

THE SMART EVENT EXPERIENCE: A MANY TO MANY CO-CREATION



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Dedicated to family, friends and the pursuit of a just, sustainable and life-giving future, honouring God through humanity, in Jesus name – Amen.

“The most beautiful thing we can experience is the mysterious.

It is the source of all true art and science.”

Albert Einstein

CONTENTS

ABSTRACT	XVI
CHAPTER 1 INTRODUCTION.....	1
1.1 BACKGROUND TO THE STUDY	1
1.2 CO-CREATION WITHIN EVENTS MARKETING AND MANAGEMENT	3
1.2 THE EVOLVING EVENT EXPERIENCE.....	5
1.3 THESIS RATIONALE.....	7
1.4 RESEARCH APPROACH	9
1.5 STRUCTURE OF THE THESIS	11
1.6 CHAPTER SUMMARY	14
CHAPTER 2 : LITERATURE REVIEW.....	16
2.1 INTRODUCTION	16
2.1.1 <i>Process of Literature Review</i>	17
2.1.2 <i>Focus of Literature Review</i>	18
2.1.3 <i>Overview of Key Literature Streams</i>	19
2.2 CO-CREATION IN SERVICE MARKETING.....	20
2.2.1 <i>Co-creation: Theoretical Origins in Marketing Management</i>	20
2.2.2 <i>The Emergence of Value Co-creation</i>	24
2.2.3 <i>Co-creation - Perspectives Beyond Marketing</i>	27
2.2.4 <i>The Evolution of SD Logic and the Co-creation of Value</i>	29
2.2.5 <i>Challenges to the Paradigm of Service Dominant Logic</i>	31
2.2.6 <i>Co-creation Roles, Interests and Tools</i>	32
2.2.7 <i>Practice as Process of Co-creation Facilitated by Tools</i>	36
2.2.8 <i>Co-creation and the Multi-Stakeholder Perspective</i>	37
2.2.9 <i>The Emergence of the Many to Many Co-creation Perspective</i>	39
2.2.10 <i>Co-creation and Stakeholders in Event Contexts</i>	41
2.2.11 <i>Co-creation Trajectories</i>	42
2.3 EXPERIENCE CO-CREATION – METHODS OF ANALYSIS IN THE EVENT CONTEXT.....	44
2.3.1 <i>TECHNOLOGY IN EXPERIENCE CO-CREATION OR CO-DESTRUCTION</i>	46
2.4 CONNECTIVITY, COMMUNITIES AND CO-CREATION IN THE EVENT CONTEXT	47
2.5 CHAPTER SUMMARY	49

CHAPTER 3 LITERATURE REVIEW EVENT EXPERIENCE AND TECHNOLOGY	50
3.1 INTRODUCTION	50
3.1.1 <i>The Event Experience – A Granular Perspective</i>	50
3.2 THEORETICAL FRAMEWORK - EVENT EXPERIENCE	60
3.2.1 <i>Event Experience - Origins</i>	63
3.2.2 <i>Event Experience - Key Perspectives</i>	65
3.2.3 <i>Defining ‘Experience’ in Event Contexts</i>	66
3.2.4 <i>Key Theoretical Models Related to Event Experience</i>	69
3.3 EVENTS AS VEHICLES OF EXPERIENCE CO-CREATION.....	76
3.3.1 <i>Event Experience – Differentiation</i>	77
3.3.2 <i>Event Experience - Stakeholders</i>	80
3.4 DESIGNING FOR THE MULTISENSORY	82
3.4.1 <i>Impact of Experience Design</i>	83
3.4.2 <i>Event Experience and The Experience Economy</i>	86
3.4.3 <i>Technological Impact on Experience Design</i>	88
3.4.4 <i>Paradigmatic Shifts in Event Experience Design</i>	89
3.5 EVENT EXPERIENCE –MEMORABILITY, MEANING AND SATISFACTION	91
3.5.1 <i>The Subjective Nature of Event Experiences</i>	91
3.5.2 <i>Managing for Event Meaning</i>	92
3.5.3 <i>Events and the Symbolic</i>	93
3.5.4 <i>Event Experiences as Serious Leisure</i>	95
3.5.5 <i>Event Fans – From Fun to Serious</i>	96
3.5.6 <i>Framing for Meaning - Event Experience Dimensions</i>	97
3.5.7 <i>Event Experience - Memorability and Satisfaction</i>	98
3.5.8 <i>Unlocking Satisfaction Through the Extraordinary and Meaningful..</i> 99	
3.6 TECHNOLOGIES AND ICTS IMPACTING EVENTS	100
3.6.1 <i>Connection, Commerce and Creativity – Technologies Driving Forces</i> 101	
3.6.2 <i>Types of Event Technology Leveraging Mobile</i>	103
3.6.3 <i>Customer Centric Technology and ICT in the Event Context</i>	105
3.6.4 <i>Event Technology Facilitating Event Management</i>	105
3.6.5 <i>ICTs and the Evolving Event Experience</i>	106
3.6.6 <i>Smart and Social ICTs - Innovations, Integrations and Insights</i>	108
3.6.7 <i>Smart Destinations and Event Contexts</i>	109

3.7 GAPS IN THE LITERATURE	112
3.8 CONCEPTUAL MODELS DEVELOPED TO CARRY OUT THIS STUDY	115
3.8.1 <i>Conceptualising the Smart Event Experience</i>	117
3.8.2 <i>Measuring Fan Co-Creation’s Impact on the Digital Event Experience</i>	118
3.8.3 <i>Conceptual Framework of the Emerging Smart Event Experience</i>	119
3.9 LITERATURE CHAPTERS: SUMMARY	120
CHAPTER 4 METHODOLOGY	123
4.1 CHAPTER INTRODUCTION	123
4.1.2 <i>The International North West 200 Road Racing Event</i>	126
4.1.3 <i>The Causeway Coast Golf Amateur Tournament</i>	127
4.2 PHILOSOPHICAL PERSPECTIVE OF THIS STUDY	128
4.2.1 <i>Research Paradigms in Events, Leisure and Tourism</i>	129
4.2.2 <i>Paradigmatic Reasoning and Warrant</i>	129
4.2.3 <i>Ontological Specifics</i>	131
4.2.4 <i>Epistemological Specifics</i>	133
4.2.5 <i>Adopting Mixed Methods</i>	133
4.2.6 <i>Comparative Perspectives of Mixed Methods in Event Studies</i>	134
4.3 PHENOMENOLOGICAL RESEARCH IN EVENT STUDIES.....	135
4.3.1 <i>Foundations of Phenomenology</i>	135
4.3.2 <i>Phenomenology in Tourism</i>	136
4.3.3 <i>The Digital Experience Phenomenon</i>	136
4.3.4 <i>Phenomenology in Mixed Methods Research</i>	137
4.3.5 <i>Netnography - The Field Study of Computer-Mediated Interaction</i>	138
4.3.6 <i>Taking a Netnographic Approach to Event Studies</i>	139
4.3.7 <i>Impact of the Netnographic Approach to the Study of Events</i>	139
4.3.8 <i>The Case for Methodological Innovation</i>	140
4.4 A CRITIQUE OF MIXED METHODS PHENOMENOLOGICAL RESEARCH	142
4.4.1 <i>Scientific Basis of Mixed Methods Phenomenological Research</i> ...	142
4.4.2 <i>Philosophical Bases of Mixed Methods Phenomenological Research</i>	143
4.4.3 <i>Challenges of Mixed Methods Phenomenological Research</i>	143
4.4.4 <i>Challenges of the Netnographic Approach</i>	144
4.4.5 <i>The Warrant for Adopting a Mixed Methods Phenomenological Research</i>	145
4.5 PHASES OF MIXED METHODS PHENOMENOLOGICAL RESEARCH	146

4.5.1 Pre-Research Phase: Literature Review	147
4.6 PHASE 1: NETNOGRAPHY LEADING TO PROJECTIVE REFLECTIVE ANALYSIS..	149
4.6.1 Netnographic steps	150
4.6.2 Netnographic Locus	150
4.6.3 Engagement, Immersion and Data Collection.....	152
4.6.4 Exploration, Iteration and Experimentation	153
4.6.5 Approach Rationale - Netnographic	153
4.6.6 Sampling and Research Design.....	154
4.6.7 Sampling Process – Projective Reflective Analysis.....	156
4.6.8 Data Collection and Analysis.....	157
4.7 PHASE 2: INTERPRETIVE PHENOMENOLOGICAL ANALYSIS (IPA) OF SECRET FACEBOOK FOCUS GROUPS.....	158
4.7.1 Approach Rationale - Netnographic	160
4.7.2 Research Design and Sampling Process– Secret Facebook Focus Groups (SFFG)	161
4.7.3 Data Collection and Analysis Post SFFG.....	164
4.8 PHASE 3A: SEMI-STRUCTURED INTERVIEWS OF EVENT STAKEHOLDERS AND SPECIALIST ACADEMICS.....	166
4.8.1 Approach Rationale – Semi-Structured In-depth Interviews.....	167
4.8.2 Research Design and Sampling Process - Semi-Structured in Depth Interviews.....	168
4.8.3 Data Collection and Analysis.....	170
4.9 PHASE 3B: EMBEDDED QUANTITATIVE ANALYSIS OF DIGITAL EVENT EXPERIENCE	171
4.9.1 Approach Rationale – Quantitative Analysis	173
4.9.2 Hypothesis Introduction.....	173
4.9.3 Hypothesis Development	174
4.9.4 Research Design – Repeat Cross-Sectional Study.....	176
4.9.5 Data Collection and Analysis.....	177
4.10 CONSIDERATIONS, LIMITATIONS AND JUSTIFICATION FOR MIXED METHODS PHENOMENOLOGICAL RESEARCH	178
4.10.1 ETHICS AND HEALTH AND SAFETY CONSIDERATIONS	179
4.11 CHAPTER SUMMARY	181
CHAPTER 5 FINDINGS I	183

5.1 INTRODUCTION	183
5.2 OVERVIEW	184
5.2.1 <i>Sample and Approach</i>	185
5.3 BACKGROUND TO PERFORMANCE AND PREFERENCES FOR NW200 EVENT APP.....	186
5.3.1 <i>Expectation of performance – App Loading</i>	187
5.3.1 <i>Actor Network – People, Technology and Places</i>	189
5.3.2 <i>Dynamically Informed, Integrated and Entertained - App Preferences for Event Experience</i>	190
5.3.3 <i>Geo-based Information - Opportunities and Challenges</i>	191
5.3.4 <i>Dynamic Information - Opportunities and Challenges</i>	193
5.3.5 <i>Integration and Identity - Opportunities and Challenges</i>	194
5.3.5 <i>Personalisation - Opportunities and Challenges</i>	195
5.4 FINDINGS DERIVED FROM DEEDD DIMENSIONS.....	197
5.4.1 <i>Information – dynamic expectancy</i>	198
5.4.2 <i>Entertainment – Immersive and Integrated</i>	200
5.4.3 <i>Integration –Socialisation of The Tribe Through New Media</i>	202
5.4.4 <i>Identity – the Data Self</i>	204
5.4.5 <i>Barriers to Sought Experience Outcomes</i>	206
5.4.6 <i>Privacy vs Personalisation</i>	209
5.4.7 <i>The Barrier of Mobile Connectivity</i>	211
5.4.8 <i>Usage and Usability Enablers</i>	213
5.4.9 <i>DEEDD Challenges</i>	216
5.4.10 <i>User Driven Ideas</i>	218
5.5 REVISED DEEDD FRAMEWORK.....	221
5.5.1 <i>From Simple to Smart – The Digital Event Experience</i>	225
5.5.2 <i>Co-creation, Co-destruction and an Outcomes Perspective</i>	226
5.5.3 <i>Interaction, Engagement and Smartness of Event Fans</i>	227
5.6 CHAPTER SUMMARY	228
CHAPTER 6 FINDINGS II	230
6.1 INTRODUCTION	230
6.2 CO-CREATING THE EVENT EXPERIENCE THROUGH ICT.....	230
6.2.1 <i>Overview</i>	230
6.3 PERSONALISATION - THE SUBJECTIVE PURSUIT OF EXPERIENCE VALUE.....	232
6.3.1 <i>Expectations</i>	232

6.3.2	<i>Prior Experiences</i>	235
6.3.3	<i>Resources</i>	236
6.3.4	<i>Technology Spill</i>	238
6.4	PROCESSES - AND THE CREATION OR DESTRUCTION OF EXPERIENCE VALUE	240
6.4.1	<i>Preference in Processing Experience Value</i>	240
6.4.2	<i>Contexts and the Process of Experience Enhancement</i>	242
6.4.3	<i>Creation of Experience Value</i>	243
6.4.4	<i>Challenges to Experience Enhancement (or Co-Destruction)</i>	244
6.5	PEOPLE - RELATIONAL PURSUIT OF EXPERIENCE VALUE.....	246
6.5.1	<i>Identities and Experience</i>	246
6.5.2	<i>Communities of Experience</i>	248
6.5.3	<i>Communication, Creativity and Cooperation Bringing Value in Experience</i>	250
6.5.4	<i>Rituals, Nostalgia and Symbolism</i>	252
6.6	PLACES - THE LOCATIONS OF EXPERIENCE VALUE	254
6.6.1	<i>Physical Realm</i>	254
6.6.2	<i>Digital Realm</i>	256
6.6.3	<i>Integrated Realm</i>	257
6.6.4	<i>Future Impacts</i>	258
6.7	DIGITAL EVENT EXPERIENCE CO-CREATION – A CONCEPTUAL FRAMEWORK	261
6.7.1	<i>An overview of the Model</i>	261
6.7.2	<i>Rituals and the Digital Event Experience</i>	264
6.7.3	<i>Realms of the Digital Event Experience</i>	265
6.7.4	<i>Realities of the Digital Event Experience</i>	266
6.7.5	<i>Renewal of the Event Experience</i>	267
6.7.6	<i>Reviewing the Event Experience</i>	269
6.7.7	<i>Relational elements of the Digital Event Experience</i>	270
6.7.8	<i>Resourcing the Digital Event Experience</i>	271
6.8	<i>Chapter Summary</i>	275
CHAPTER 7 THE EMERGING SMART EVENT EXPERIENCE – A TECHNOLOGY ENABLED MANY TO MANY CO-CREATION.....		276
7.1	MTM CO-CREATION’S ROLE IN THE EMERGENT EXPERIENCE.....	276
7.1.2	<i>Co-creation Roles and Experience Outputs</i>	279
7.1.3	<i>Co-Creating the Emergent Experience</i>	280

7.1.5 <i>The Mediating Role of ICTs in MTM Co-creation</i>	285
7.2 EMERGENT EXPERIENCE ENGAGEMENT FRAMEWORK	285
7.2.1 <i>Redefined: Multiphasic Digital Event Experience</i>	286
7.2.2 <i>The Digital Event Experience Phenomena Conceptualised</i>	287
7.2.3 <i>The Multiphasic Digital Event Experience</i>	289
7.2.4 <i>People and Personalisation</i>	289
7.3 MEDIATING THE EMERGENT EXPERIENCE	293
7.4 COMPETITIVE ADVANTAGE FROM EMERGENT EVENT EXPERIENCES	298
7.5. THE SMART EVENT EXPERIENCE	301
7.6 CHAPTER SUMMARY	303
CHAPTER EIGHT: CONCLUSIONS	305
8.1 MEETING THE RESEARCH AIM AND OBJECTIVES	305
8.2 CONTRIBUTION TO THEORY	309
8.3 CONTRIBUTION TO PRACTICE	312
8.4 WIDER IMPLICATIONS OF THE STUDY	316
8.5 STUDY LIMITATIONS	319
8.5.1 <i>Limitations of The Mixed Method Study and Consideration of MMPR320</i>	
8.5.2 <i>Implications and limitations Related to Experience and ICTs</i>	321
8.5.3 <i>Quantitative Complementarity</i>	322
8.5.4 <i>Management and Resource Implications</i>	322
8.6 FUTURE RESEARCH	323
8.7 REFLECTION ON THE PROCESS	325
8.8 CONCLUDING REMARKS	326
REFERENCES	329
APPENDICES	363
APPENDIX 1:	363
APPENDIX 2:	365
APPENDIX 3.	367
APPENDIX 4.	368
APPENDIX 5.	369
APPENDIX 6.	377
APPENDIX 7.	379
APPENDIX 8.	381
APPENDIX 9.	383

APPENDIX 10	385
APPENDIX 11	387
APPENDIX 12.....	388
APPENDIX 13.....	389
APPENDIX 14.....	391
APPENDIX 15.....	394
APPENDIX 16.....	396
APPENDIX 17.....	400
APPENDIX 18.....	401
APPENDIX 19.....	402
APPENDIX 20.....	403
APPENDIX 21.....	404
APPENDIX 22.....	406
APPENDIX 23.....	407
APPENDIX 24.....	410

FIGURES

FIGURE 1-1 STRUCTURAL OUTLINE OF THE THESIS (ADAPTED FROM NEUHOFER, 2014).....	15
FIGURE 2-1 STAGES IN SCOPING LITERATURE REVIEW (ADAPTED FROM RUMRILL ET AL., 2010).....	17
FIGURE 2-2 VALUE CREATION ROLE, EXCHANGE AND OUTCOME (AGRAWAL AND RAHMAN, 2015, P.147).....	33
FIGURE 2-3 FUTURE TRAJECTORIES OF SD LOGIC BASED ON DELPHI METHOD, POHLMANN AND KAARTEMO (2017, P.62).....	43
FIGURE 2-4 ON-SITE CO-CREATION EXPERIENCE: A CONCEPTUAL FRAMEWORK (ADAPTED FROM CAMPOS ET AL., 2015, P.24).....	46
FIGURE 3-1 CO-CREATING THE EVENT EXPERIENCE ADAPTED FROM NEUHOFER ET AL., (2012, P.40).....	62
FIGURE 3-2 ADAPTED FROM HUMAN EXPERIENCE DIMENSIONS - BEARD AND RUSS (2017).....	68
FIGURE 3-3 - MODEL OF THE PLANNED EVENT EXPERIENCE (ADAPTED FROM GETZ, 2008, P.413)	69
FIGURE 3-4 THE FOUR REALMS OF EXPERIENCE (ADAPTED FROM PINE AND GILMORE, 1998, P.102).....	71
FIGURE 3-5 THE PRISM OF EVENT EXPERIENCE (MORGAN, 2008, P.87)	73
FIGURE 3-6 A MODEL OF INDIRECT AND DIRECT USE-VALUE CREATED AT AN EVENT (SOURCE: ANDERSSON AND AMBRECHT, 2014, P.238)	74
FIGURE 3-7 A CONCEPTUAL MODEL OF THE EVENT EXPERIENCE (GEUS ET AL., 2016, P.277).....	75
FIGURE 3-8 STAKEHOLDER TYPOLOGY OF A HALLMARK EVENT IN THE CONTEXT OF EVENT TOURISM: THE EDINBURGH FESTIVAL FRINGE (TODD ET AL., 2017)	81
FIGURE 3-9 EXPERIENCE DESIGN FRAMEWORK (ADAPTED FROM BERRIDGE, 2012A, P.284).....	90
FIGURE 3-10 EXPERIENCE CO-CREATION IN SMART TOURISM DESTINATIONS. SOURCE: BUONINCONTRI AND MICERA (2016, P.296)	111
FIGURE 3-11 DIGITAL EVENT EXPERIENCE DIAGNOSTIC AND DEVELOPMENT (DEEDD) THEORETICAL FRAMEWORK.....	116
FIGURE 3-12 THE MULTIPHASIC DIGITAL EVENT EXPERIENCE	120

FIGURE 4-1 METHODOLOGY CHAPTER OVERVIEW.....	123
FIGURE 4-2 METHODOLOGICAL OVERVIEW OF MMPR APPROACH.....	146
FIGURE 4-3 NETNOGRAPHIC STEPS (ADAPTED FROM KOZINETS, 2010, P.61)	150
FIGURE 4-4 STAGES AND PROCESS OF SEMI-STRUCTURED INTERVIEWS.....	168
FIGURE 4-5 RESEARCH ETHICS – PROCESS AND CATEGORISATION AT ULSTER UNIVERSITY	180
FIGURE 5-1 DIGITAL EVENT EXPERIENCE DIAGNOSTIC AND DEVELOPMENT (DEEDD) THEORETICAL FRAMEWORK.....	185
FIGURE 5-2 APP PERFORMANCE LIKERT TYPE MEASURE: 1=POOR 5=EXCELLENT	188
FIGURE 5-3 FEATURES PERCEIVED TO IMPROVE EVENT EXPERIENCE RANKED IN ORDER OF PREFERENCE	190
FIGURE 5-4 MOST FREQUENT STEMMED WORDS: OPPORTUNITIES/CHALLENGES LOCATION SERVICES	192
FIGURE 5-5 MOST FREQUENT STEMMED WORDS: OPPORTUNITIES/CHALLENGES OF PUSH NOTIFICATION	194
FIGURE 5-6 MOST FREQUENT STEMMED WORDS: OPPORTUNITIES/CHALLENGES OF SOCIAL FEATURES.....	195
FIGURE 5-7 MOST FREQUENT STEMMED WORDS: OPPORTUNITIES/CHALLENGES OF PROFILE INFORMATION.....	196
FIGURE 5-8 DEEDD DIMENSIONS FOLLOWING INITIAL CODING	197
FIGURE 5-9 THE REVISED DEEDD FRAMEWORK	224
FIGURE 6-1 SUPERORDINATE THEMES - CO-CREATION AND THE DIGITAL EVENT EXPERIENCE	231
FIGURE 6-2 - TOP PRIORITY FEATURE FOR EVENT APP.....	240
FIGURE 6-3 MTM CO-CREATION AND THE DIGITAL EVENT EXPERIENCE: THEMES AND CATEGORIES.....	264
FIGURE 7-1 CO-CREATION ROLES - IMPACT AND EVENT PHASE	282
FIGURE 7-2 THE MULTIPHASIC DIGITAL EVENT EXPERIENCE	289
FIGURE 7-3 TYPOLOGY OF ENGAGEMENT – EMERGENT EXPERIENCE.....	290
FIGURE 7-4 MOBILE FRAMEWORK FOR DIGITAL EXPERIENCE ANALYSIS	295

TABLES

TABLE 2-1 HISTORICAL DEVELOPMENT OF SERVICE MARKETING AND MANAGEMENT (ADAPTED FROM NEUHOFER, 2014)	23
TABLE 2-2 SD LOGIC FOUNDATIONAL PRINCIPLES ADAPTED FROM VARGO AND LUSCH (2008B).....	26
TABLE 3-1 GRANULAR ELEMENTS OF THE EVENT EXPERIENCE.....	52
TABLE 3-2 FOCUSING THE REVIEW THROUGH GRANULARITY.....	60
TABLE 3-3 TYPOLOGY OF PLANNED EVENTS – ADAPTED FROM GETZ (2016, P.102)	78
TABLE 3-4 THE 5 KEY PARAMETERS OF EXPERIENCE. (ADAPTED FROM O’SULLIVAN AND SPANGLER, 1999, P.99).....	85
TABLE 4-1 AIMS, OBJECTIVES, PHASES AND METHODS OF STUDY	125
TABLE 4-2 SMART TOURISM – STUDY PRE-DETERMINANTS. ADAPTED FROM GRETZEL ET AL. (2015C).....	152
TABLE 4-3 STEPS IN IPA UTILISING A SYSTEMATIC APPROACH IN CADQAS SOFTWARE	160
TABLE 5-1 ACTORS AND ACTANTS INVOLVED IN VALUE DIALOGUE	189
TABLE 5-2 USE AND NON-USE OF TECHNOLOGY - CO-CREATION AND CO- DESTRUCTION.....	222
TABLE 5-3 DIGITAL EVENT FAN ENGAGEMENT – TYPOLOGY	228
TABLE 6-1 TECHNOLOGY AND STAKEHOLDER LEVERAGING MTM IN THE EVENT CONTEXT	273
TABLE 7-1 RESULTS OF 2 YEAR REPEAT CROSS SECTIONAL STUDY.....	278
TABLE 7-2 EXAMPLES OF MTM ROLES AND ACTIVITIES OF CO-CREATION OF EVENT APP EXPERIENCE.	284
TABLE 7-3 BEYOND MEDIATION: CONTEXT AND TYPES OF MTM CO-CREATION IMPACTS THROUGH TECHNOLOGY.....	297

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Abstract

The use of information communication technology (ICT) by consumers in event contexts with the aim to enhance the event experience has increased significantly in recent years. This study serves to explore how such experiences are evolving in an era driven by ubiquitous connectivity, the search for more personalised experience and through the conduit of smart and social technologies. The paradigm shift toward customer co-creation is particularly emphasized in the service marketing and management disciplines, through service dominant (SD) logic as a means of competitive advantage but remains critically under-researched in the context of many to many (MTM) co-creation enabled by technology.

At its heart, this study adopts interpretative phenomenological analysis (IPA) as a generative approach and is part of an overall research design classified as mixed methods phenomenological research (MMPR). It focuses on exploring and evaluating value co-creation in the event context as an MTM enabled experience through ICTs within the digital event experience. Exploration in the first phase is developed through projective reflective analysis and findings from an events context are evaluated over a 2-year period and underpinned with findings from event stakeholder and specialist interviews. The research focuses on exploring and evaluating value co-creation through ICTs within the digital event experiences of event fans at Ireland's largest outdoor sports event.

This study provides an original and significant contribution to service marketing theory and SD Logic in particular, by generating new knowledge around MTM technology enabled co-creation in the event context. The study is the first to develop frameworks around these dimensions in emerging experience contexts, where connectivity and interoperability, through smart tourism destination strategy offer new strategic opportunity. The conceptualisation of the Multiphasic Digital Event Experience provides a new theoretical framework from which knowledge can be derived and applied. This new knowledge has wider implications which have both academic and industry impact, particularly in new contexts such as the emerging smart event experience.

List of Abbreviations and Acronyms

API	-	Application Programming Interface
App	-	Application
AR	-	Augmented Reality
B2B	-	Business to Business
B2C	-	Business to Customer
C2C	-	Customer to Customer
CADQAS	-	Computer Assisted Qualitative Data Analysis Software
CCGolf	-	The Causeway Coast Amateur Golf Tournament
CQ	-	Closed Question
DEEDD	-	Digital Event Experience Diagnostic & Development Framework
EES	-	Event Experience Scale
FB	-	Facebook
ICT	-	Information Communication Technology
IMC	-	Integrated Marketing Communications
IoT	-	Internet of Things
IPA	-	Interpretive Phenomenological Analysis
MMPR	-	Mixed Methods Phenomenological Research
NFC	-	Near Field Communication
NW200	-	International North West 200 Motorcycle Road Race
SD	-	Service Dominant
SFFG	-	Secret Facebook Focus Group
STD	-	Smart Tourism Destination
SMS	-	Short Message Service
TRA	-	Theory of Reasoned Action
TAM	-	Technology Acceptance Model
U & G	-	Uses and Gratifications Theory
UTAUT	-	Unified Theory of Acceptance and Use of Technology
VR	-	Virtual Reality
WTP	-	Willingness to Pay

Chapter 1 INTRODUCTION

1.1 Background to the Study

Mobile technology is a critical driver of the demand for and consumption of digital event experiences. In the context of relating why 'digital' is causing experiences to shift paradigmatically, Tanti and Buhalis (2017, p.122) highlight that "digital media, software, and devices can increase communication, gather information, co-create, and improve experiences." These tools are accelerating change in experience design and experience consumption and opening up new contexts of connection, integration and experience enhancement (Tussyadiah et al., 2018)

The events industry is fast becoming a place of experimentation and implementation of digitally driven strategy (Inversini and Williams, 2015). This is to leverage the potentialities, efficiencies and opportunities delivered through digital connectedness (Benckendorff and Pearce, 2012). While attending events, it is evident in viewing vast swathes of event fans, intermittently checking devices, that a spill-over from mobile technology in particular, is causing event experiences to change (van Winkle et al., 2016). Mobile has created demand for, and expectation of, ways to experience events in new technology-enhanced ways but is by no means the panacea for better event outcomes (Neuhofer et al., 2012; Hutchins, 2016; Neuhofer, 2016a). Martin and Cazarre (2016, p.175) citing Gabriel (2010) are clear in denoting that possibility as they posit that "digital is the platform that gives vent to interactivity, but not necessarily a good experience." This is an important point, which is often overlooked in the pursuit of novelty and

newness in event contexts, often to experience detriment, in the changing realm of event communications (Hutchins, 2016).

A proliferation of mobile apps in recent years has begun to support the re-conceptualisation of the event experience, allowing users “to visualize themselves in relation to key people, the event schedule, their location, and personal needs” (Luxford and Dickinson, 2015, p.44). This new relativity is driving a renewed focus from academics and practitioners seeking to understand the impact of technology enabled co-creation through Information Communication Technology (ICT). This study focuses on the context of events and on ‘event experiences’, the core phenomenon, across their multi-phasic nature (Getz and Page, 2016). This new knowledge will be critical in harnessing the capability of ICTs to deliver more personalised and targeted experience outcomes (van Winkle et al., 2016). As such the seeking of methods by which to better understand technology enabled co-creation are increasingly in demand, particularly in event contexts (Finkel et al., 2013).

Experience improvement is not always achieved through the use of ICTs, and experience co-destruction can happen for a myriad of reasons (Neuhofer et al., 2016a). A growing number of people are seeking disconnection from the constant demands of ICTs, and as such, this sought experience objective must be acknowledged and considered strategically (Hutchins, 2016; Neuhofer 2017; Tanti and Buhalis, 2017). It is therefore critical to contexts of co-creation such as ‘event experience’, that enhancement with event fans through ICTs is better understood given the opportunity and challenge these present from a service marketing and management perspective and specifically in the context of event management (Luxford and Dickinson, 2015).

The impacts of escalating use of technology in mediating experience (Tussyadiah and Fessenmaier, 2009) may create a juxtaposition for many event fans who are reliant on ICTs but are aware of their effect on being present and engaged in the event (Kinnunen and Haahti, 2015). While ICTs in these many to many (MTM) contexts such as events are increasing co-creation activity, there are significant challenges for service practitioners in managing this multi-phasic and extended experiencing, particularly in the

context of events, across spatial and temporal boundaries (Hudson and Hudson, 2013).

Without a better understanding of technology enabled co-creation at play within experiences such as events, and better understanding of the outcomes sought by consumers in these contexts, and the impacts of meeting these desired experience outcomes, knowledge is limited (Vargo and Lusch, 2004a; Getz and Page, 2016). It is critical, therefore, that new knowledge is generated to meet the challenge of delivering meaningful, memorable and satisfying experiences to a diverse range of consumers (Bolan, 2014).

1.2 Co-creation within Events Marketing and Management

Central to the understanding of value co-creation in the creation and consumption of event experiences is a focus on the contributions of scholars to marketing and management research (Vargo and Lusch, 2017). This permeates understanding of how co-creation as a concept has impacted with such significance in services marketing and management more generally and with a specific focus on its emergent impact within Event Studies (Horbel et al., 2016)

The wider context of service management has developed and evolved from earlier conceptions of value conceived of as solely provided through the exchange of goods; what is often termed goods dominant logic (Palmer, 2005). A subsequent shifting of perspective engendered by a more prosperous time post-war, moved society toward richer conceptualisations and varying presentations of value. Indeed, the paradigmatic shifting toward experiential marketing (Holbrook and Hirschman, 1982), or relational marketing (Palmer, 2005), which are both more celebratory of the individual, laid the path for service dominant (SD) logic to become the dominant logic and economic perspective of value moving into the late 20th Century (Vargo and Lusch, 2006). SD Logic and wider discourse on co-creation is unpacked more fully in chapter 2.

As Events and Festival Studies emerged as a unique area of study, contributions to positioning and prioritising how they are understood in relation to service

discourse, were provided by authors such as O'Neill et al., (1999, p.158). O'Neill argues an event to be “essentially a service in that it consists of intangible experiences of finite duration, within a temporary, managed atmosphere.” This service quality perspective prevailing in Event Studies is critical in how experiences are measured and is a dominant means by which satisfaction and future behaviour are seen to be affected and are thus a focus of measurement either directly or indirectly (Yuan and Jang, 2008). As has been noted in previous studies, perspectives of consumer satisfaction are critical to customer loyalty, which is a fundamental of an event's economic sustainability through profitability (Grönroos and Voima, 2011; Christoph et al., 2016). Thus, the construct of satisfaction derived from service quality is pivotal in assuring loyalty and supporting the future purchase intention of event goers (Kim and Severt, 2011).

Seeking this level of loyalty through providing ever more satisfying experiences, led to the conception of the experience economy (Pine and Gilmore, 1999), which has seeded much of what is now conceived of as pivotal in the growth of experience and value conceptions in literature today (Quinn, 2013). A key perspective of such experience value is that eluded by Holbrook (1999, p.9) who presents value as something that “resides not in the product purchased, not in the brand chosen, not in the object possessed, but rather in the consumption experience(s) derived therefrom.” This is important in considering the sources of value creation inherent in the socially dense spaces which are the social context festivals and events exist (Rihova, 2015; Rihova et al., 2018).

Value is created or co-created and perceived in several ways. Critically, in the experience domain, it rests regarding impact and outcomes, with the consumer themselves as a highly subjective phenomenon, with all related idiosyncrasies (Vargo and Lusch, 2008). Thus, within the study of tourism and events and in contrast to the value outcome perspective of Pine and Gilmore (1999), value as phenomenological perspective assumes that only the consumer can make sense of their internal subjective experiences of value (Rihova et al., 2015). This adds further impetus to the adoption of phenomenological studies within the events domain as a means of deeper understanding of value co-creation due to its subjectivity (Payne et al., 2008).

1.2 The Evolving Event Experience

In determining a warrant for the pursuit of new knowledge, Donald Getz has set such an aim for Event Studies by focusing on the event experience as core phenomenon. In summing up an appropriate agenda he highlights that:

“a variety of research approaches and many comparisons will be required, from evaluations of those attending events to qualitative studies of what people are looking for, meanings they attach to their experiences, and influences on future attitudes and behaviour” (Getz, 2008, p.421)

What Getz and many of his contemporaries have not seized on, to a significant extent, is the proliferation of ICTs and their impact on the co-creation of elements of the event experience. This is important due to the extent to which the liminal experience is potentially affected and how the overall experience journey is changing due to the integration of consumers seeking a new form of multi platform experience which Richards (2017) citing Boswijk et al. (2007) refers to as ‘experience 3.0’.

Berridge (2014a) gives some opportunity to bring the perspectives of experience together through arguing that event planners must manage the entire environment, not just the temporal element. Elements of the experience itself, where interaction takes place, is where event teams and stakeholders in that experience need to be cognizant of the outcomes sought through participation in an event’s digital offering. Nordvall (2014, p138) proposes ‘smartphone applications including GPS’ as an important service encounter in an event’s design which can impact social interactions but presents little from the perspective of ICT and technology impact regarding findings to support this.

Moving the debate forward, Inversini and Williams (2017) highlight the opportunity for innovation that organisations who embrace social media can leverage. There is potential to interact with prospective and current event goers and through these personal touch points in MTM contexts, co-create value before during and after an event is experienced (Buhalis and Foerste, 2015; Inversini et al., 2016; Neuhofer et al., 2016a). This heightened activity around the event - where participants can co-create value with each other and extend their experiences is one area where event management and the

associated brands who support events are seeking to leverage (Rihova et al., 2015; Rihova et al., 2018). This serves to deepen relational value, heighten anticipation, extend the experiences across geographical boundaries and span into current and new digital realms (Horbel et al., 2016). Technology enabled co-creation in event experience contexts are still significantly under-researched from an empirical perspective as the literature review that follows will evidence and which is aimed to be unpacked in this thesis focused on MTM co-creation through the context of the digital event experience (Bustard et al., 2017).

In summary, technology enabled co-creation is significantly impacting event experiences and the potential of this through the MTM context of co-creation provides an excellent platform to contribute new knowledge to service marketing through the SD Logic lens (Vargo and Lusch, 2004a; Agrawal and Rahman, 2015). Across social media and through mobile technologies, this trend is outpacing the ability of many event teams to strategically, and sustainably manage the exponential growth in its use (Hudson and Hudson, 2013). In arguing for new knowledge focused on digital experience components, Luxford and Dickson (2015, p.44) correctly identify the need "to feed into a better conceptual understanding of the event experience that will evolve alongside technological capabilities."

Therefore, an explorative study of this 'evolving event experience' through the SD lens considerate of technology enabled co-creation will provide a better understanding of co-creation in the wider service marketing and management perspectives but also specific to the event experience. Co-creation is identified by Getz and Page (2016) as a critical future trend and as a means of creating more authentic event experiences. Thus, MTM co-creation of the digital event experience offers a clear strategic opportunity. Therefore creating new knowledge and filling a gap in the literature pertaining to co-creation (Rihova et al., 2015; Vargo and Lusch, 2017; Best et al., 2018) through the context of event experiences is warranted (Van Winkle et al., 2015; Robertson et al., 2015; Bolan, 2014; Geus et al., 2016; Richards, 2017).

1.3 Thesis Rationale

Given the introductory analysis and positioning provided in the previous section, the following thesis-hypothesis is offered:

“Co-creation of an event’s digital experience through information and communication technology (ICT) will improve participant satisfaction and enhance the event experience overall.”

Events that facilitate participant co-creation in MTM contexts and explore how consumers experience and communicate digitally will have a better understanding of how to increase overall event satisfaction. This focus will create more experience value in the process and facilitate consumers toward enhanced digital event experiences through co-creation.

Chaffey (2016, p.4) defines digital as being the application of “technologies based on the internet, world wide web and wireless communications” and often deployed as disruptive and transformative innovations. Bolan (2014, p.201) citing Brown (2012) discusses how “mobile applications or ‘apps’ are increasingly being used on smartphones or other devices (such as tablets) to access news, games, entertainment, weather and other information.” Building on the contextual and dynamic geo-connectivity of these technologies, Bolan further posits that the event sector can ill afford to ignore their impact, especially given the usage and experience engagement offered through digital and mobile touchpoints.

Analysing the behaviours, expectations and processes of participants of the event experience – focusing specifically on experiences augmented by ICTs, the interest here is in whether ICTs, through mobile platforms as conduits to MTM co-creation are enhancing the experience and providing satisfaction. In actuality, how well does the co-creation of elements of the digital experience of events support theoretical propositions regarding the experiential journey? By boundary spanning and exploring the potential of emergent trends (ubiquitous connectivity, open technology and the intelligent web) can propositions be developed relating to future technology enhanced co-creation processes?

The emergence of this more ‘intelligent web’ and the initiation of ‘smart’ technologies is significantly changing the industrial, economic, political and socio-cultural dynamics of events and destinations (Buhalis and

Amaranggana, 2015; Koo et al., 2016; Buhalis and Leung, 2018). A proliferation of new models of engagement across the event supply chain is already disrupting the way we experience events (Live video: Facebook Live, Periscope, VR platforms, Travel Tech: Uber, Airbnb and Event Tech: EventEvo/Attendify). These new platforms are challenging traditional event supply chains who are either adapting or standing still during this rapid, rampant and revolutionary period of development. The 'scaling' opportunities afforded by such platforms at a relatively low investment (Instagram growth vs Kodak decline in 2012) provide significant potential returns to early stage investors, and thus we can expect much more disruption and an ever-increasing pace of change.

There is inherent value in event stakeholders exploring participant experiences in collaborative ways (van Winkle et al., 2016). This can be achieved by focusing on barriers and enablers of technology use, personal event experience objectives and how an event experience is designed to meet these digital desires. The ultimate aim is to explore user integration, which is most consistent in delivering positive, integrated and 'memorable' experiences for participants across what Geus et al. (2016) present as cognitive, conative, affective and novel means. The event experience as a planned activity is therefore underpinned by a process of co-creation (Getz and Page, 2016).

Vargo and Lusch (2016, p.8) define value co-creation as "the actions of multiple actors, often unaware of each other, that contribute to each other's wellbeing." Exploration of this value from a subjective and individualistic perspective is critical, given that value is always 'uniquely and phenomenologically determined by the beneficiary' (Lusch and Vargo, 2014, p. 15). In focusing this study, the following research question is posited as a means of exploring the granularity of the digital event experience:

How are event experiences evolving in an era of near-ubiquitous connectivity, driven by expectations of more personalised experience and through the conduit of smart and social technologies?

To attempt a rigorous and systematic appraisal of this emerging reality, the following sub-questions are submitted as a means of exploring, evaluating

and developing theory pertinent to co-creation in such MTM configurations, such as the emerging digital event experience:

- How are event experiences and experience co-creation changing through ICTs and mobile technology in the pre-event, during and post-event phases?
- What are the critical experience outcomes sought through technology enabled MTM co-creation from the consumer perspective in the context of an event by spectators or participants in international (sports) events?
- How can the event experience and the co-creation of the experience be enhanced through technology enabled MTM co-creation from the consumer perspective in an event context?
- Will MTM co-creation of the digital event experience through social media with spectators of an international event improve satisfaction?
- What holistic model of engagement can be created to improve experience outcomes through technology enabled MTM co-creation using the context of events for event spectators?

These are important questions, given the pervasive use of technologies by participants of events in their discovering and exploring. Inversini and Williams (2017, p.279) rightly posit the plethora of platforms through which events are co-experienced and as such are not 'effectively exploited' by the industry. They assert that "scant attention is paid to the impact of digital technologies and social media, in the events management literature" (p.284).

This is of particular significance and an appropriate warrant for further and deeper study of MTM co-creation in the context of the digital event experience and focused on the event goer as an agent of experience co-creation (Buhalis and Foerste, 2015; Rihova, 2015; Neuhofer et al., 2016b; Richards, 2017; Rihova et al., 2018).

1.4 Research Approach

This project will first review the literature related to co-creation before granularising 'the event experience' and further unpacking the impacted elements of experience in digital contexts. This is important as a means to

get an understanding of the emerging event experience from a more holistic perspective (Neuhofer et al., 2015a; Packer & Ballantyne, 2016). Following this review of extant literature related to co-creation, event experience and the ICTs enabling experience co-creation, an explorative projective reflective analysis of a component of the digital event experience is conducted to better understand the uses and gratifications sought by fans and experienced by participants through ICTs (Dwyer et al., 2011). At the core of the study is an Interpretative Phenomenological Analysis (IPA) which focuses on an actual co-creation (co-evaluation/co-ideation) engagement with event fans targeting an improved event app experience at an international event (Jahn & Kunz, 2012). The main focus is on the International Northwest 200, which is a motorcycle road-racing event celebrating its 90th year in 2019 and is Ireland's largest outdoor sporting festival. The results of the study will include an evaluative measure of the event app experience pre and post co-creation intervention to evaluate satisfaction, enhanced experience and other measures of positive experience (Pasanen & Konu, 2016; Hudson et al., 2015; Richards, 2017). Finally, a synthesis of the conceptual frameworks created throughout the study will be supported with evidence from key stakeholders and academics of this emerging experience. These will highlight emergent issues in order to generate a new holistic model of experience engagement supporting technology enabled MTM co-creation of the emerging smart event experience (Gretzel et al., 2015; Koo et al., 2016; Buhalis and Leung, 2018).

A review of the literature and a three-phase explorative, generative and evaluative mixed methods research design brings new knowledge of this form of MTM co-creation to both academics and practitioners at a critical juncture in the development of co-creation theory within the services and marketing management paradigm (Vargo and Lusch, 2004; Prahalad and Ramaswamy, 2004; Rihova et al., 2015; Vargo and Lusch, 2017) as well as pertinent to event experiences (Van Winkle et al., 2016). The paradigmatic shift toward Smart Tourism Destination strategies and the inclusion of events as core attractors within Smart Tourism ecosystems requires a better understanding of the impact of such technology enabled co-creation and interconnectivity (Koo et al., 2016; Buhalis and Leung, 2018).

Understanding the roles and sought outcomes of event goers in smart contexts is critical to leveraging destination competitiveness by using ICTs in creating and enhancing memorable, meaningful and satisfying experience-scapes (Benckendorff & Pearce, 2012; Lamsfus et al., 2015). Having presented the thesis rationale and positioned the research questions of this study, the following section presents the structure of the thesis.

1.5 Structure of the Thesis

This introductory chapter (one) reveals the format of seven subsequent chapters (below):

Chapter 2:

Chapter two presents the emergence of co-creation as a construct in the service marketing and management disciplines and explores the origins, discourse and perspectives around the understanding of service dominant logic. Exploring the roles of co-creation, the tools of co-creation and the stakeholder and network insights related to MTM co-creation (Best et al., 2018), the chapter presents an appraisal of the emerging multi-stakeholder value co-creation perspective and its advance in service marketing as well as in the events context.

Chapter 3:

Chapter three develops the theoretical background of the event experience through granularisation of its key components. The chapter explores critical elements inherent in the core phenomenon, which is that of 'experience' (Getz, 1998; Getz, 2008; Morgan 2008; Berridge, 2014; Geus, 2016). This is achieved by exploring the origins of event experiences and locating critical stages, design, meaning, seminal literature, as well as models and frameworks. Gaps in the literature are highlighted providing warrant for further and deepened exploration through this study.

Theory and perspectives connecting the various elements of event experience in a more holistic conceptualisation include the impact of SD Logic on the evolving event experience (Vargo and Lusch, 2008). Following on from examining co-creation and event experience elements, the literature relating to ICTs in tourism and events contexts is explored. Finally,

the chapter concludes with an assessment of critical research gaps in the exploration of co-creation in the context of event experiences. This is supported by the development of a conceptual framework to begin to explore the emerging smart event experience (Koo et al., 2016; Bustard et al., 2017).

Chapter 4:

The methodological chapter presents the adopted methodological approach of the study. It provides the ontological and epistemological assumptions which are inherent as well as the assumptions of the phenomenological paradigm adopted. It engages with the various stages of this Mixed Methods Phenomenological Research (MMPR) approach underpinned by interpretivist data (Mayoh and Onwuegbuzie, 2013). Phase 1 of the study is focused on an explorative analysis of an event app and is conducted through ICTs utilising a Projective Reflective Analysis, which is methodologically presented (Tussyadiah, 2014). Phase 2 provides a perspective of the core phenomenological process of the study which is carried out through Interpretative Phenomenological Analysis (IPA) of the event app experience, exploring co-creation of the digital phenomenon from a fan/user perspective (Smith et al., 2009). Phase 3 completes the analysis of co-creation in the context of the event app experience and includes semi-structured interviews. The interviews are conducted with ten event stakeholders and thought leaders who assist in unpacking the emerging smart experience (Gretzel et al., 2015a). Additionally, a quantitative survey measures satisfaction, enhanced experience and willingness to pay across two events over two years, providing a comparative opportunity of measuring co-creation impact (Geus et al., 2016)

Chapter 5:

Chapter five is the first of three findings and discussion chapters. This chapter identifies critical components of the digital event experience and applies Uses and Gratifications Theory as a means of assessing the formal and informal digital event experience needs across the contexts of information, integration, identification and entertainment (Dwyer et al.,

2011). This leads to the presentation of the Digital Event Experience Diagnostic and Development Framework (DEEDD) which provides a conceptual framework through which co-creation and co-destruction of event experiences in digital contexts can be better understood in practice (Bustard et al., 2017).

Chapter 6:

Chapter six is focused more specifically on MTM co-creation of the digital event experience and is a generative element of the study which is developed through applying IPA to 5 cohorts of event participants in online focus groups, developed around their event app experiences, and their suggested value-creating event app improvements. The process generated a significant contribution to the emerging smart event experience by presenting a conceptual model of MTM technology enabled co-creation in the context of the digital event experience (Neuhofer and Buhalis, 2013; Luxford and Dickinson, 2015).

Chapter 7:

Chapter seven presents the results of the evaluative phase of the overall research design and assesses the impact of MTM co-creation developed through enabling technology (Geus et al., 2016). It is focused on the digital event experience and presents a holistic engagement framework as a contribution to service marketing and management, incorporating MTM co-creation through technology in the context of events. In concluding this chapter, ten semi-structured interviews with industry professionals and academia about the event experience regarding emerging MTM co-creation and smartness provides an important overview of the mediating role of ICTs in the emerging MTM enabled smart event experience (Bustard et al., 2017).

Chapter 8:

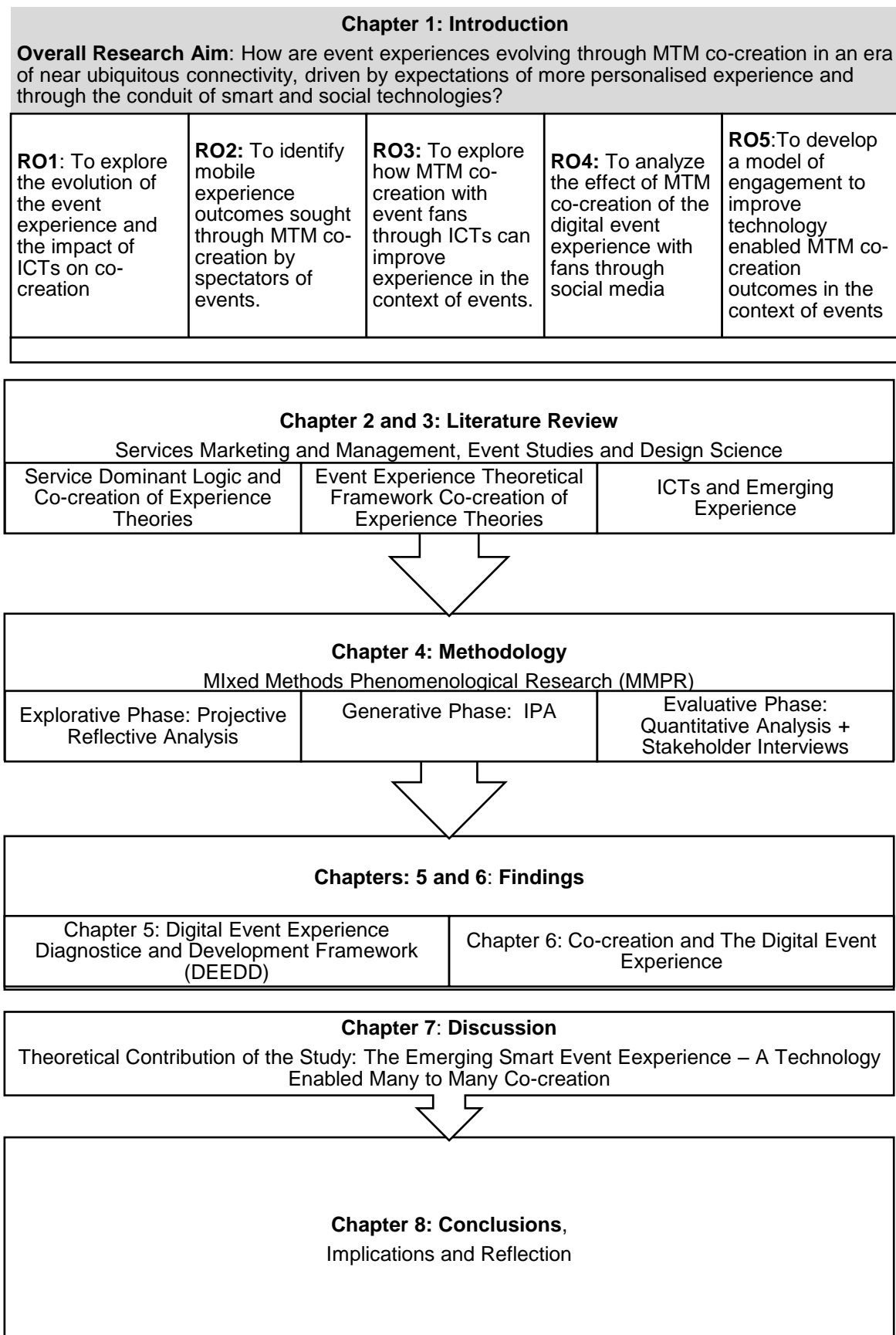
This final chapter provides a summary of the main research findings. There is also the provision of an assessment of recent literature understood in light of the findings of this thesis. The thesis is further examined regarding contribution to theory, contribution to practice, wider implications of the

study and critical perspective of study limitations. A future research agenda is proposed which focuses on the opportunities of significance. Finally, a reflection on the overall process of the development of this thesis contribution is presented, providing insights and reflection on the research process through the researcher's journey.

1.6 Chapter Summary

This chapter has introduced the background and importance of the study of digital event experiences. It has provided the thesis rationale, the evolving event experience, the impact of ICTs on event experiences and thoughts on why it is important to study the impact of ICTs as experience co-creation conduits (Wang et al., 2012; Neuhofer et al., 2016b). The chapter now concludes with Figure 1, providing a structural outline of the overall thesis which summarises the thesis structure based on the overall research aim.

Figure 1-1 Structural Outline of the Thesis (Adapted from Neuhofer, 2014)



Chapter 2 : LITERATURE REVIEW

2.1 Introduction

The introduction highlights the exponential increase of technology-enhanced experiences within leisure and tourism (Neuhofer and Buhalis 2013; Inversini and Williams, 2017). It also presents the challenges of technology acceptance and the sense of 'mediatization' among certain event spectators, in certain event contexts and around particular event types (Horbel et al., 2016). This mediatization has been experienced by a wide and diverse array of event participants (Hepp and Krotz, 2014). Thus, technology's subsequent effects and affects on event-tribe communities, related to the in-event stage of experience, are too critical to ignore (Hutchins, 2016).

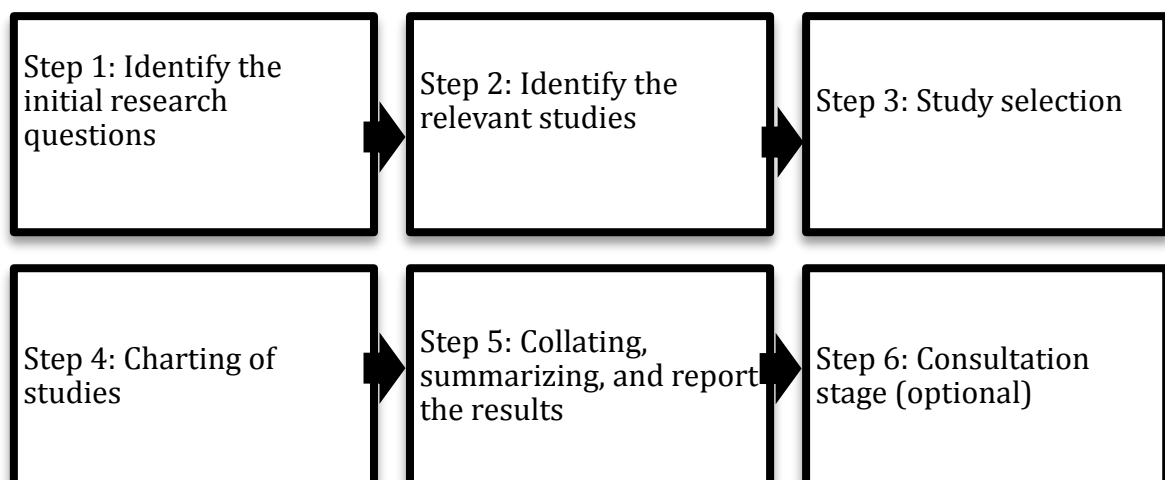
While this tension is unlikely to subside given the adoption and normalisation of technology in our everyday ordinary lives, the spillover effects onto experiences are significant and escalating (Van Winkle et al., 2016). It is clear that elements of the event experience journey are changing because of technology (Gyimóthy and Larson, 2015; Neuhofer et al., 2015b) - but what are the impacts from social and psychological perspectives for the individuals and participant groups? Is technology adding or detracting from event satisfaction? Are these changes a benefit or a hindrance to the event organisers and stakeholders through their obvious marketing and management implications in this service dominant paradigm (Vargo and Lusch, 2008; Rihova et al., 2018)?

Given these overriding and ever-increasing pressures, it is critical to delve further into the literature to gain a better understanding of the evolving digital event experience. This is so that the necessary contextual and theoretical platform is set for the author's digital focus on this as applied to the international event cases situated on the Causeway Coast in Northern Ireland. The literature review will be broken down into two main chapters. (1) Co-creation; and (2) Event Experience and Information and Communication Technologies (ICT).

2.1.1 Process of Literature Review

The scientific method is systematic in its approach and processes. Thus, in reviewing and analytically administering the literature related to the event experience, it is critical to have a suitable and rigorous process (Ridley, 2008). In highlighting the importance of revisiting the research questions, Wellington et al. (2005) emphasise the potential this offers in advancing focus and in determining the specifics and themes of the research topic under review. In keeping with the type of literature of focus and in digitally supporting research process, this study adapts the procedures of Rumrill et al. (2010), who present an approach to systematically retrieving research in the form of a Scoping Literature Review. Rumrill et al. (2010, p.404) posit that such a review is “characterized by the identification of broad themes and patterns in a research area with a high volume of published work, scoping reviews provide important foundations for future study by framing research questions, identifying gaps in the knowledge base, and illuminating the most common approaches that researchers use within a given content domain.” Figure 2.1 presents the critical stages of the scoping literature review study design.

Figure 2-1 Stages in Scoping Literature Review (Adapted from Rumrill et al., 2010)



Focusing on the research question “*how are event experiences evolving in an era driven by ubiquitous connectivity, personalised experience and through smart and social technologies?*”; given that is fashioned as a rather broad overall question, subsequent process focused on clarity around the specific key concepts and how they are related. Three concept areas were identified: (1) co-creation; (2) event experience; and (3) information and communication technologies (ICT). This structure formed the overall framework for inclusion criteria in the study. More detail on this selection process is presented at section

2.1.2 Focus of Literature Review

The event experience is the context to which this study frames its key contribution to service marketing literature. It does so by developing an Innovation Engagement Framework for Digital Event Experiences, conceptualising the Smart Event Experience and by providing methodological innovation in the study of events by utilising Interpretive Phenomenological Analysis (IPA) for the first time as a means of digital event experience enquiry. The event experience has been highlighted as a critical element at the heart of creating satisfying encounters of events and festivals (Rihova et al., 2015; Quinn, 2016; Geus et al., 2016). One of the challenges which this study address’s is to bring forward means by which to analyse event experiences in a digital age which mitigate the challenge highlighted by *Pettersson and Getz, (2009, p.310)*:

“Experiences cannot be fully designed as they are both personal (that is, psychological) constructs that vary with the individual, as well as being social and cultural constructs related to the individual and the (often) social nature of events.”

Adding the voracity for digital experience endemic in culture (Ntamkarelou et al., 2017) and the pace of change affecting events through ICT, people are often experiencing events in the multiple dimensions of digital and physical, with competing influence at the same time (Hutchins, 2016). In dealing with this modern phenomenon, this chapter identifies and brings together key theory and constructs related to co-creation and from this the following chapter focuses on the event experience to deliver and establish a theoretical foundation for the future study of co-creation in the context of the digital event experience.

2.1.3 Overview of Key Literature Streams

The literature review aims to discuss the key literature, within event studies and across interdisciplinary streams of academic enquiry which have been assessed as critical to the analysis of the digital event experience. The focus of this literature review is therefore to develop an understanding of:

- a) Co-creation and experiential impact;
- b) The theoretical framework encompassing the event experience;
- c) ICTs impact and the emerging smart event paradigm.

The event experience is the central phenomenon and context of this study and highlighted by several authors as the core and critical element of Event Studies (Getz, 2008a; Pettersson and Getz, 2009; Morgan, 2008; Berridge, 2012a; Patterson and Getz, 2013; Ziakas and Boukas, 2013). Indeed, in updating sources of satisfaction within this core phenomenon, Getz and Page (2016) highlight the emerging importance of co-creation of the experience and the impact of experience economy conceptions (Pine and Gilmore, 1998) and service-dominant logic on the evolving event experience (Vargo and Lusch, 2004; Rihova et al., 2015). Critical and important to differentiating this study from others in the field Service Marketing and Event Studies is a focus on the impact of ICT on the multiphasic experience journey and across the myriad touchpoints that exist across the event journey in this digital era (Gyimóthy and Larson, 2015; Neuhofer et al., 2016b; Inversini et al., 2016).

A critical starting point is the acknowledgement of the paradigm shift in computing since the arrival of the smartphone and its impacting on the experience of travel (Tussyadiah and Fessenmaier, 2009; Wang et al., 2012), which has been rapid, rampant and revolutionary. With powerful and efficient processors, modern operating systems, broadband internet access, and user-friendly interfaces as well as productivity-enhancing apps, the smartphone offers a wide range of possibilities (Wang et al., 2014a). Indeed, As Bolan (2014, p.200) argues, the elements of event experience created and consumed through mobile technology and their impact on business success ensures that:

“organizations are continually under pressure to get themselves on social media platforms and to consider whether or not they should delve into the world of mobile apps to cater to the ever-growing appetites of those who increasingly use their smartphones to stay connected.”

The first section of this literature review will therefore focus on the historical origins of Service Marketing and its contemporary thought relating to value co-creation with customers, fans, stakeholders and other actors. This evaluation of co-creation theory will conclude with areas of warranted research based on gaps identified through the process and focus of review.

2.2 Co-creation in Service Marketing

This section considers co-creation as a theoretical construct in the perspective of value creation from the Service Marketing perspective (Vargo and Lusch, 2004; Prahalad and Ramaswamy, 2004). The construct is still somewhat ambiguous given the multiple interpretations applied and the nature of theory as it is co-developed (Rihova et al., 2015; Vargo and Lusch, 2017). The section provides a background to the development of co-creation and approaches it through the context of its application or potential application in events. In doing so, focus is placed on the theoretical origins of co-creation within Marketing Management; the emergence of value co-creation as a marketing focus; perspectives of co-creation beyond Marketing; Service Dominant Logic (SD Logic); stakeholders in co-creation; co-creation roles, interests and tools; and trajectories of co-creation in theory and practice.

2.2.1 Co-creation: Theoretical Origins in Marketing Management

The concept of co-creation has emerged powerfully in recent years, driven forward significantly through the Service Dominant Logic perspective (SD Logic), dominant in marketing literature (Vargo and Lusch 2004; 2008). It is an important part of what may well become a paradigmatic shift in modern marketing management and beyond to multiple disciplines through its open source nature (Rihova et al., 2013; Vargo and Lusch, 2016; Pohlmann and Kaartemo, 2017). In positioning co-creation as such, it is important to look at the lineage of prior marketing orientation as it has developed throughout the 19th, 20th and 21st century (Kotler, 2009).

Marketing in the context of western philosophy and society has evolved from a production focused prospective, driven in no small part by the seismic action of the industrial revolution (Palmer, 2005). This 'production era' can be seen as one where the goal of profitability was leveraged more successfully by the manufacture of large quantities of products and in so doing minimising the production costs through scale (Adcock et al., 2001). Focus was predominantly on the product itself as opposed to the preferences, needs or desires of consumers. This disconnect from the consumer perspective attributed too many product failures including production overruns, where demand was not entirely factored or understood and focus solely placed on output and economic benefit through operating at scale (Kotler, 2009).

Marketing continued to develop following the great wars (1914-18 and 1938-45) and a new paradigmatic focus was adopted and can be referred to as the beginning of 'the sales era' (Palmer, 2005). Through a greater focus on selling and through promotion, firms began to become more effective through turning outward and increased competitiveness in the process. Competing on grounds of product quality and driven by advertising and promotion, the sales era fueled much growth economically (Adcock et al., 2001). This more outwardly focused approach began a process which ultimately culminated in a greater degree of focus on competitors and competitiveness but most critically, the customer (Parasraman et al., 1985). Thus, the orientation moved to that of marketing and can be referred to as 'the marketing era' (Baker, 2010). The marketing concept as it was also referred, was more founded on the satisfaction of customer needs and wants through the exchange of goods and services for mutual benefit (Kotler, 2009).

This critical perspective of what came to be known as the marketing mix and its management was focused through a better understanding of the value chain and encouraged research and analysis of consumer experiences and particularly the perceiving of quality (Sheth and Parvitayar et al., 1995). This period was dominated by the American marketing management perspective, which primarily focused on the satisfaction of customer needs (Baker, 2010). The introduction of the premise of value exchange processes underpinned product and service

provision (Kotler, 2009). In differentiating the customer relationship from other epochs, they are seen more as one part of an exchange transaction, which sees each party contributing something of value in return (Vargo and Lusch, 2004). In order to maximise return in this exchange and 'sell value', the marketing function sought to profit on this exchange more by 'locking in' the customer through a focus on delivering the right mix through focus on 'product, price place and promotion' - referred to as the 4 'Ps' by Borden (1964).

The philosophy of the American School of marketing management is still most prevalent in marketing practice but has received more criticism, particularly from services marketing perspectives in Europe (Baker, 2010; Edvardsson et al., 2011). They rightly posit that in seeing the firm as 'producer' of value that is consumed by the customer creates too sharp a distinction and dichotomy in the conceptualisation of the value exchange (Vargo and Lusch, 2008; Edvardsson et al., 2011). The rise of service economies and the influence of information communication technologies (ICTs), has blurred the distinction between producers and consumers even more (Vargo and Lusch, 2004; Ritzer and Jurgensen, 2010). These new conceptions of 'service economies' were born out of societal and economic changes in the post-war period and as such, a natural evolution unfolded culminating with the emergence of 'services marketing' as a distinct subset of marketing and practice (Baker, 2010). The criticality of perceived service quality and its importance in value exchange moved perspectives toward, and understanding of, distinguishing between goods and services. The former being more tangible and durable that consumers can purchase and own in contrast to services, which can be seen as an intangible, variable, perishable, heterogenous and as such, a simultaneous/inseparable offering (Kotler, 2009).

Services are thus produced and consumed simultaneously, with many instances of consumers actively participating in the co-production of the service (Toffler, 1980). Indeed, co-production and value in use have become two of the most prevalent theoretical dimensions of co-creation (Ranjan and Read, 2014; Pohlmann and Kaartemo, 2017). Examples of this reality are more prevalent and more easily understood in manifestations of the leisure experience such as the participation in the consumption experience (Pine and Gilmore, 1998) but also

with more frequency through technology which had begun to accelerate the personalising of customer experience (Vargo and Lusch, 2016). Significant discourse emerges from northern Europe where authors such as Gronroos (2011) and Gummesson (2010) would argue that what would be considered the more traditional marketing view with more separation through a goods dominant perspective, does not account for value being co-produced or co-created through the engagement of producers and consumers in value exchange (Vargo and Lusch, 2004; Gummesson, 2004).

This focus on consumer interactions, relationship building, and loyalty became more prevalent in services research from the 1980's forward (Kotler, 2009). The next significant insights garnered through the marketing literature relate to the increasing role of customers as both consumers and producers. This form of consumption, where customers engage in utilising their own skills and knowledge in both production and consumption have been referred to as 'prosumers' (Kotler, 1986). This reasoning soon seeded way to the concept of 'customer co-creation' (Prahalad and Ramaswamy, 2004) which will be developed significantly in coming sections. The following table highlights key periodic incidents in the development of the service marketing and management discipline to date.

Table 2-1 Historical Development of Service Marketing and Management (adapted from Neuhofer, 2014)

<u>Period</u>	<u>Timeline</u>	<u>Marketing Perspective</u>	<u>Underpinning Assumptions</u>
Product Economy	1800-1920	Classical and Neoclassical Economics	Production focus; Tangible/standardised Value embedded in goods Value is added/value exchange
Product Economy	1900-1950	Early Formative Marketing	Production focus; Early marketing thought Marketing purpose to bridge supply/demand gap Marketing to sell products and add value Transactional focus
Transitional: Product	1950-1980	Marketing Management	Product dominant views;

Economy Service Economy			Consumer behaviour recognised in marketing Marketing focus on fulfilling consumer needs/wants; Creation of quality, loyalty and satisfaction Differentiation for competitive advantage
Service Economy	1980- 2000	Marketing as Social/Economic Process	Service oriented focus and service provision; Service orientation, relationship marketing, value, networks and resources Marketing role as economic and social process Value propositions and value in use.
Experience Economy	1998- 2004	Experiential Marketing	Experience dominant viewpoint; Consumers procure services to get experiences Progression of economic value Creation of memorable experiences
Experience Co-creation	2004- present	Services Marketing / SD Logic; Co- creation	Experience dominance; Market is a network of co- creation Consumer is co-creator of value and experience Two-way participation - company and consumer

2.2.2 The Emergence of Value Co-creation

Introduced by Prahalad and Ramaswamy (2004) and taken to wider prominence by Vargo and Lusch (2004), co-creation as a distinctive focus of marketing experience would come to be referred by many supporting authors as taking place within the Service Dominant Logic paradigm (SD Logic). Further perspective of SD Logic will follow and emerges in no small part due to the explosion in the use of ICTs as a seed bed of co-creation in online service

domains (Akaka and Vargo, 2014). Consider the rise of social networking sites and the message boards, blogs, wikis, social media and apps, which proliferate the online environment and pervade the contexts of our lived experiences (Hudson and Hudson, 2013; Rihova, 2013). These are providing much greater scope for more immersive and connected experiences with other actors beyond a physical setting through which there is potential to create value (van Limburg, 2009; Bolan, 2014). These tools for co-creation will be analysed further in due course. Suffice to clarify the importance of such tools in the evolution of marketing services. Gummesson (2010, p. 399) suggests, through goods, services and other products including software, information and knowledge, that “it has now come to a point where goods and services merge and the recognition of the interdependency between the two is a more productive vantage point.” It is based on this salient point that focus is now turned toward the current ‘service marketing era’ (Vargo and Lusch, 2004).

In positioning SD Logic as a paradigmatic shift in perspective of ‘the market’, Vargo and Lusch (2004, p.1) argue that:

“over the past several decades, new perspectives have emerged that have a revised logic focused on intangible resources, the co-creation of value, and relationships. The authors believe that the new perspectives are converging to form a new dominant logic for marketing, one in which service provision rather than goods is fundamental to economic exchange.”

This evolving logic was argued to correspond to shifts in overall perspective by many marketing scholars, practitioners and educators (Vargo and Lusch, 2008). In positioning SD Logic, Vargo and Lusch (2004) presented nine foundational principles (FPs’) and later added a tenth principle (Vargo and Lusch, 2008b), re-working some of the language of these principles to support, where possible, a more ‘service system’ focused lexicon. Below in Table 2.2 is a list of the foundational principles adapted from Vargo and Lusch’s latest presentation of the FPs’ with those elements in bold to highlight updated perspective and lexicon.

Table 2-2 SD Logic Foundational Principles Adapted from Vargo and Lusch (2008b)

FPs	Original foundational premise	Modified/new foundational premise	Comment/explanation
FP1	The application of specialized skill(s) and knowledge is the fundamental unit of exchange	Service is the fundamental basis of exchange	The application of operant resources (knowledge and skills), "service," as defined in S-D logic, is the basis for all exchange. Service is exchanged for service
FP2	Indirect exchange masks the fundamental unit of exchange	Indirect exchange masks the fundamental basis of exchange	Because service is provided through complex combinations of goods, money, and institutions, the service basis of exchange is not always apparent
FP3	Goods are a distribution mechanism for service provision	Goods are a distribution mechanism for service provision	Goods (both durable and non-durable) derive their value through use – the service they provide
FP4	Knowledge is the fundamental source of competitive advantage	Operant resources are the fundamental source of competitive advantage	The comparative ability to cause desired change drives competition
FP5	All economies are services economies	All economies are service economies	Service (singular) is only now becoming more apparent with increased specialization and outsourcing
FP6	The customer is always a co-producer	The customer is always a co-creator of value	Implies value creation is interactional
FP7	The enterprise can only make value propositions	The enterprise cannot deliver value, but only offer value propositions	Enterprises can offer their applied resources for value creation and collaboratively (interactively) create value following acceptance of value propositions, but can not create and/or deliver value independently
FP8	A service-centered view is customer oriented and relational	A service-centered view is inherently customer oriented and relational	A service-centered view is inherently customer oriented and relational
FP9	Organizations exist to integrate and transform microspecialized competences into complex services that are demanded in the marketplace	All social and economic actors are resource integrators	Implies the context of value creation is networks of networks (resource integrators)
FP10		Value is always uniquely and phenomenologically determined by the beneficiary	Value is idiosyncratic, experiential, contextual, and meaning laden

Words in bold type represent changes in wording from the original FPs (Vargo and Lusch 2004a, 2006).

To critically appraise this perspective of service, Vargo and Lusch (2008) argued for a need to distinguish between 'service' and 'services' as distinct to the predominance of goods and services proposed in earlier marketing management literature. Vargo and Lusch (2008, p.4) define 'service' as being the "application of competences for the benefit of another party." This distinction leads to their positing that all providers should be considered as 'service providers' within marketing perspectives as a mark of viewing transactions more from the perspective of doing something for someone or some group, be they businesses, customers or wider society. These perspectives have been more adopted from the 1990's forward and the services marketing era, where the conceptualisation of providers and customers as separate began to blur (Gummesson, 2010). Services marketing as a term, has come to represent a catch all perspective for what were traditionally, product and service subsets within the marketing discipline (Kotler, 2009). All stakeholders in the marketplace such as both internal and external including employees, communities, suppliers, customers and wider society are integrated into networks of potential co-creation (Vargo and Lusch, 2008b; 2017). The co-creation of value is a critical concept of focus in services marketing and service research and the stakeholders who offer value within this concept must be further understood (Frow et al., 2014).

2.2.3 Co-creation - Perspectives Beyond Marketing

Co-creation is not delimited solely to marketing literature and has impacted across a wide range of areas (Agrawal and Rahman, 2015). Indeed, Pohlmann and Kaatemo (2017, p.53) note that "while expansion is a testament to the integrative qualities of SD Logic, it's interdisciplinary dispersion muddles the paradigm's boundaries - even more so amidst ongoing debates situated across a breadth of disciplines." In terms of this dispersion, authors have presented perspectives of value co-creation from the management perspective (Prahalad and Ramaswamy, 2004; Nambisan and Baron, 2009), as well as the marketing perspective (Payne et al., 2008; Gronroos, 2011), the Service and SD Logic perspective (Vargo and Lusch, 2004, 2017; Edvardsson et al., 2011), from a Design logic viewpoint (Nenonen and Storbaka, 2010; Kohler et al., 2011) and

also from an Innovation and NPD standpoint (Nambisan, 2009; O'Hern and Rindfleisch, 2010).

Galvagno and Dalli (2014, p.659), in their systematic literature review of co-creation theory present two main clusters of focus, which are products vs service perspectives and company vs customer perspectives. They further posit these across three themes of knowledge which they present as 'service science' (grounded in SD Logic); innovation and technology management, which considers products services and experience and marketing; and consumer research which focuses on "the role of subjective and customer lived experiences" in value co-creation. The continuing growth across domains in the development of co-creation perspectives has led to a complexity in terms of definitions of co-creation but there is a commonality in the perspective of customer centricity and value being the root focus (Agrawal and Rahman, 2015). Ranjan and Read (2014) provide a significantly developed perspective of the literature relating to co-creation and highlight two main dimensions which are related as co-production and value in use. Their study is useful and will be explored further subsequently as it highlights critical motives of participation in co-creation and sub dimensions of the higher order constructs such as equity, knowledge and interaction for co-production and experience, as well as personalisation and relationship for value in use.

Value is defined by Haksever, Chaganti and Cook, (2004, p.292) as the "capacity of goods, services or activity to satisfy a need or provide a benefit to a person or legal entity." This is a useful definition given that it incorporates the potential of actors beyond the customer at a time when 'legal entities' can include anything from an organisation more holistically to an artificial intelligence agent such that may form part of a personal 'service' ecosystem surrounding a client (Vargo and Lusch, 2017).

The propensity of value to be co-created with and through stakeholders as well as value in use is an important understanding to reach from the perspective of facilitating the fruitful resource integration of customers and all other actors in pursuit of value (Agrawal and Rahman, 2015). The nature of value co-creation has been explored by many authors and has been premised on interaction,

creative and social processes between stakeholders and through collaborative activity (Gronroos and Voima, 2013; Roser et al., 2013). Ind and Coates (2013, p.92) position value co-creation as:

“a process that provides the opportunity for on-going interaction, where the organisation is willing to share its world with external stakeholders and can generate in return insight that can be derived from their engagement.”

This more open view of stakeholders is a perspective which supports the supposition that ‘service’ as termed by Vargo and Lusch extends far beyond the dyadic relationship of customer and organisation and has far reaching implications for the development of value propositions to support more connected, integrated and engaged consumers and their networks and ecosystems as exist today (Vargo and Lusch; 2004; 2008b; 2016; 2017).

2.2.4 The Evolution of SD Logic and the Co-creation of Value

SD Logic has been evolving within the marketing discipline in recent decades and has been adopted widely but not without its detractors. It has been suggested that it is merely “an old twist on a new plot” where it is not offering newness in terms of customer insights in relation to collaborative co-creation (Brown, 2007). These perspectives will be acknowledged further in the next section following focus on the framing of SD Logic applied by Vargo and Lusch (2004; 2008). In their perspective, they see the theory as co-creating itself and thus ‘adapting in’ many established elements of marketing theory and conceptual understanding (Vargo and Lusch, 2006). Indeed Brown (2007) acknowledges this reality in his authorship but has difficulty with how Vargo and Lusch adopt the lexicon of an often goods dominant perspective into the new framing of SD Logic arguing that this confuses and alienates academics and practitioners alike and makes the constructs challenging to distil.

With significant impact, SD Logic has helped to re-orient debate in academia away from its historic focus on goods or services as the sole output of marketing activity. SD Logic provides and incorporates the opportunity of value co-creation between customers and businesses known also as B2C value co-creation (Vargo and Lusch, 2004; Payne et al., 2008). B2C’s success relies on the firm creating a suitable ‘value proposition’ which is offered in the exchange but fundamentally

this value can only be realised by customers in the consumption or usage phase. As such it is a subjectively natured value being realised. This process of co-creation between customers and providers leads to the emergence of value tacitly through interaction (Gronroos and Voima, 2013). This perspective is service-oriented and SD Logic proposes that firms realise a more subjective measure of value through their customer interactions as opposed to the historic reliance on purely economic measures such as sales for the health of the B2C relationship (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004; 2017). This is certainly a fundamental shifting of perspective in marketing thought, suggesting a stronger focus away from the primary positioning of material value and envisioning a more collaborative and relationship-based view as the premise of competitive advantage in the future (Vargo and Lusch, 2016). As Ranjan and Read (2014) highlight, the literature has shown important prominence for value in use being understood through experience, relationship or by means of personalisation.

In addressing this active role of customers as orienting to value co-creation through this more resource-based view and seeing these customers as critical resource integrators in co-creating value, continues to propel SD Logic ever forward in its application to research and development (Edvardsson et al., 2011). These roles are examined further in a later section but for now, what this means, is that customers are continuing to be recognised and integrated into the marketing process leveraging their capabilities, skills and knowledge as they introduce their 'operant resources'. Supporting this co-creation, customers are encouraged to leverage these operant resources, often in conjunction with more tangible/material elements (operand resources). Beyond the B2C perspective, SD Logic emerges as a means to focus on value co-creation across what Vargo and Lusch (2017) term as a 'dynamic service ecosystem' where marketing is about creating value through exchange and not a simple firm technique. According to the authors, SD Logic is "one of the most cited literature streams in business" and thus cannot be underestimated as a viable general marketing theory. This is possibly the most useful perspective of SD Logic: where it is facilitating foresight in relation to macro-marketing challenges such as those exacerbated by the challenges of managing big data, privacy and trust and

underpinned by ethics, as well as social equity issues and environmental sustainability challenges (Pohlmann and Kaatermo, 2017).

2.2.5 Challenges to the Paradigm of Service Dominant Logic

Service Dominant Logic (SD Logic) is not without its detractors both from within the academy and also in practice contexts (Schembri, 2006, Brown, 2009). For example, the impact of copyright and intellectual property on the propensity to co-create has been levelled as a major stumbling block to SD Logic's future development (Brown, 2009). The very act of co-creation can be seen as problematic if the focus is placed on brands which yield much of their economic benefit from protectionism or through practices of creating scarcity and driving up desire (Brown, 2009). In his eloquent paper focused on the Harry Potter phenomenon as an example, and by focusing the brand through what he terms "the SDL sausage machine" Brown, (2009, p.529) argues against SDL as incompatible with marketing theory and a step backwards due to its inherent flaws in terms of language and understanding. The transition, he says, is "unlikely to be smooth or untroubled" (Brown, 2009, p.529). It is a perspective shared by authors such as Schembri (2006, p.390) who posit the theory to be "inadequate and incomplete."

Not all brands are as protectionist and as legally bound as those which are often used as the focus by the protagonists oft disparaging SD Logic. Indeed, many brands have healthy relationships of co-creation through their brand tribes, particularly those supported through ICTs which are at the heart of much of what the emerging service science perspectives seek to adopt (Akaka and Vargo, 2014). These network and ecosystem perspectives are understandably more challenging to envision when viewed through the lens of a more 'material culture' such as that posited by Miller (2008), as they do not sit as simply within the framing of the goods versus services marketing mindset. The reality is that although marketing was born of the economic womb and, indeed, is still governed by financial exchange as a major measure of value exchange, the emerging interconnected and interoperating 'nature' of ICTs are a source of value that is realisable and not as contested as more tangible service exchange elements (Buhalis and Ammaranngana, 2013). Brown (2009) is right in arguing for caution

in how the application of SD Logic develops from its current form as there are significant challenges ahead in unifying theory and in particular SD Logic's lexicon (Vargo and Lusch, 2017). Suggesting as Brown (2009, p.530) has, that "SDL is turning us into the seriously deluded loners of scholarship" or dismissing the theory as a regressive step as O'Shaughnessy & O'Shaughnessy (2009) did in their discourse with Vargo and Lusch (2011) has not assisted in the development of SD Logic (Olexova, and Kubickova, 2014). Although understandably frustrating when assessing a potential seismic shift in how the market is defined, and how its value can be managed, it is a necessary progression (Pohlmann and Kaatermo, 2017) in thought to assure sustainability and a flourishing society beyond 'goods dominant lusting' (Brown, 2009, p.529). There is evidence to suggest that this shift is impacting millennials in particular, who seek experience as opposed to ownership and who are happier to possess a more digital tangibility than a physical manifestation of wealth and success (Camilleri and Neuhofer, 2017). Undoubtedly, the debate will continue around SD Logic but it is clear through its adoption across a myriad of multidisciplinary literature beyond its humble beginnings in service marketing that it is here to stay, evolve and grow as a means of exploring value-co-creation.

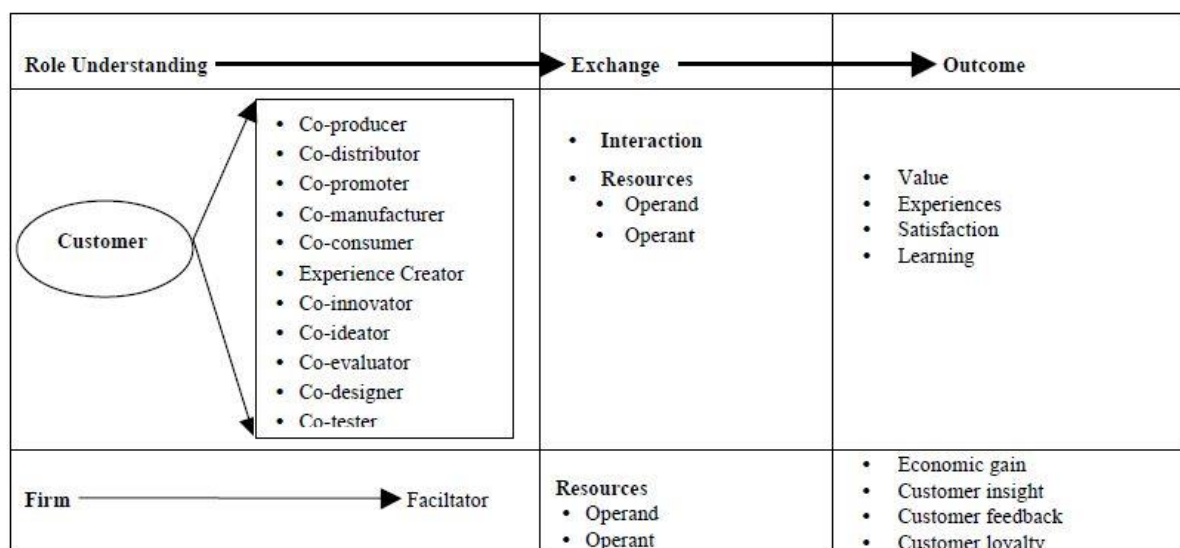
2.2.6 Co-creation Roles, Interests and Tools

Co-creation is often understood in terms of the various benefits to participants through the creation of value as experience, through personalisation or in context of relationship, as well as in terms of what delivers this value such as knowledge, interaction and equity (Vargo and Lusch, 2004; Ranjan and Read, 2014). As "value is always uniquely and phenomenologically determined by the beneficiary" (Vargo and Lusch, 2008, p.7), understanding the roles which are played by customers is important for future theory development, where actor networks are continuously developing (Vargo and Lusch, 2017). This is a strategic area of focus beyond the critical and central understanding of the customer as co-creator of value and is dependent on gaining deeper insights of the role(s) adopted within the co-creation process, dependent on phase, context, interests or focus (Agrawal and Rahman, 2015). Historically, literature has viewed customer participation through the lens of co-producer of value and as such has, in the past aligned customers as a human resource (Bowen, 1986), personal resource (Mills

and Morris, 1986), employee (Dong et al., 2008) as well as productivity enhancer (Lengnick-Hall, 1996).

Lengnick-Hall (1996) identified four key roles in customer engagement which are those of resource or of worker (co-producer), of buyer and of beneficiary (user). In viewing the operant and operand value contributing potential of each customer as a 'reservoir' of untapped potential (Agrawal and Rahman, 2015), the perspective offers unique insight to view each further in terms of resources integration as being of social, personal and cultural nature in terms of differentiation (Arnould et al., 2006). Technology has provided an explosion in relation to opportunities to integrate customers as resources in the creation of value, where tools such as the internet have given rise to social and collaborative platforms and collaborative practice (Hoksbergen and Insch, 2016). The web provides the opportunity for performative co-creation, where multiple roles can be adopted and has seen the balance of bargaining power pivot somewhat to now residing more in favour of the customer (Zwass, 2010). With focus on the customer as central to the co-creation process, Agrawal and Rahman (2015) provide a useful figure (see 2.2 below) relating the roles which they identified through literature review and which impact on the practice of co-creation with customers.

Figure 2-2 Value Creation Role, Exchange and Outcome (Agrawal and Rahman, 2015, p.147)



The role of co-producer has been a fundamental role perspective as was outlined earlier and it is held by Vargo and Lusch (2004) through the foundational principle FP9 that all resource integrators act as co-producers of value at some point on the customer/firm journey. It is also recognised by Agrawal and Rahman (2015) that the other roles identified such as co-distributor, co-promoter, co-experience creator are all interactions within the co-production of value which are enacted by social and economic actors within the process.

The role of co-distributor is something where the perspective of non-linearity of service and the concept of network assures both customers and firm as resource integrations who constantly interact, connect, share and learn from each other (Gummesson, 2004). Consideration of the potential of customers as nodes in this network of value creation and sharing assures complementarity with the future development of SD Logic going forward (Vargo and Lusch, 2017). In defining co-promotion as a critical co-creation role, it is important to consider consumer evangelists by differentiation to the powerful paid customer influencers gaining dominance in social media marketing practice (Hudson and Hudson, 2013). More focus on measures to engage customers, develop relationships and enable co-promotion is advised as a measure to prevent negative word of mouth and is now a more common focus (Zwass, 2010).

Co-manufacture as a role has opened up significantly due to the ability to embed customer micro competencies, knowledge and skills into value creation such as through the web by blogs, videos, and other content or knowledge driven by consumers (Vargo and Lusch, 2017). This enabling of knowledge-sharing and learning can be further integrated through co-creation practice and offers significant personalisation potential (Minkiewicz et al., 2014). The challenge is in maintaining quality and engaging appropriate supply techniques. Co-consumption as a co-production process offers potential to create meaning, value and intersubjectivity of experience enhancement through the stages of consumption pre, during use and post use (Etgar, 2008). This is an important consideration given the multi-phasic nature of events (Berridge, 2014). Through the lens of SD Logic, each phase offers significant value creation potential and experience enhancement opportunity.

Customers as experience creator respects the perspective of consumers being increasingly connected, informed, empowered and pro-active in their value seeking and creation (Prahalad and Ramaswamy, 2004). As customer experiences are phenomenological in nature within the SD Logic perspective, the significance of two particular types of value acclaimed by Vargo and Lusch (2004) are key, these being value in exchange and value in use as mentioned previously. Firms collaborating with customers in generating richer consumption experiences can capitalise on enabling preferences to be met and extending value in use (Gronroos, 2008). Customer innovation as a role is one which is recognising the increase afforded through a more networked society by tapping into the collective intelligence and open source mindset which consumers participate in and in so doing, gain value from this interaction (Bogers et al., 2010). Co-ideation is also part of this exciting integration of customer as value co-creator and supports being the agency present within the network and leveraging this through more open organisational boundaries (Sanchez-Gonzalez and Herrera, 2013). The role of technology, particularly given the impact of social networks, has created a bridge between customers and firms such that co-ideation can be found to exist even where firms are not tacitly supporting such co-creation (Russo-Spena and Mele, 2012).

Co-production with customers also seeds the role of co-evaluator, where the fruits of co-ideation can be understood and unpacked by a wider group of co-creating customers. Consider value propositions created and then shared with customers for online evaluation through likes and other contests of primacy through social media (Russo-Spena and Mele, 2012). Co-evaluation is a form of co-creation requiring significant care due to the propensity of many to encourage negative interaction via social platforms. Co-design as a role is an opportunity where knowledge and learning can integrate, especially through facilitative platforms, allowing for collaboration. As a co-creation activity, it is often a smaller contribution due to the complexity of engagement and management needs but has been shown to bare significant potential and has been adopted by brands like Nike and Lego as examples (Piller and Walcher, 2006). Co-testing as a role is another interaction which leverages knowledge and equity and can provides kudos to participants as well as creating uniqueness in terms of the value propositions being created. This is due to the feedback loop

extension and the potential to increase the success of products which have engaged consumers prior to full market launch (Kaushik and Rahman, 2014).

2.2.7 Practice as Process of Co-creation Facilitated by Tools

As has been highlighted throughout this section, the process of co-creating value with customers requires better understanding of the roles as well as the tools of co-creation. It has been long known that a need exists for 'creating tools for co-creation' (Schrage, 1995; Payne et al., 2008). In their assessment, Payne et al (2008) highlight three main components to support value co-creation, these being customer value-creating processes; supplier value-creating processes; and encounter processes. Through these pillars it is evident that the tools facilitating the process are existent in the encounters. The processes of co-creating value include 'practices' as defined by Korkman (2006) which are suggested as "a set of routinized actions which consist of tools, know-how, images, physical space, and an active player who is willing to carry out and carry on the practice" (Payne et al., 2008, p.87). To better understand this, consider calls, meetings, emails, and discussions relating to a service encounter and establish the variety of physical and digital parameters necessary to facilitate (Payne et al., 2008). In assessing the delivery of value co-creation around Expo2015 in their paper, Pera et al (2016, p.4039) highlight regular meetings and workshops as facilitation tools but also explicit tools such as "WhatsApp, SMS, and a friendly attitude" as being crucial to the success of co-creating with a wider stakeholder network.

The success of such a practice-based approach is centered on adoption of appropriate motives toward the processes of co-creation (experimental and relational) and based on some shared values such as trust, inclusivity and openness. The ability to integrate resources successfully through encounters (operant and operand) is also critical and based on individual actor creativity, flexibility and negotiation ability (Runco and Jaeger, 2012). In conjunction with these 'softer' but more impactful practices, there are ICTs which may be more commonly referred to as tools of co-creation in more modern contexts (Rihova et al., 2013). In addition, it is important to consider elements of the Internet of Things (IoT) such as context aware systems, mobile technology, social media, social networks, smartphone applications, augmented reality, recommender

systems and big data analytics (Wang et al., 2014). Collectively these tools and practices drive much co-creation potential and are becoming ever more embedded in the co-creation of experience value in this more networked age engaging multiple stakeholders across enabled ecosystems (Gretzel et al., 2015c). These will be further unpacked in relation to ICTs impacting the event experience in the following literature review chapter.

2.2.8 Co-creation and the Multi-Stakeholder Perspective

Perspectives on the engagement of multiple stakeholders in the co-creation of value has received little attention through the SD Logic lens until more recently (Frow and Payne, 2011). According to Frow et al. (2014), 'stakeholder' and 'stakeholder relationships' are alternative ways to convey 'actor' and 'actor to actor' relationships and reflect the individual and the more dynamic nature of the 'ecosystem' (Vargo and Akaka, 2012). The significance of this perspective of acknowledging these 'actor to actor networks' anew has been further developed by authors such as Vargo and Lusch (2008b) who present the value configurations of actors exchanging and interacting across networks and often through social platforms (Grönroos and Voima, 2012). In doing so, they underpin this emergent view of multi-stakeholders as a system of value creation from the SD Logic perspective within the marketing system (Gummesson, 2008). The co-creation paradigm is posited as a recognition of both existing and potential consumers in a process that includes actions by consumers and suppliers in a reciprocal knowledge exchange (Frow and Payne, 2011). These processes are defined by Payne et al (2008) as including the tasks, procedures, interactions and activities which support value co-creation.

Stakeholder theory's origins are firmly in the management literature (Freeman, 1984) and have provided significant impact in terms of broadening the focus to individuals/groups critical to the success of organisations or enterprises. Despite the extent to which stakeholder theory has increased in volume, there is still little agreement about what constituent groups which should be considered as stakeholders (Pera et al., 2016). Indeed, there is evident discourse in relation to the precise meaning of both 'stakeholder' and 'theory' within current management literature but from a generalist perspective it can be taken as relating to those

playing a crucial role in issues of management, business, ethics and society (Jones et al., 2017).

The reality of organisations is that they are embedded within dynamic and diverse networks of stakeholders, with an obvious focus on consumers but not limited as such (Pera et al., 2016). This movement away from the dyadic, direct customer/firm relationship of exchange conceptualisation (Vargo and Lusch, 2004) has been embedded within the SD Logic perspective of co-creation as taking place between “economic and social actors within networks interacting and exchanging across and through networks” (Vargo and Lusch, 2008, p.5). Authors such as Hillebrand et al. (2015) have eluded to the lack of academic discourse focused on the importance of stakeholder integration as a perspective of co-creation and have argued that the discussion remains underdeveloped (Pera et al., 2016). A focal shift in the SD lens from the view of the one (consumer) to the view of the many (stakeholders as actors), has gained important impetus, not least from the perspective of creating stronger value propositions through their dynamic aspects (Frow and Payne, 2011; Rihova et al., 2013; Vargo and Lusch, 2017).

There have been a variety of terms used to describe stakeholder systems from an SD Logic perspective. Some notable examples include value constellations (Norman and Ramirez, 1993), networks (e.g. Gummesson, 1999) and service ecosystem (Vargo, 2009). In arguing for a more holistic appreciation of all actors involved, Pera et al. (2016, p.4034) posit the necessity for SD Logic to expand to include “suppliers, employees and society at large” and it is this perspective that is adopted in advocating an ecosystem outlook. This much wider standpoint advocates inclusion of the socio-cultural system as a whole beyond pure dyadic conceptualisations of value co-creation. Ecosystem is usually a term denoting an interactive and dynamic system within the biosphere consisting of physical components and biological components (Pera et al., 2016). Gyrd-Jones and Kornum (2013, p.1484) define this broadened perspective as a “stakeholder ecosystem, which encapsulates both the network nature of these relationships and the complex set of subcultures that make up this ecosystem.” This adaptation from the natural sciences is an invaluable one in describing the interdependence of actors and highlights the propensity to adaptation inherent as

well as the evolutionary process at play (Frow et al., 2014). This interdependence is something which applies in particular to the temporal ecosystems which surround events and although stakeholders may not always have the same priorities and objectives in terms of their participation and values which differ, the necessity for stakeholders to work together to co-create value is a necessity due to the nature that no single actor has the resources necessary to do so individually (Vargo and Lusch, 2011).

2.2.9 The Emergence of the Many to Many Co-creation Perspective

The emergence of the concept of many to many (MTM) co-creation is a stakeholder perspective of value co-creation (Vargo and Lusch 2004; Gummesson, 2006) which resonates with complex projects such as events (Rihova et al., 2015). In these instances, collaborative MTM relationships require engaged actors to participate in collective action toward common goals, through the adoption of a more holistic perspective and willingness to share value co-creation (VCC) practice (Best et al., 2018). MTM as a focus of value co-creation moves beyond the dyadic conception of co-creation earlier posited in the literature (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004) and focuses on the polymorphic through multi-actor participation (Galvagno and Dalli, 2014; Ranjan and Read, 2016; Best et al, 2018).

MTM relationships are predicated on the actors involved participating more collectively with commonalities in goals and objectives and a willingness at times to adopt a more holistic view of value co-creation (Mills et al., 2013). In these instances, value co-creation is understood by adopting a network perspective, with complicated service exchange of both direct and indirect activity across multiple actors (Best et al., 2018). The adjustment must be made to recognise the setting in a wider, complex, dynamic and adaptive way as opposed to the more traditional viewing of service exchange in a more dyadic sense (Frow et al., 2015). It is also critical to note that in the MTM setting, value co-creation can be driven by a varying number of actors with varying roles of exchange also (Meynhardt et al., 2016). These roles can and often do, change over time as their level of engagement varies and their willingness to engage also (Chandler and Lusch, 2015). Frow et al. (2015) highlight three forms of this engagement as

a) one off interactions; b) recurring interactions c) and continuous interactions. What is therefore critical in adopting the MTM perspective is a conception of value being embedded “in interactive relational processes for co-creating experiences” (Sfandla and Björk, 2013).

Beyond the forms of interaction outlined underpinning value co-creation in the MTM context, there are several key factors which support the differentiation of this context of co-creation (Best et al., 2018). Critical to this perspective is a knowledge of the operating environment as one which is complex, wider in nature, more dynamic and with an inherent adaptiveness beyond the dyadic relations of customer/firm (Meynhardt et al., 2016). Within this more complex environment there is also a recognition of the range of roles of actors (Agrawal and Rahmann, 2015) and how their exchange differs through both shared and individual focus as well as the potential to hold multiple roles which often evolve over time (Meynhardt et al., 2016). Finally, the complex and dynamic nature of the setting of MTM requires an understanding of value co-creation to be understood collectively and beyond solely individual motives (Meynhardt et al., 2016). Thus, MTM offers significant impact in terms of value co-creation across a network of connected stakeholders but is very much reliant on developing shared and somewhat integrated processes, and having focus on similar outcomes, which need to be understood and managed in order to facilitate co-creation across the network (Reypens et al., 2016).

In their recent paper Best et al. (2018, p.1555) highlight “evidence of changing VCC dimensions, which may appear to be contingent on variables including type of service activity, type and number of stakeholders, actor expectations and type and availability of resources.” There are also issues of resource complementarity and resource nature which will offer an interesting line of enquiry in exploring the digital event experience through the MTM perspective. Building on this emerging area of insight relating to networked multi actor/multi-stakeholder co-creation, and with an emphasis on events, this thesis focuses on value co-creation in an MTM context by concurring with Best et al. (2018) and others (Chandler and Lusch; Weber et al., 2017), who argue that the literature related to MTM co-creation is under-developed and further conceptualisation is required in varying contexts. This is further revisited in the following chapter where literature gaps

pertinent to this study are related. Focus is now placed on the stakeholders of co-creation in the event context.

2.2.10 Co-creation and Stakeholders in Event Contexts

Van Limburg (2008) was one of the earliest adopters of the co-creation perspective within Event Studies literature. In an article relating to pop festivals, co-creation was posited as a tool with potential to manifest competitive advantage adopted as a new management perspective. The adoption of co-creation is positioned as a better means to gain deeper knowledge of the event, festival and customer experience (Holst-Kjaer, 2011). Promoted as an under-explored approach, van Limburg (2008) presents co-creation as customer and producer interaction through the network of stakeholders thus hinting beyond the dyadic. In his article, van Limburg (2008) presents value creation as a joint practice involving both consumer and producer cooperating to develop the festival product or service from the bottom up. Subsequent studies have further explored co-creation between differing stakeholder groups in the events context (Hoksbergen and Insch, 2016) and developed perspectives of how this impacts in terms of value, meaning, practice and identity (Prebensen, 2010; Rihova, 2013).

Rihova's research on events co-creation focused on what she terms socially dense settings and offers much insight into the emerging practice base of value co-creation in such contexts (Rihova, 2013; 2015). She highlights three main discourses in relation to marketing literature pertinent to co-creation including those of features and benefits, 'value-in' discourse and finally, intersubjectivity discourse, which were related in the introduction. A critical offering from Rihova's work is centred on customer resource integration, particularly in terms of customer to customer (C2C) as well as social practices as alternative approaches in studying co-creation. Her work does highlight the necessity for further study to focus on social practices based on technological implications, although presents a case for caution in relation to technology adoption for in-event co-creation due to liminality challenges. When assessing resource integration in the event context it is important to elucidate the multiple stakeholders at play (Todd et al.,

2017) as well as the means through which these stakeholders integrate (Best et al., 2018).

Several authors have explored value co-creation and perspectives of the use of social networking sites, media sharing sites, blogs and wikis as sources of customer generated knowledge, innovation and distribution in events contexts (Chua et al., 2010; van Limburg, 2009; Hudson and Hudson, 2013; Hoksbergen and Insch, 2016). Tapping into these communities and maintaining and developing community cohesion and sensibility has proven effective as a relationship marketing strategy (Gummesson, 2006; Kozinets, 2010). Beyond B2C and C2C perspectives, there is obvious opportunity to look beyond the traditional and dyadic viewpoints and beyond stakeholders or multi-stakeholder also toward customer to actor (C2A) perspectives which can be both dyadic and polychromic in nature and due to the proliferation of ICTs, sensors and increased connectivity, are offering more experience co-creation potential through the IoT (Tussyadiah, 2018). To add some further perspective to this emerging reality of C2A in M2M co-creation contexts, the next section evaluates the trajectories of co-creation research and application more generally.

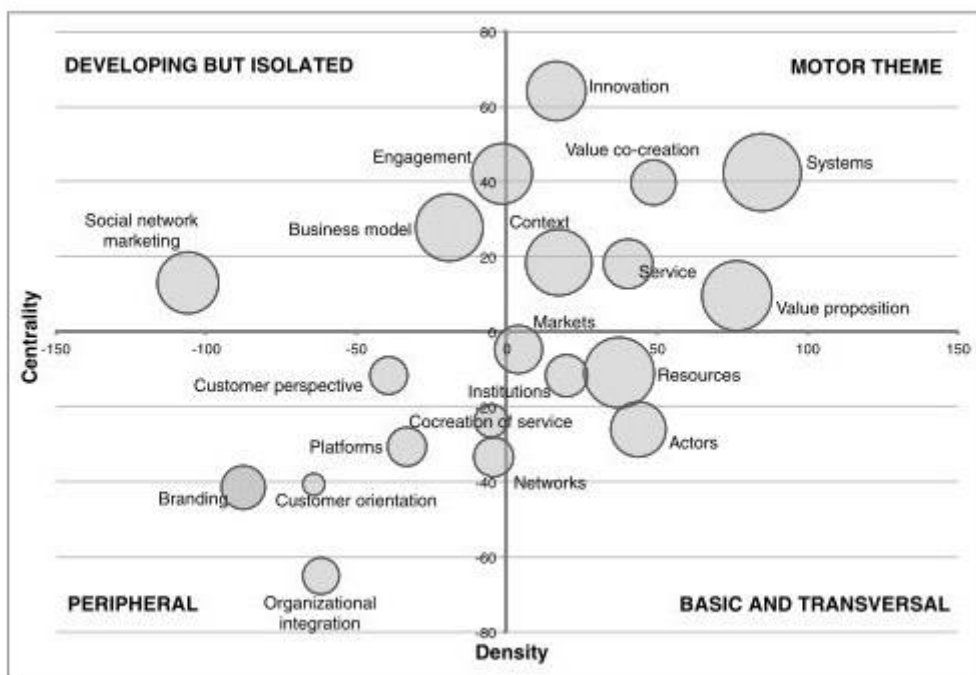
2.2.11 Co-creation Trajectories

There is undoubtedly a rich and impactful research agenda surrounding the focus of value co-creation, in particular, through the lens of SD Logic. The scale of publications evolving from the stream emanating from support of Vargo and Lusch's foundational principles is escalating and interdisciplinary (Pohlmann and Kaartemo, 2017). The potential to explore 'service' as the fundamental basis of exchange where the complexities of economic, social, technological and cultural perspectives are changing world views is evidently fruitful, impactful and rewarding (Breidbach and Maglio, 2016).

The co-creation of value through SD Logic is rapidly acknowledging the systems, stakeholders and ecosystems contexts, beyond the dyadic and historic viewpoint of customer and firm by encompassing the many, particularly in terms of areas where ICT is the fundamental delivery agent (Von Hippel, 2009). B2C and C2C begins to emerge in such service ecosystems as the M2M perspective, across

micro, meso and macro levels. Creating and iterating value propositions in these more dynamic experience settings such as those of events and festivals, will offer new contexts of co-creation where disparate groups are banded together, often with competing objectives but with more commonality in purpose, to co-create value for all, through a network of actors and actants (Labour, 1990). Figure 2.3 below from Pohlmann and Kaartemo (2017), provides a useful figurative assessment of the research trajectories of SD Logic and highlights the scholarly activity across multiple disciplines considered as emerging and the study was facilitated through application of the Delphi technique.

Figure 2-3 Future Trajectories of SD Logic based on Delphi Method, Pohlmann and Kaartemo (2017, p.62)



A fundamental conclusion drawn by Breidbach and Maglio (2016) relates the impact on traditional service interactions which ICTs are affecting. These ICTs facilitate many of the motor themes outlined in figure 2.3 and what can be seen is the emergence of platforms as a distinct theme in and of themselves. Examples such as the individual experience of online messaging services or chatbots (Tussyadiah, 2018), or in event contexts, such as through events which are time limited and deliver a collective service (Bowdin et al., 2012). Although positioned as somewhat peripheral in terms of the diffusion of SD Logic, it is noteworthy

that platforms are deemed to improve customer participation in innovation (Von Hippel, 2009) yet little research from the marketing perspective has focused on the systems, processes and contexts of co-creation which emerge through platforms adopted in M2M contexts (Briedbach and Maglio, 2016). Indeed, in their review of SD Logic 's trajectories, Pohlmann and Kaartemo (2017, p.62) call for “a pragmatic taxonomy of actors and non-human actors (actants), as well as classification and representation of their roles and types of engagement.” It is on this basis that this thesis proceeds to explore the impact of ICTs on the event experience in an era of near ubiquitous connectivity, driven by smart and social technologies.

2.3 Experience Co-creation – Methods of Analysis in the Event Context

According to Campos et al. (2015), there are two main perspectives of co-creation within the literature which require understanding when considering the concept; the destination/organisation perspective and the consumer perspective. Fundamental to the influencing of both of these perspectives is experience design where engagements are made interesting and memorable through “both expectable and surprising” participant interactions (Nordvall, 2014, p.250). These value in context elements are present in cognitive, conative and affective experience dimensions (Getz, 2012). The most frequent dimensions of co-creation considered by prior research include “co-creation of experience value or meaning, co-creation as co-design of the experience, co-creation as the tourist's active participation and interactions (Campos et al., 2015, p.26).”

In positioning these dimensions further, Lusch and Vargo (2014) present ‘service ecosystems’ as a conceptualisation beyond direct and indirect value networks in experience domains. These systems can be explored as societal subsystems. For example, at the individual actor level (or intra level), evolving out to dyadic and triadic shaped (micro level), or the experience-scape itself (the meso level) and finally, the entirety of society/economy (macro level). These service ecosystems can be perceived as being self-adjusting and where successfully meeting co-creation in context, creating value in the life-worlds of participants (Horbel et al., 2016).

With further consideration, Horbel et al. (2016, p.513) posit, participant lifeworld's in the context of co-creation. Arguing these are partially influenced by the “norms,

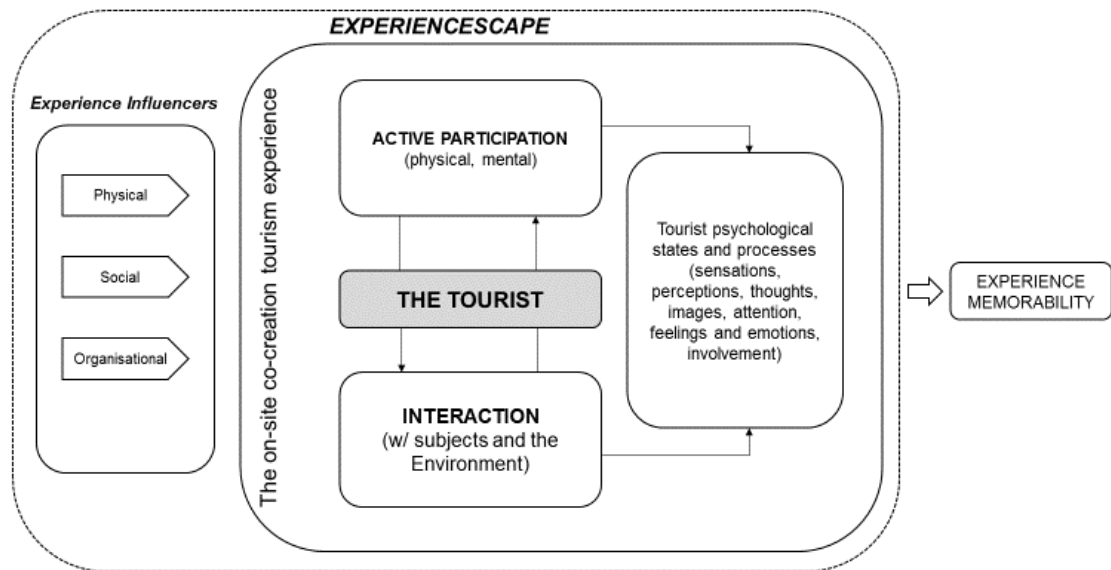
meanings, symbols, laws, and practices” presented by the actors (particularly institutions) in the value chain. Thus, the providers offering must be suitable to build upon the customer’s knowledge and skills, through their network of resource integrations and connectable (where required) with other market-facing or public services, providing co-creation value in context (Horbel et al., 2016).

Context is a critical factor in determining the opportunities for co-creation of value. This is often where value co-creation is best referred to as value in context (Chandler and Vargo, 2011). In considering the event experience, much of the perspective of recent research has been focused on the ‘in-experience’ component due to its importance for meaning making and memorability (Campos et al., 2015). It is equally arguable that connection to meaning-making and opportunities to enhance the critical and central experience phenomenon, are opportunities to connect both pre (the anticipatory phase) and post-experience (reflective/rewards phase) through social and organisational touchpoints (Filep et al., 2015). In presenting their conclusions on co-creation Campos et al. (2015, p.26) posit:

“research is needed to examine to what extent co-creation experiences involve active participation and interaction, how co-creation affects psychological processes (perceptual, cognitive or affective), and how these might in turn impact on the memorability of experiences”

Their model (see Figure 2.4 below) provides a useful means by which to explore the experience-scape. Although their main focus is on the power of ‘in-event’ moments, it is reasonable to concur that the extension of experience memorability may be affected by the presence of ICTs before, during and after the experience (Neuhofer and Buhalis 2012; Tussyadiah, 2015b).

Figure 2-4 On-site Co-Creation Experience: A Conceptual Framework
 (Adapted from Campos et al., 2015, p.24)



One final but important distinction of value in context in congruence with this study is a representation of where value is sought but the outcome is negative and value-reducing or destroying (Neuhofer et al., 2016). WIFI provision and smartphone impacts in Hutchins (2016) analysis of a European football experience, which focused on barriers to co-creation at the event (in terms of its unique communitas), is one of a very limited number of studies which have focused on the potential of resource or actor integration as destructive in value creation processes (Carù and Cova, 2015).

2.3.1 Technology in Experience Co-creation or Co-destruction.

Importantly in consideration of ICTs in the co-creation process, is that technology can be seen as a resource at one level but can also be construed as resistance at another level, in a different use context (Akaka and Vargo, 2014). Indeed, as Neuhofer (2016, p.790) highlights, experience designers:

“need to be aware that technology facilitation and technology-enabled experience environments can potentially become value-destructing when tourists seek to escape, relax and break free from technology and desire to live in the moment and want to fully immerse in the tourist experience on-site”.

This 'flipside' of technology must, therefore, be better understood in the context of the evolving event experience. This is where consumers seek the benefits of sharing content, communities and context whilst also paying heed to the co-destructive nature of such connectivity in terms of the important liminal phase of the experience journey through detachment from the every day (Rihova et al., 2013; Caru and Cova, 2015; Neuhofer et al., 2017). ICTs such as social media, often create escapism barriers, interfere with the lived event experience and add a further distraction in experiential settings (Neuhofer et al., 2016a). In a world of ever more ubiquitous connectivity, this is a subject worthy of deeper analysis (Gretzel et al., 2015a).

2.4 Connectivity, Communities and Co-creation in the Event Context

Given this new and validated source of customer value through B2C and C2C co-creation, it is important to distinguish the significance and experience enhancing impact that socialisation creates more generally at events (Nordvall, 2014). This is particularly through the context of known group, external and crowd socialisation (Rihova et al., 2015). As will be discussed in the next chapter of the literature review, experience design principles are suggested to be central to meeting the needs of event design practitioners through better connection to the creation of experiential meaning (Berridge, 2012a). This is also the case with an argument presented for experience design to connect and nurture the relations of C2C engagements in both physical and digital contexts (Neuhofer et al., 2012).

With the developments since the introduction of Web 2.0, and the plethora of ICTs which have assisted the developing co-creation practice of both consumers and businesses (Buhalis and Law, 2008), there is a re-prioritising of the dyadic relationships of B2C experiences (Sigala, 2009) toward a more connected and integrated experience-scape which could lead to increasing MTM value co-creation by supporting a multi-phased and multi-dimensional journey of tourism (Neuhofer et al., 2012) or event co-creation (Rihova, 2015). Indeed, many scholars posit the centrality of consumer to consumer interactions as integral to the discourse around the future of co-creation practice in tourism and events (Baron and Harris, 2010; Rihova et al., 2015; Campos et al., 2015).

One further conception of co-creation which further develops the perspective of how value is derived and with whom is that of actor to actor co-creation (A2A) which has been introduced by Vargo and Lusch (2011). This is becoming ever more fundamental to the emerging perspective of connected and Smart Tourism (Buhalis and Amaranggana, 2014). Vargo and Lusch (2011) make the important leap from linear conceptions of co-creation, to acknowledge that through digital means, co-creation is being facilitated through a more complex system of actors in ever more dynamic ways (Buhalis and Amaranggana, 2013; Gretzel et al., 2015a; Koo et al., 2016; Buhalis and Leung, 2018) .

Fuelled by the integration of ICTs with the event experience (Luxford and Dickinson, 2015), and the proliferation of technology use throughout the consumption of tourism and event propositions (Gyimóthy and Larsen, 2015), it is useful in the context of this study to acknowledge the importance of a wider and less dyadic view of co-creation (Sigala, 2009; Best et al., 2018). Indeed, as presented by Rihova (2015), those involved in creating festival and event experiences should be more cognizant of exploring how customers live their lives and the contexts through which various actors (human or technological) are engaged to create value in their co-creation sphere (Buhalis and Foerste, 2015; Buhalis and Leung, 2018). This broader conceptualisation provides a more dynamic perspective allowing this study to recognise multiple levels of co-creation, often technology enabled, between actors throughout the consumption journey (Vargo and Lusch, 2011).

As highlighted earlier, Agrawal and Rahman (2015) provide a very useful conceptualisation of the value co-creation process (see Figure 2.2). Through this perceiving of the co-creation roles, exchange and outcomes which make up the process, it is easier to relate co-creation more holistically. In doing so, Agrawal and Rahman (2015) present an elegant and simple model through which to begin to perceive the potential of co-creation across realms or the event experience-scape (Benkendorff and Pearce, 2012).

Indeed, as Rihova et al., (2015, p.361) note in presenting the opportunities for leveraging actors in the experience network, event “marketers can target pre-

liminoid practices on the social bubble level through marketing communication using, for instance, various social media platforms.”

It would seem pertinent, therefore, to assess what types of pre-liminoid experience outcomes can be met in this anticipatory phase of the multiphase event. It is also important to suppose what perspectives of post-event memorability and satisfaction can be supported and underlined to assure loyalty and maintain future goodwill (Quinn, 2013). Getz and Page (2015) go further in concurring that there is a need for more focus on why event experiences are memorable, transforming and satisfying and in acknowledging the potential for negative experience outcomes (Caru and Cova, 2015). Given the consequences of these to personal and social experience encounters, the following chapter focuses on what the event experience is. It does so through firstly granularising the event experience, secondly reviewing key literature pertinent to the evolving event experience and finally assessing the impact of ICTs on tourism and event experiences as a means of framing the study moving forward.

2.5 Chapter Summary

This chapter has provided the theoretical basis to explore co-creation in the context of event experiences. By theoretically embedding co-creation within the services marketing and management discipline, the chapter introduced the development of co-creation from its roots in service marketing toward the paradigm shift in general marketing toward SD Logic. This is the theoretical lens adopted for the development of the study with value co-creation grounded within SD Logic assumptions. A review of the emergence of value co-creation, roles, interests and tools and the exploration of multi-stakeholder co-creation were discussed and supported. The critical and developing context of many to many (MTM) co-creation was explored and subsequently methods of analysis of co-creation and the communities and connectivity of value co-creation in event contexts were contextualised. This, as a pre-cursor to deeper exploration of the digital event experience which is the focus of the next chapter. The following chapter will also conclude by bringing together the research gaps identified through literature review and present the theoretical framework and warrant for this research.

Chapter 3 LITERATURE REVIEW EVENT EXPERIENCE AND TECHNOLOGY

3.1 Introduction

Having explored co-creation through the lens of SD Logic in the previous chapter, focus now turns to the critical analysis and in-depth pursuit of the remaining key theoretical developments of this literature review, namely the theoretical framework of the event experience and the impact of ICTs on evolving event experiences. The research adopts an interdisciplinary approach to successfully accomplish this task, allowing for the conceptual origins, complexity, subjectivity and uniqueness of the event experience context to be elaborated and unfolded.

The chapter will conclude with the identification of critical gaps in the literature which are addressed and in so doing, highlights theory which will underpin the study going forward. This process thus sought to amalgamate the three theoretical streams pertinent to the study, namely a) Co-creation; b) The Event Experience; and c) ICTs impacting experience.

3.1.1 The Event Experience – A Granular Perspective

The first objective of this chapter is to gain a granular perspective of the event experience through a systematic identification process toward granularising elements in order to gain a more holistic understanding of the phenomena. Bryman (2016) highlights the advantages of secondary sources such as literature as a means of gaining insights and ideas of the area under focus and a valuable source prior to carrying out primary research. As such, the ensuing chapter of the literature review seeks to review past studies and academic contributions to reveal the granular elements of the event experience in order to support the theoretical framework underpinning the study.

The term granular is one which has been used and applied in several fields, from physics, computer sciences (Liang, 2011), in the field of tourism (Neuhofer, 2014) as well as in event studies (Rihova et al., 2015) and relates to the 'essence' or 'finest', 'distilled' and 'most detailed' notions of the phenomena of study. Its appropriateness as a means of exploring the event experience phenomenon and

through a service dominant logic lens (Vargo and Lusch, 2016) is one which allows for a better understanding of the micro-moments and interactions at play through the micro and macro levels, where units of understanding range from large to small including a finer-grained dimension which imposes the highest level of granularity (Karlsen et al., 2012).

The unit of analysis for this research is that of journal articles. These were targeted in the context of 'the event experience' and used to extract the granular elements of the phenomena. The selection of appropriate articles was focused on accessibility, relevance and availability and several databases were explored including EBSCOHost, Science Direct and Google Scholar which are often related as the most popular databases of research and have facilitated prior analysis most suitably (Leung et al., 2013). This review builds on the work of Morgan (2007), whose work highlights the key elements at a macro level of the festival experience, which was garnered through a service experience perspective and as such, provided a more context dependent, holistic and dynamic view of the event experience (Getz and Page, 2016). It supports a multi modal and multi model blend of motivations, emotions, cognitions and meanings (Arnould and Price, 1993).

The total number of papers identified and scanned for potential inclusion was 328. A subsequent review and analysis reduced the number of journals for inclusion to 46 articles (see appendix 1 for Journals included). The following table presents the granular factors identified through review of the literatures and offers a short narrative based on each dimension of granularity. The process follows that of Neuhofer (2014), in developing an appropriate 'fine grained' assessment of the event experience phenomenon.

Table 3-1 Granular Elements of the Event Experience

Granular Category	Dimension I	Dimension II	Source of Literature
Significance	historical/ cultural significance	a special and unique experience in time	Morgan 2008; Morgan, 2007 citing Chhetri, Arrowsmith and Jackson, 2004; De Geus, Richards and Toepoel, 2016 citing Getz, 2012; Ayob et al 2013; Berridge 2014; Holst Kjaer 2011; Pilcher and Eade 2016
	extraordinary, novel experience	a space and time outside of everyday life; a sharp contrast to everyday life	Morgan, 2007; De Geus, Richards and Toepoel, 2016 citing Pine and Gilmore, 1998; Funk et al 2011; Jeffries and Lepp 2011; Nordvall 2014; Rihova 2013; Wood 2009; Ziakis and Boukas 2013
	significance in personal identity narrative	individual narratives important in shaping personal identity	Kinnunen and Haahti; Robertson et al, 2015 citing Arcodia and Whitford, 2006; Hauptfleisch, 2006; Mehmetoglu and Engen, 2011; Lee et al 2016; Shipway et al 2016
Authenticity	memorability	subjective memorability constructed by individual narratives	Morgan, 2008, 2007 citing Pine and Gilmore, 1999; Ayob et al 2013; Berridge 2012, 2014; Emery et al 2016; De Geus, Richards and Toepoel, 2016; Holst Kjaer 2011; Hudson and Hudson 2013; Jeffries and Lepp 2011; Jonson et al 2015; Kim and Jang 2016; Mannell and Iso Ahola 1987; Rihova 2013
	authentic cultural experience	interaction with the narrative staged by the local community	Getz 1989; Morgan, 2007 citing Mattheson, 2005; De Geus, Richards and Toepoel, 2016 citing Stamboulis and Skayannis, 2003; Duran and Hamarat 2014;
	community involvement	involvement of whole community in creating a liminal experiential zone	Getz 1989; Pettersson and Getz, 2009; Getz and page 2015;
	creation of a liminal experiential zone	temporal space and time of an event creates a temporal liminoid experience	Getz and Page, 2016; Ziakas and Boukas, 2013; Holst Kjaer 2011; Ziakas and Boukas 2013, citing Getz 2008

Granular Category	Dimension I	Dimension II	Source of Literature
	special geographical setting	location and geography contributes to the creation of a special setting in which a liminal/liminoid experience is created	Getz 1989; Pettersson and Getz, 2009; Andersson and Armbrecht 2014; Duran and Hamarat 2014; Couto et al 2016;
Appeal	unique event personality	unique and attractive personality of event	Morgan, 2008, 2007 citing Silvers, 2004; Getz, 2002; Pilcher and Eade 2016; Kaplanidou 2010
	personal identification with event personality	identification with values and ideological significance of event	Morgan, 2007 citing Kapferer, 1998; Kaplanidou 2010; Morgan 2008
	social opportunities	motivation to socialise is as appealing as event programme	Nordvall et al, 2014 citing Getz, 2012; Nordvall et al, 2014 citing Morgan, 2008; Nicholson and Pearce, 2001; Robertson et al, 2015 citing Bowen and Daniels, 2005; Nordwall, Pettersson, Svensson and Brown, 2014
	hedonism and fun	hedonism, happiness, humour and fun	De Geus, Richards and Toepoel, 2016 citing Bigne, Andreu and Gnoth, 2005; Farber and Hall, 2007; Hills and Argyle, 1998; Hosany and Gilbert 2010; Lee, Datillo and Howard, 1994; Mannell, Zuzanek and Larson, 1998; Nawijn, 2011; Filep et al, 2015 citing Lyubomirsky, 2007; Peterson, 2006; Seligman & Csikszentmihalyi, 2000; Filep et al, 2015 citing Pettersson and Getz, 2009; Hinch & Higham, 2005; Lamont & Jenkins, 2013
Locality (Destination/ geographical experience)	natural and cultural heritage of destination	appeal and attractions of destination	Morgan, 2007 citing Van Zyl and Botha, 2003; Andersson and Armbrecht 2014; Couto et al 2016; Duran and Hamarat 2014
	authentic cultural experience	interaction with the narrative staged by the local community	Morgan, 2007 citing Mattheson, 2005; De Geus, Richards and Toepoel, 2016 citing Stamboulis and Skayannis, 2003

Granular Category	Dimension I	Dimension II	Source of Literature
	special geographical setting	a special location help create spatial and temporal bonds between people and place	Berridge 2012, 2014; Ayob et al 2013; Pettersson and Getz, 2009 citing Ryan, 2002; Du et al 2015; Emery et al 2016
Emotionality (Affective/ Emotional Experience)	liminoid experiential zone	location and geography contributes to the creation of a liminoid experience	Berridge 2012, 2014; Ziakas and Boukas 2013, citing Getz 2008; Andersson and Armbrecht 2014; De Geus et al 2016; Lee et al 2016; Patterson and Getz 2009; Rihova 2013
	happiness, hedonism, fun and humour	positive emotions contributing to wellbeing and happiness	De Geus, Richards and Toepoel, 2016 citing Bigne, Andreu and Gnoth, 2005; Farber and Hall, 2007; Hills and Argyle, 1998; Hosany and Gilbert, 2010; Lee, Datillo and Howard, 1994; Mannell, Zuzanek and Larson, 1998; Nawijn, 2011; Filep et al, 2015 citing Lyubomirsky, 2007; Peterson, 2006; Seligman & Csikszentmihalyi, 2000
Multisensory (Multisensory/ physical Experience)	emotional attachment and conviction	conviction and attachment to the worth of the event	Filo et al 2009; Kaplanidou 2010; Bouchet et al 2011; Andersson and Armbrecht 2014; Morgan, 2007 citing Burr and Scott 2004; Getz and Page 2015
	emotional intensity and extremes	intense, peak experience	Morgan, 2007 citing Arnould and Price, 1993 citing Coon, 1958; De Geus, Richards and Toepoel, 2016 citing Quan and Wang, 2004
	multi-sensory experience	event experience manipulates and plays the five senses creatively	De Geus, Richards and Toepoel, 2016 citing Gupta and Vajic, 1999; Shaw and Ivens, 2005
	'experience-scapes' and 'sensescapes'	individual imaging and feelings contributing to experience	Getz and page 2015; Pettersson and Getz 2009; De Geus, Richards and Toepoel, 2016 citing Larson, 2007; Pettersson and Getz, 2009 citing Mossberg, 2007; Urry, 2002
Cognitive (Cognitive Experience)	'mindscapes'	individual imaging, daydreaming and emotions contributing to experience	Getz and Page, 2016; De Geus, Richards and Toepoel, 2016 citing Larson, 2007; Pettersson and Getz,

Granular Category	Dimension I	Dimension II	Source of Literature
Involvement (Conative/ behavioural Experience)			2009 citing Mossberg, 2007; Urry, 2002
	reflective engagement	reflective engagement with experience	Pettersson and Getz 2009; De Gues, Richards and Toepoel, 2016 citing Addis and Holbrook, 2001; Ballantyne, Packer and Falk, 2011; Gretzel et al, 2006; Gupta and Vajic, 1999
	intellectual impressions	intellectual engagement with experience	De Geus, Richards and Toepoel, 2016 citing Addis and Holbrook, 2001; Ballantyne, Packer and Falk, 2011; Gretzel et al, 2006; Gupta and Vajic, 1999
	understanding, learning and making sense	thinking, learning and understanding	De Geus, Richards and Toepoel, 2016 citing Addis and Holbrook, 2001; Ballantyne, Packer and Falk, 2011; Gretzel et al, 2006; Gupta and Vajic, 1999
	active participation, engagement and involvement	active participation, both physically, emotionally, and socially	De Geus, Richards and Toepoel, 2016 citing Ballantyne et al., 2011; Kim, 2010, Mannell and Kleiber, 1997; Schmitt, 1999; Aho, 2001; Abrahams, 1986; Andersson, 2007; Petterson and Getz, 2009
	individual active promotion	active promotion of involvement in experience	Filep et al, 2015 citing Smith, MacLeod, & Robertson, 2010; & Anderson, 2005; Holst Kjaer 2011;
	individual active participation, engagement and involvement	active participation and engagement in construction of experience	Filep et al, 2015 citing Smith, MacLeod, & Robertson, 2010; Anderson, 2005
	collective cocreation	shared cocreation experience with group	Morgan, 2007, 2008; Horbel et al. 2016; Rihova et al, 2013; Getz and Page; Holst Kjaer 2011;
	intersubjective cocreation	share co-creation between two and more people or setting	Shipway et al., 2016 ; Emery et al. 2016 ; Rihova et al, 2013 ; Holst Kjaer 2011

Granular Category	Dimension I	Dimension II	Source of Literature
Satisfaction and contentment	recognition	a part of the event tribe	De Geus, Richards and Toepoel, 2016 citing Xu and Chan, 2010; Chhetri, Arrowsmith and Jackson, 2004; Morgan, 2007 citing Goldblatt, 2002
	escapism	escape from everyday experience	Getz and Page 2015; Berridge 2012; Ayob et al. 2013; De Geus, Richards and Toepoel, 2016 citing Xu and Chan, 2010; Chhetri, Arrowsmith and Jackson, 2004
	peace of mind	security and reliability	Couto et al. 2016; De Geus, Richards and Toepoel, 2016 citing Xu and Chan, 2010; Chhetri, Arrowsmith and Jackson, 2004
	hedonic benefit	hedonic, fun, indulgent experience	Filo et al 2009; Morgan 2008; Patterson and Getz 2009; Nordvall 2014; Theodorakis 2014; Wood 2009; Wong and Sang 2015 ; Yoshida and Nakazawa 2016;
	positive emotions	contributing to wellbeing and happiness	De Geus, Richards and Toepoel, 2016 citing Tinsley, Hinson, Tinsley and Holt, 1993; Filep et al, 2015 citing Lyubomirsky, 2007; Peterson, 2006; Seligman & Csikszentmihalyi, 2000
	enjoyment	personal enjoyment and fun	Berridge 2012; De Geus, Richards and Toepoel, 2016 citing Xu and Chan, 2010; Chhetri, Arrowsmith and Jackson, 2004; Couto et al 2016; Emery et al 2016; Filep et al 2015
	novelty	escape from everyday	De Geus, Richards and Toepoel, 2016 citing Tinsley, Hinson, Tinsley and Holt, 1993; Filep et al, 2015 citing Lyubomirsky, 2007; Peterson, 2006; Seligman & Csikszentmihalyi, 2000

Granular Category	Dimension I	Dimension II	Source of Literature
	aesthetic appreciation	visually engaging experience	De Geus, Richards and Toepoel, 2016 citing Tinsley, Hinson, Tinsley and Holt, 1993; Filep et al, 2015 citing Lyubomirsky, 2007; Peterson, 2006; Seligman & Csikszentmihalyi, 2000
Social interaction/ integration	active participation, engagement and involvement	active participation, heightens satisfaction and enjoyment	De Geuss, Richards and Toepoel, 2016 citing Ballantyne et al., 2011; Kim 2010, Mannell and Kleiber, 1997; Schmitt, 1999; Aho, 2001; Abrahams, 1986; Andersson, 2007
	communitas/ neotribe	sense of community and group identity	Morgan, 2007 citing Turner, 1994; Mattheson, 2005; Nordvall et al, 2014; Pettersson and Getz, 2009 citing Hannam and Halewood, 2006; Rihova et al, 2013, 2014
	sense of community pride	sense of community pride and excitement	Getz 1989; Morgan, 2007 citing Arnould and Price, 1993; Filep et al, 2015 citing W. Kim & Walker, 2012;
	sub culture	communities created through identification with event personality	Getz and Page 2015; Pettersson and Getz, 2009 citing Green and Chalip, 1998, Oliver, 1999, Muniz and O'Guinn, 2001; Lee et al 2016; Shipway et al 2016
	socialisation with friends/ family	family togetherness; novelty, escape, excitement together	Morgan, 2007 citing Kim, Uysal and Chen, 2002; Mason and Beaumont-Kerridge 2004; Nordvall et al, 2014; Rihova et al, 2013
	increased connectedness	temporal decreased sense of social isolation	Nordvall et al, 2014 citing Grove and Fisk, 1997, Huang and Hsu, 2010, Harris and Reynolds, 2003, Wu, 2007; Rihova et al, 2014; Filep et al, 2015 citing Gibson et al, 2014; W. Kim & Walker, 2012
	positive atmosphere	positive atmosphere of people gathered together to have fun	Berridge 2012; Nordvall et al, 2014 citing Gelder and Robinson, 2009; Andersson and Armbrecht 2014; Couto et al 2016; Emery et al 2016

Granular Category	Dimension I	Dimension II	Source of Literature
Personal Identity	self-image	how consumer appears in terms of physique, personality, culture, relationships, values	Morgan, 2007 citing Kapferer, 1998; Hall et al 2011; Kaplanidou 2010; Roberston et al 2015;
Symbolic meaning	self-reflection/ self esteem	how consumer feels about themselves	Morgan, 2007 citing Kapferer, 1998; Van Zyl and Botha, 2003; Filep et al 2015; Filo and Coghlan 2016; Filo et al 2009; Lee et al 2011
	identification with event personality	personal identification with event personality	Morgan, 2007 citing Kapferer, 1998; Pilcher and Eade 2016
	personalisation/ individual narrative	need to create their own identities and narratives to shape personality	Robertson et al, 2015 citing Arcodia and Whitford, 2006; Hauptfleisch, 2006; Mehmetoglu and Engen, 2011
	subjective meaningfulness	meaning created from personal narratives and subjective state of consciousness	Morgan, 2007 citing Voase, 2002; Holst Kjaer, 2011; Ziakas and Boukas, 2013
	identification with event ideologies and values	shared values and ideologies	Morgan, 2007 citing Voase, 2002; Holst Kjaer, 2011; Ziakas and Boukas, 2013; Pettersson and Getz, 2009; Nordvall, 2014
Growth (Personal Growth and Development)	experiences and memories	creating experiences and memories	Morgan, 2007 citing Arnould and Price, 1993; Ayob et al 2013; Jonson et al 2015; Kim and Jang 2016
	overcoming challenge	overcoming challenge, perseverance, teamwork	Morgan, 2007 citing Arnould and Price, 1993; Lee and Min, 2016; Rihova et al 2013
	education	cognitive and affective processing of the experience	Geus, Richards and Toepoel, 2016 citing Pine and Gilmore, 1999; Morgan, 2007 citing Mason and Beaumont-Kerridge, 2004
	fulfilment	fulfilment through personal achievement and growth through participation	Mannell and Iso Ahola 1987 ; Filep et al, 2015; Du et al 2015 ; Kaplanidou 2010; Patterson and Getz 2013
	achievement/ accomplishment	experience of achievement and transformation	Filep et al, 2015; Jonson et al 2015 ; Kaplanidou 2010; Patterson and Getz 2013

Granular Category	Dimension I	Dimension II	Source of Literature
Augmenting Technology	use of smartphone altering interaction with space and time, increasingly mediating user experience of event	<p>enabling more spontaneity and flow in decision making on the go and in maintaining network connectivity</p> <p>choices can be made on the move on the basis of immediate, personalised information and updates</p> <p>provides immediate temporal and spatial knowledge benefiting both event attendees and organisers</p>	Luxford and Dickinson, 2015 citing Campbell and Kwak, 2011; Kwan, 2007; Line, Jain and Lyons, 2011; Ling, 2004; Neutens, Schwanen and Witloz, 2011); Dickinson et al, 2012; Shwanen and Kwan, 2008; Robertson et al, 2015
	providing a more relational experience; 'networked sociality' through user generated social networking feeds	connecting users to other event attendees, organisers and others outside of the event; a delocalised sociability over distance and time, or 'networked sociality'	Hudson and Hudson 2013, Luxford and Dickinson, 2015 citing Wittel, 2001; Hoksbergen and Inch, 2016; Robertson et al, 2015
	smartphone user activity used to personalise experience for user in context at location	mobile technology enhancing connection of people to place and bringing new understanding.	Luxford and Dickinson, 2015 citing Giaglis, Kourouthanassis and Tsamakos, 2003; Hoksbergen and Inch, 2016; Wilken, 2008; Narbona and Arasa 2016; Robertson et al, 2015
	smartphone applications useful at all stages of the event experience	used prior to event, during and after	Narbona and Arasa 2016, Luxford and Dickinson, 2015, Hudson and Hudson 2013; Hoksbergen and Inch, 2016; Robertson et al, 2015
	smartphone use enhances convenience	applications to enable mobile ticketing, making payments, access information, connect with others	Luxford and Dickinson, 2015 citing Lui, 2010, Tim, Ling and Pantamacia, 2011, Wagner, 2011; Robertson et al, 2015
	use of smartphone technology to enhance individual and collective co-creation	individual and collective co-creativity and the dynamic interrelations within (involving audience, participants, performers, organisers and communities)	Holst Kjaer 2011; Hudson and Hudson 2013; Robertson et al, 2015 citing Sanders and Stappers, 2008; van Limberg, 2008; Emery et al 2016; Rihova et al, 2014; Roberston et al 2015

The table of granular factors highlights fourteen elements of the event experience. This knowledge is subsequently used as a foundation through which

to further explore the event experience in the context of co-creation through ICTs. The process of granularisation serves to provide a more specific subset of experience elements through which to focus the remainder of the literature review. The focus moves more specifically toward events as co-creation vehicles through the granular elements of involvement and also through designing for the ‘multisensory’ experience, meaning, memorability and satisfaction. The literature review then moves to assessment of the element of augmenting technology, impacting events through ICTs and social media and finishes by assessing gaps in the literature and proposing a theoretical framework suitable to further research.

Table 3-2 Focusing the Review Through Granularity

Section Title	Granular Category	Dimension I
3.3 Events as Vehicles of Co-creation	Involvement	Co-creation
3.4 Designing for the Multisensory	Multisensory	Experience-scapes’
3.5 Event Experience	Significance	Memorability
3.6 Technologies and ICTs Impacting Events	Augmenting Technology	Smartphone Applications

Prior to building on this theoretical foundation, the following sections present further background to the event experience, their origins, key perspectives, contexts, models and stakeholders.

3.2 Theoretical Framework - Event Experience

The importance of understanding the event experience and its impact has grown in priority within Event Studies. Getz and Page (2016) argue that whilst the study of experience has become more mainstream within the discipline and across multiple academic domains, it is still ripe for novel exploration. Through a myriad of contemporary methods and with a focus on unlocking the ‘phenomenon’, a diverse and increasingly innovative events industry is seeking to exploit greater knowledge of the event experience, as a means of enhancing the service

encounter (Van Niekerk, 2017). Highlighting this challenge as recently as 2016, Geus et al. (p.276) argue that it is “still unclear what event experiences exactly are – how they can be conceptualised – and subsequently operationalised.”

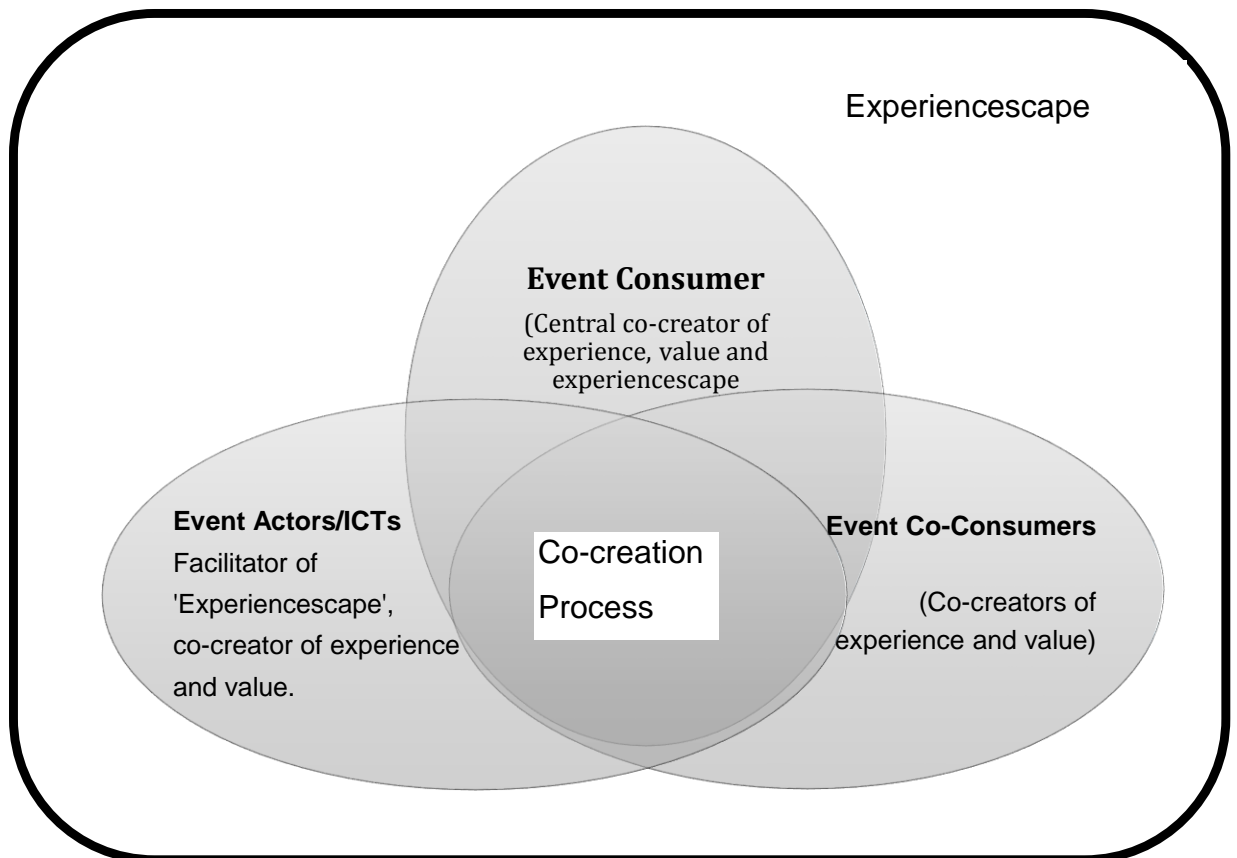
This quest for clarity is one which is driven in no small part by the multiplicity of impacts which can be derived from successfully delivering, for example, ‘extraordinary’ event experiences (Geus et al., 2016, p.275). As Neuhofer (2014b) highlights in her thesis on the technology enhanced tourist experience, previous studies have broadly contributed to understanding the tourism experience presenting “insights around the multitudinous phases, influences, outcomes, motivations, modes, types, dimensions and qualities” (Neuhofer, 2014b, p.16). Yet, there is still a lack of a holistic understanding of the ‘event experience’ through which a more context (event) specific knowledge can be underpinned (Horbel et al., 2016).

The contribution of this thesis, the Smart Event Experience (a many to many Co-creation), requires this study to first explore the emergence of the ‘event experience’ and a number of the granular elements of experience which impact upon the critical element of participant satisfaction (Berridge, 2012b). Blending insights about service encounter such as the ‘extraordinary’ (Morgan, 2007a; 2008), psychological perspectives on motivation (Funk et al 2001; 2002; 2003), and design insights, such as the ‘multisensory’ experience-scape (O’Dell and Billing, 2005; Berridge 2014a), this study arrives at some of the components which will be explored. This more holistic understanding of the benefits gained in assessing the impact of new digital media consumption models (Joo and Sang, 2013), across the stages of event experience (Benckendorff and Pearce, 2012; Neuhofer, 2016b) creates new knowledge of the challenges and opportunities of many to many co-creation leveraging SD Logic within the context of modern event experiences (Rihova et al., 2018).

Larger events can be conceptualised to some degree within the dimensions of destination competitiveness due to the scale and regularity of their operation (Getz and McConnell, 2014; Koo et al., 2016). According to Van Niekerk (2017), events should be driven by the demand side, managed from the bottom-up at a destination level, integrated into sustainable ways and be part of a balanced

experience offering. In exploring the event experience in the context of the digitally enhanced experience, the following theoretical proposition is adopted as a means of embedding co-creation theory within the context of many-to-many co-creation).

Figure 3-1 Co-creating the event experience adapted from Neuhofer et al., (2012, p.40)



Adapted from Neuhofer et al. (2012), who built upon Vargo and Lusch (2004) and by presenting actors in the sense of co-creation theory (Rihova et al., 2015; Rihova et al., 2018), the focus is on exploring literature related to the event experience as it is consumed, created, co-created, acted on and pursued. This is related across the multiphasic nature of the event lifecycle but with a particular focus on the critical on-site phase where meaning and attachment are formed (Campos et al., 2015). There is some discourse on focusing too closely on in-event experience solely as Geus et al. (2016, p.280) clarify in their reckoning that:

“event experiences are viewed as a process: when certain conditions are met, an (multi-phased and multi-influential) experience can occur, resulting in multiple outcomes. This experience has cognitive, conative and affective

components. At present, however, the core of the event experience itself remains rather a black box.”

3.2.1 Event Experience - Origins

The word ‘experience’ can be construed as being vague in its use and as regards any potential to provide clarity in definition (Geus et al., 2016). It can be seen as being both impact and impacted in relation to the human condition and as such must be understood across a number of contexts (Getz, 1997). Event experiences must be viewed as distinct and separate from day-to-day experiences, in a realm other than normal (Walls, Okumus, Wang, and Kwun, 2011). Many authors in the study of the event experience are consistent in their presenting of the phenomenon as complicated, multifaceted and multi-dimensional in nature (Morgan, 2008; Berridge, 2007; 2012a; Getz and Page 2016; Geus et al., 2016; Richards, 2017). In seeking to attain a broader understanding of the phenomena, an exploration of the roots of its study must first be attempted.

Events are timeless in their existence and have been evidenced through anthropology as an integral element in the social, liminal and sensory human experience (Szokolczai, 2009). They serve many and varied needs, from the celebratory to the ceremonial and functional (Getz, 2008a) and can be broadly categorised across a multiplicity of domains such as cultural, business, sports, arts, politics and private (Getz and Page, 2016). Key to the differentiation of event studies in an academic sense is its critical aim, which is posited by Getz as being centred on “a unique core phenomenon as the principal focus for academic inquiry” (Getz and Page, 2016, p.1).

In definitive terms, an ‘event’ is more easily articulated than an experience (Geus et al., 2016). Experience as a term is somewhat ambiguous and has been used interchangeably as both external and internal in construct (Quinn, 2013). A simple way to examine it as proposition is to firstly explore it as it is commonly and appropriately used in discourse. Both science and philosophy roughly agree on some key fundamentals which help to begin to unravel its terminological

mysteries and intricacies. In its use within the English language, it describes the combination of life events a person has had involvement with (Aho, 2001). For instance, it could be as a noun used by an event volunteer during an interview when they state, 'I have event experience', it is an objective summation and does not provide any indication of sense, emotion, motivation or the subjective nature of the particular experience. Its use as a verb is in juxtaposition and more subjective. For example, if an event goer suggests they have experienced security, this eludes to a conscious and sensation filled encounter, be it happy, sad, delighted, disgusted or demoralising (Rossman and Ellis, 2012). Thus, care must be taken in agreeing on the fundamental construct (Aho, 2001).

The anthropological origins of the study of event experiences are best understood through the differentiation of event and experience about the meaning placed on these terms. Experience has been defined both as an accumulation of (multiple), as well as an independent occurrence (individual), leading to intra-personal psychological outcomes (Abrahams, 1986). These have been initially understood by the way in which an individual subjectively explores an environment and an encounter through their indigenous lens (Bruner, 1986). Therefore, from a sociological, anthropological perspective, it is useful to explore the interconnectedness and interactivity of an experience, which is more individual rather than an event which is something which can be seen in a more societal context (Abrahams, 1986). A further critical determination is to highlight the significance of the encounter as something beyond 'normal life' and an element of which event experiences as 'special events' is founded upon (Getz, 1989). These are infrequently occurring and even onetime events, which are also limited in duration are leisure as social opportunities beyond the everyday experience (Jago and Law, 1998).

Given the nature and meaning assigned by individuals to their experience and as such, therefore, critical to the current body of knowledge relating the event experience, is the relevance of contributions from the discipline of psychology (Larsen et al., 2007). Larsen et al. (2007) present experience as being a cognitive activity experienced subjectively by a human being. In so doing, they concur with the sociological perspective of experience. In their seminal work "Psychological Nature of Leisure and Tourism Experience", Mannell and Iso-

Ahola (1987) highlight the psychological benefits derived from leisure and tourism experiences. They relate the broad approaches adopted to the understanding of experience within the leisure and tourism literature. Mannell and Iso-Ahola (1987), discuss three approaches to exploration of the subject. The authors' term these as 'definitional', 'post-hoc satisfaction' and 'immediate conscious experience' - their review of the literature highlights the varying degrees to which tourism or leisure scholars approach the understanding and measurement of 'experience' in their contexts. The following section will examine specific discourse relating to the study of the event experience.

3.2.2 Event Experience - Key Perspectives

In Event Studies, much knowledge has developed from a focus on, and adoption of, Getz's (2007, p10.) 'framework for understanding and creating knowledge about events.' The framework, which has been widely utilised by researchers across the discipline has offered an elegant and easily understood model from which to develop knowledge (Morgan 2008; Berridge 2012a; Andersson and Armbrecht, 2014; Luxford and Dickinson 2015; Geus 2016). At the heart of this framework, we see 'nature and meanings of event experiences' (Getz, 2007, p10.) as the critical process through which the planning and management of events and the impacts and outcomes of events tend to derive importance. This central focus binds the overarching interest in personal motivation and antecedents, as well as the patterns, processes and places of experience. These are being explored and sought to be understood from multiple perspectives, particularly visitors, organisers and participants (Getz, 2007; Getz and Page, 2016).

An important step in trying to establish the interlinkages of these core dimensions of the event experience is to seek a definition of what researchers and academics suggest constitutes the event experience. In describing planned events as the "intent to create, or at least shape, the individual and collective experience of the audience or participants" by Getz (2007, p.9), a crystallisation of where the discipline of Event Studies begins to forge its emerging dominant epistemology and boundaries of evaluation are revealed. This is presented as a focus on individual or collective experience and by defining the potential of 'planned

events' to create or shape audience and participant experience outcomes (Mair and Whitford, 2013; Getz and Page, 2016).

There is some discourse in terms of contextualisation evident which can be seen from Geus et al.'s (2016, p.277) definition of the event experience:

“the event experience is an interaction between an individual and the event environment (both physical and social), modified by the level of engagement or involvement, involving multiple experiential elements and outputs (such as satisfaction, emotions, behaviours, cognition, memories and learning), that can happen at any point in the event journey.”

Here we are more concerned with the individual and a more subjective outlook as opposed to the more holistic focus of Getz and others (Tassiopoulos, 2010; Berridge 2014a) on both the individual and the collective.

Taking account of the obvious distinction between planned and unplanned events (Getz, 2012) and focusing solely on planned event experiences (Getz, 2007), allows for a more specific analysis of key literature. Particularly about the nature of experience within the context of Event Studies (Morgan, 2008). According to Berridge (2012a, p.274) “modern event management is largely about the delivery of experience or experiences.” Thinking within the discipline is evolving out from analysis such as event evaluation, sustainability as well as impact and the impacted (Mair and Whitford, 2013; Devine and Devine, 2017). Indeed, determining the experiences of attendees of events and managing these is of critical importance to an event's success (Manners et al., 2014) and thus focus on the foundational concepts of Getz (1989; 1997; 2005; 2007; 2008; 2012) in relating the event experience is worthy of attention.

3.2.3 Defining 'Experience' in Event Contexts

Defining experience has been a challenging pursuit and provides interesting discourse within Event Studies and from interdisciplinary perspectives. Leaning on the earliest philosophies of Plato and Aristotle, Getz and Page (2015) posit the idea that experience is used both as noun and verb in descriptive attempts made by individuals to encapsulate the breadth of their 'being'. This describing works across dimensions as conative (describing their actual behaviour),

cognitive (their sense-making as experience) and the affective dimension (the feelings reflected through experience). These foundational means by which to understand the experience of being human are common sense and uncontroversial (Hilgard, 1980).

Some of the earliest portrayals of experience from sociological perspectives lean thought toward a consumptive pattern of experience and these early perspectives are acknowledged in marketing contexts of experience as 'peak' or:

“moments of the highest happiness and fulfilment. We feel more powerful than usual and experience unusual focus, joy, intensity, creativity, in other words being more fully human” (Boorstin, 1964, p.72).

With similar perspectives but differing in descriptions of the definition of experience, we have Csikszentmihalyi's (1975) seminal contribution and that of Holbrook and Hirschman (1982). Csikszentmihalyi's expression of experience as related through 'flow', expressing an experience as:

“the unified flowing from one moment to the next, in which he is in control of his actions and in which there is little distinction between self and environment, between stimulus and response, between past, present and future (Csikszentmihalyi, 1975, p.36).”

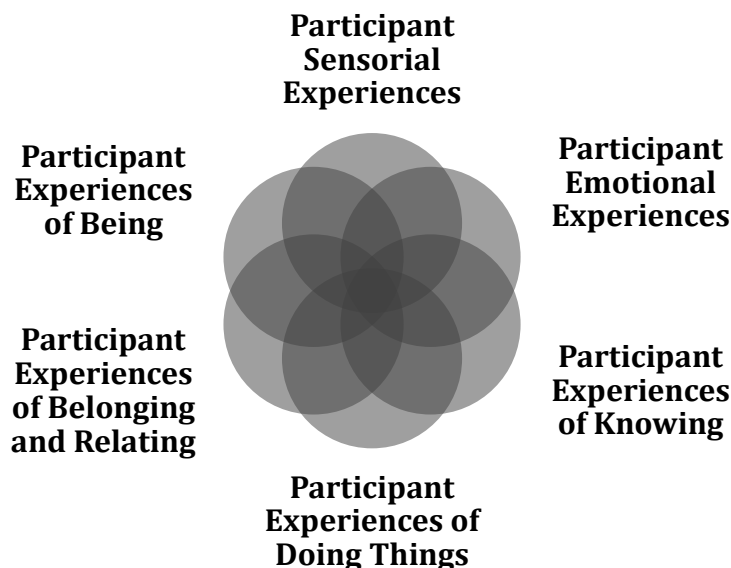
In relating experiences of a more consumer-centric experience seeking nature (Pettersson and Getz, 2009), Holbrook and Hirschman (1982, p.132) asserts that experiences are “a steady flow of fantasies, feelings and fun”.

Somewhere in the middle of these definitions of experience but highlighting the tension which pushes the seeker falls Cohen (1979, p.179). When relating from a tourist perspective, Cohen suggests “experience as either something essentially spurious and superficial, an extension of an alienated world, or a serious search for authenticity, and effort to escape from an alienated world.”

This perspective likely built on the premise adopted by MacCannell (1973) when relating the sociological motivations for experience seeking in travel where he posits experiences as responses to the issues of modernity - through the seeking of authenticity through experiences. Beyond authentic experience we have the seeking of the 'extraordinary' suggested by Arnould and Price, (1993), who talk of experiences being characterised by significant intensity of emotion and triggered

by unusual events. Mannell and Iso-Ahola (1987) eluded to these state of mind qualities and the significance of leisure to experience them more uniquely. Recently, Beard and Russ (2017) provided a useful overview of the contested and complex nature of the human experience by relating the myriad views and perspectives of authors related to the important dimensions of the event experience. Their conception, from a phenomenological standpoint, provides for six experience dimensions which clarify the subjective nature of cognitive, conative and affective states within event experiences and are presented as follows:

Figure 3-2 Adapted from Human Experience Dimensions - Beard and Russ (2017)



As Beard and Russ (2017, p.366) justifiably posit relating derived meaning to events:

“given the additional problem of a disparate event audience the design of the event experience is always going to be an inexact science, and so there will always be part of the event experience that resists any intention to homogenize.”

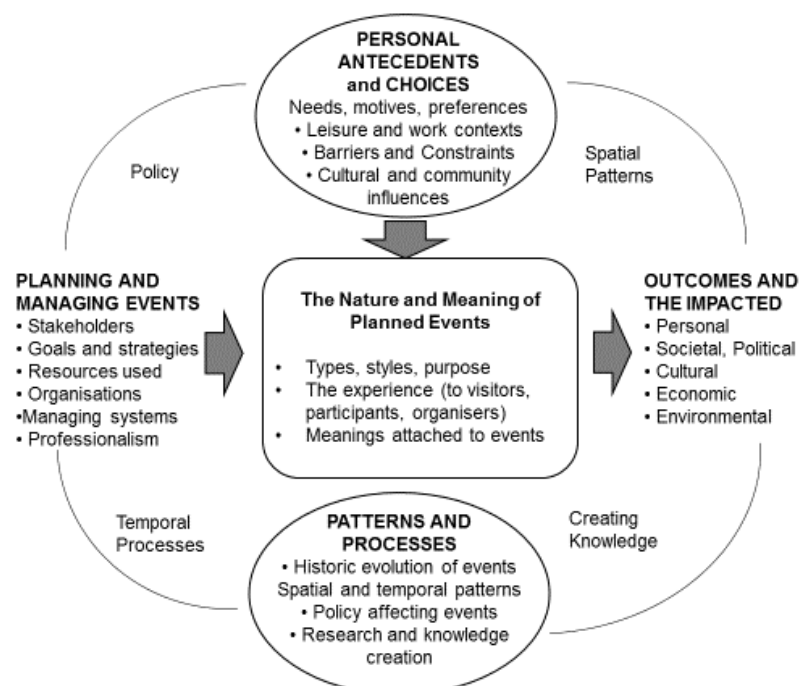
Acknowledging this challenging reality about being able to fully design experiences is important. Particularly given as they are personally developed through an individual’s socially and culturally constructed view and influenced by the social nature of events (Getz, 2008a). This makes a focus on identifying

critical dimensions of an event significant (Mair and Whitford, 2013; Quinn, 2013). With sympathy for this perspective, it is pertinent to focus on the key concepts which underline the current paradigmatic exploration of the event experience within Event Studies (Getz and Page, 2016). Indeed, as Richards (2017, p.13) posits, event experiences have evolved from being produced for the consumer (experience 1.0) to enlisting the consumer to co-create (experience 2.0) and now develop toward ‘autonomous experience journeys’ as members of experience communities (experience 3.0).

3.2.4 Key Theoretical Models Related to Event Experience

In this section assessment and critique of the specific theoretical models which have been generated and applied to the study of the event experience is carried out. There are several notable and interlinked theories offering provenance around the event experience which require analysis. Foundational to this study is Getz (2007) model of the planned event experience which provides a significant warrant for the continuing study of events in how it presents the critical components required; antecedents, outcomes and the central ‘nature’ of the event experience phenomenon. Figure 3.3 following illustrates the model.

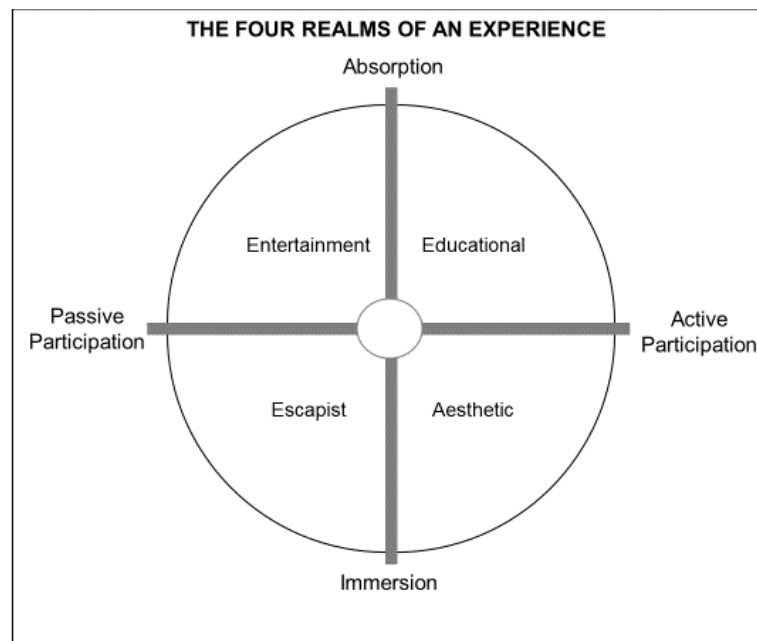
Figure 3-3 - Model of the Planned Event Experience (Adapted from Getz, 2008, p.413)



The model provides a holistic perspective of the many facets of Event Studies in relation to the core phenomenon, the experience. The field of Event Studies is focused on the creation and development of knowledge and theory relating to planned events. The core phenomenon of experience; its purpose, style and the types of experience achievable, is at the centre of this model along with the associated meanings attached and for whom those meanings are derived. Utilising this model as an overall point of initiation, and overarching host to more specific and nuanced models of experience, it is appropriate to proceed to the critical service logic of Pine and Gilmore (1998) and their writings on experience economy.

This seminal work of Pine and Gilmore (1998) is arguably the most impactful experience model created to date and one which has united both psychologists and phenomenologists in the exploration of the meaning and nature of leisure experiences is that presented in 'Welcome to the Experience Economy'. In relating its impact on and across Tourism and Leisure theory, Patterson and Getz (2013, p.232) posit, "to a large degree, this quest for understanding of the experience is the same for both event and tourism studies and lies at the heart of services marketing and the "experience economy." Their model is simple, clear and one which is pertinent regarding exploring experience across a myriad of consumer experience examples, where the sought outcome is to get to the heart of the experience. Particularly regarding defining and developing it for consumer benefit (Morgan, 2008). Figure 3.4 presents the model in its elegance and simplicity.

Figure 3-4 The Four Realms of Experience (adapted from Pine and Gilmore,1998, p.102)

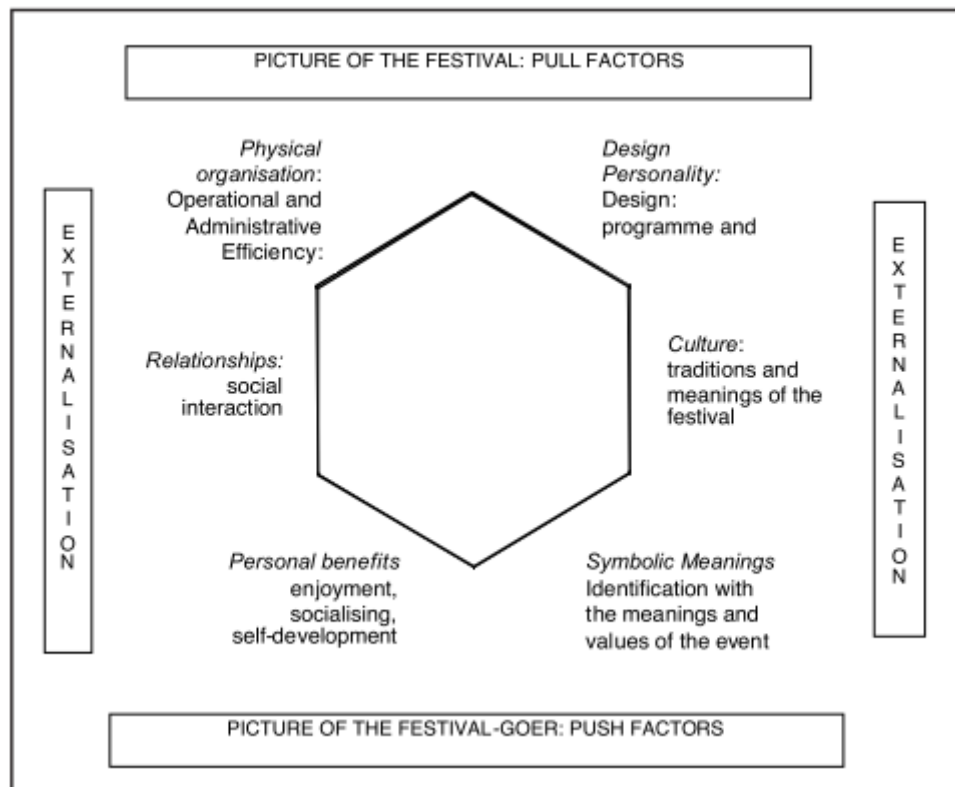


The model is useful in its framing of participation levels as a distinctive means of deepening experience outcomes such as satisfaction and memorability (Berridge, 2012a; Geus et al., 2016). It also frames experience in relation to Pine and Gilmore’s presentation of the evolution of experience as an economic offering from service marketing perspectives. This is critical for the examination of event experiences due to the economic and management paradigms which drive much of its research. Indeed, Benckendorf and Pearce (2012), arguing congruency with Pine and Gilmore’s (1999) perspective of the transitioning economy from service to experience, suggest “it would seem more appropriate to examine event settings regarding ‘experiencescapes’ (Benckendorf and Pearce, 2012, p.8).” Richards (2017) provides reasoned discourse, arguing that the model is not a perfect fit with events given that satisfaction is not contingent on event experiences delivering at the ‘sweet spot’ of the four dimensions of escapism, entertainment, education and esthetic. This sweet spot had been a key contention of the model’s authors. Also, not all events are paid experiences, which Pine and Gilmore insist as a critical underpinning of their theory.

Building on this perspective, and presenting the increasing impact of new technologies as part of experience, Pine and Gilmore (1998, p. 99) argue that “new technologies, in particular, encourage whole new genres of experience, such as interactive games, internet chat rooms and multi-player games, motion-based simulators, and virtual reality.” In relating this perspective in a more modern context, authors such as Neuhofer et al. (2012) have posited the impact of such technologies on the stages and contexts of experience co-creation and as experience mediators at a physical and virtual destination level (Wang et al., 2012).

At approximately the same juncture in time as Getz’s (2007) contribution on the model of the planned event experience, Morgan (2007a) presented an excellent lens through which to position the event experience through leveraging Kapferer’s (1998) brand identity prism. This, as part of an integrated perspective and within a social, cultural, psychological and economic context (see Figure 3.5 below). This model is useful in its presenting of the important aspects of linking the personal and symbolic with the event’s physical organisation and design/style. It highlights a need to be mindful of the importance of relationships and culture as mediators of the internal prism of experience (Morgan, 2008). Allowing for further conceptualisation of this subjective ‘experiencing’ has led to more models through which event teams can operationalise experiences (Geus et al., 2016).

Figure 3-5 The Prism of Event Experience (Morgan, 2008, p.87)

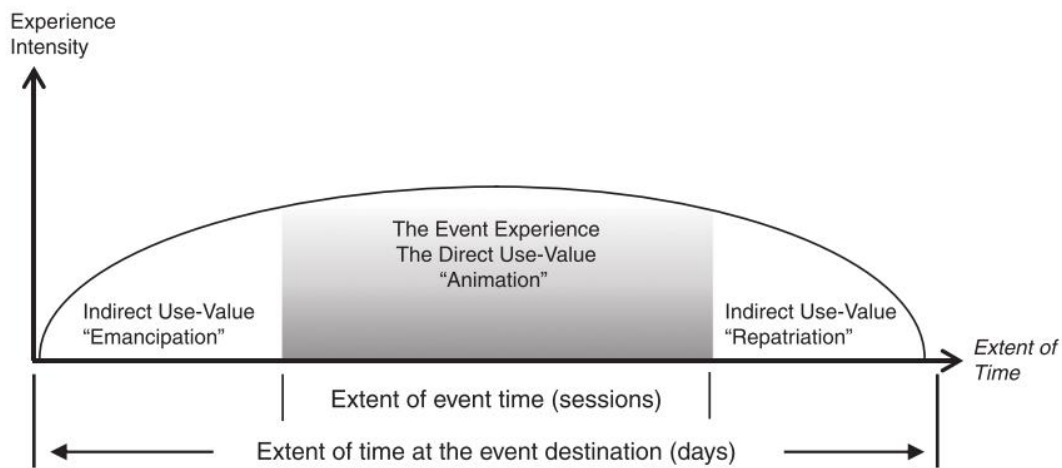


Given the social and experiential nature of how events are consumed (Berridge, 2012a), particularly in an age of focus through experience economy (Pine and Gilmore, 1998) and experience design principles (Morgan, 2008) there emerges a continuous and unfolding diaspora of event experiences to be explored and understood (Getz, 2007). This, coupled with the significant and escalating socio-cultural impact on all experiences, driven by ICT's (Neuhofer, 2016a), creates a fertile ground for new enquiry. Although this study is fundamentally based in the management sciences, it is critical to note that the experiential realm is often overlooked to the detriment of a more holistic understanding of the formation, duration and fruition of an event experience (Getz, 2012).

Focusing firstly on the most notable authors to have sought to explore the experiential, in the context of tourism and events, it is important to note the contribution of Jafari (1987, p.157), who presented "transformative ordinary - nonordinary-ordinary tourist model" as a means of understanding that connects the visitor experience to the larger context of life experience. This perspective

has been recently adapted and integrated with a use-value model by Andersson and Ambrecht (2014) from which experience can be analysed across its lifespan (See Figure 3.6 below). Their perspective of the significance of “the concepts of experience, expenditure and extent in explaining use-value as well as the reliability and validity of measurements of use-value forms a basis for further analysis (Andersson and Ambrecht, 2014, p.244).”

Figure 3-6 A model of Indirect and Direct Use-Value Created at an Event (source: Andersson and Ambrecht, 2014, p.238)



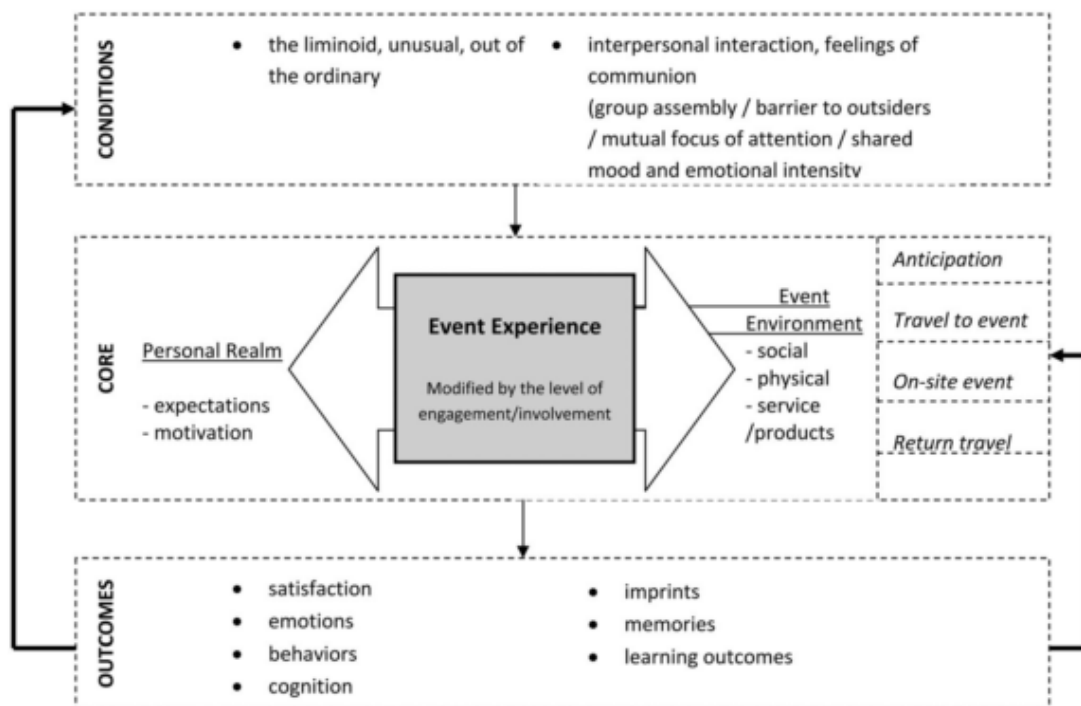
Source: Jafari (1987)

As a means of developing the ‘raison d’etre’ of events, Andersson and Ambrecht (2014, p.235) suggest that a better knowledge of experience and a general understanding is achievable through modelling value derived through event experiences, understood through the belief that measurable and valid concepts will improve research in the future.

Geus et al. (2016) present a conceptual model of the event experience (see Figure 3.7). Following on from core perspectives of event experience adopted by Getz (2007), and engaging interdisciplinary perspectives from heritage (Falk and Dierking, 2016) and tourism (Cutler and Carmichael, 2010), this conceptual model of event experience provides a useful framing of the multi-phasic and multi-

dimensional experience-scape in a manner as to coordinate the conditions, experience and outcomes at both a personal and environmental level.

Figure 3-7 A Conceptual Model of the Event Experience (Geus et al., 2016, p.277)



This is a critical perspective and one which is useful in bridging the core event experience as it is mediated at a personal and environmental level through expectations and motivations and understood through the social, physical, service/product conception of the event across its multiple stages. In further examining the event experience, as Geus et al. (2016) posit, event form and organisation are critical influences on experience. To this end, the next section will focus on the experience design perspectives and their impacts on the event experience.

3.3 Events as Vehicles of Experience Co-creation

The Event Experience is undoubtedly of core strategic importance to event management teams and stakeholders (Getz, 2008). Customer centrality and their ownership within the experience-scape, as experience co-creators, partners, co-producers, co-ideators and co-evaluators has only recently become acknowledged as being of strategic imperative to the developing logic of experience co-production and event experience co-creation in B2C and C2C contexts (Benckendorff & Pearce, 2012; Getz, 2015; Agrawal & Rahman, 2015).

In contrast, the tourism experience has been extensively explored and developed in recent times (Uriely, 2005; Morgan et al., 2010; Tussyadiah and Fesenmaier, 2009; Ryan, 2010; Tung and Ritchie, 2011; Neuhofer et al., 2012; Neuhofer et al., 2015a; Campos et al., 2015; Neuhofer, 2016b) which has provided a rich seam of theory and empirical evidence from which authors focused on the event experience have accessed and interpreted in the context of events (Getz, 1997; Morgan, 2008; Kaplanidou & Vogt, 2010; Rihova et al., 2013, Andersson & Ambrecht, 2014; Berridge, 2014a; Horbel et al., 2015; Geus et al., 2016). Apart from the pioneering works of those authors highlighted above, scant attention has been paid within Events Studies in relation to the emerging impact of ICTs in relation to the event experience and new service development (Pasanen & Honku, 2016).

This literature review seeks to address this gap by presenting an understanding of the event experience as a broader and encompassing theoretical framework, as opposed to a specific theory. It is evidently composed of fragments emerging from multi-disciplinary contexts (Getz, 2008) and the framing of these fragments as a holistic framework will support the exploration of the granular elements of the event experience which are rooted in the overall research question “how are event experiences evolving in an era of near ubiquitous connectivity, driven by smart and social technologies?”

To fully explore the event experience and gain understanding of its theoretical foundation, it is important to establish the forms, types and functions of events to gain understanding of the granular elements (Getz,

2016). Event experiences differ from other consumer experiences in many ways but have comparability in the seeking of value by consumers through experience co-creation (Rihova, 2015). In order to fully unpack the differences, as a means of relating the warrant for this research, the following section will explore events in detail, highlighting why they are different to other experiences. It will also explore the event experience at a more granular level, to gain clarity on what elements are impacted by technology and enhanced through co-creation practice (Holst Kjaer, 2011). There is also focus placed on mapping the many stakeholders and users of the digital event experience at a granular level, to understand the event ecosystem in more detail (Horbel et al., 2016). The range and duration of engagement with the event experience in terms of its complexity and multi-dimensionality is detailed. Understanding of the experience itself, the means by which it is generated, by whom and who ultimately is responsible for its impact is also reviewed. Gaining insight into who benefits from the various forms of experience co-creation in event contexts (B2C, B2B, C2C and MTM) and how this differs between events of scale is the final element explored in this approach to reviewing the event experience in light of the overarching research hypothesis that “co-creation of an event’s digital experience through Information and Communication Technology (ICT) will improve participant satisfaction and enhance the event experience overall.”

3.3.1 Event Experience – Differentiation

Events Management literature covers a breadth of management, stakeholder and consumer perspectives relating the theory of planned events (Getz, 1989; 2008a; 2012; 2013; Getz and Page, 2016). Events often have a different spatial and temporal structure to what could be termed the tourism experience and as such offer a unique opportunity for study (Pettersen and Getz, 2009). These primarily ‘socially dense’ and larger scale experiences are more often of short duration but can also include more lengthy programmes (Rihova, 2013). Additional to the boundaries of time and space, the participants of events themselves are often of differing levels of experience i.e. embedded in a fan community loyal to an event or

event context (Horbel et al., 2016), or relatively in-experienced and seeking novelty (De Geus, 2016). Perspective of event fan-types are further explored in section 3.6.5. As well as the differences noted above, a critical and key differentiator of events is that of event type (Getz, 2016),

The following Table (3.3) presents a typology of planned events (Getz, 2016) which illustrates the ‘form’ which events take. It is through ‘form’ that the development of events can be understood in terms of differentiation. When considering these forms, Du Cros and Jolliffe (2014, p.46) further categorise events as inspirational (seeking to build creative capital); affirming (seeking to link to cultural identity); pleasurable (for tourism, leisure and recreation – enriching experiences); and celebratory (lifting key ideals and such as cultural diversity). These conceptions offer a bridge between tourist and event experience as they underpin similar experience outcomes sought (Getz and Page, 2016).

Table 3-3 Typology of Planned Events – Adapted from Getz (2016, p.102)

Cultural	Business/Trade	Arts/Ents	Sport/Rec	Political/State	Private
commemorations	conventions	Scheduled concerts, shows, theatre	League play, championships	Summits	Rites of passage
Carnivals. mardi gras	Fairs, exhibitions	Art exhibits	One-off meets, tours	Royal spectacles	Parties
Religious rites	Markets	Installations and temporary art	Fun events	VIP visits	Reunions
Pilgrimage	Corporate events	Award ceremonies	Sports festivals	Military (tatoos)	Weddings
Parades	Educational, scientific congresses			Political congresses	

Events, similarly to tourism, as a sought experience, were significantly fuelled in the 20th century by increasing discretionary income and leisure time (Allen et al., 2011). Events in the 21st century continue to grow

unabated due to their ability to generate economic, social, cultural and political impact (Bowdin et al., 2011). Events can be categorised further as local and regional, periodic and one-time events, as well as periodic hallmark events and occasional mega-events (Ritchie, 1984). With a further focus specifically on sport, a typology of sporting events includes local, regional, national, international and global/mega-events (Bladen et al., 2017).

In economic terms, the events industry contributes significantly to the global economy. Within the UK alone, the top 3 contributors by event type are corporate events, estimated at £30.3bn, cultural events and festivals - £2.3bn and sporting events £2.3bn (Bladen, 2017). As can be reasoned from the typology of events in the previous figure, not all events are large scale, and many are offered at much reduced scales as still authentic and appealing in their very nature (Goldblatt, 2007). Literature relating to larger events and festivals tend to focus on economic impact and issues of sustainability (Devine and Devine, 2016)

Considering the potential to positively impact the economy through a better understanding of what experiences are being sought, this study is focused on events and their digital experiences. There is much written on the economic, socio-cultural and political perspectives of events "yet the nature of planned event experiences in general, and event tourism experiences in particular has been given little research attention." (Getz, 2008, p.413). The perspectives under research in this study are from just such tourism events.

Critically, event tourism has become a fundamental precept of pursuing strategies of competitive advantage (Getz, 2008; Koo et al., 2016) through place marketing or as a tourist attraction, image maker, tourism catalyst and animator which Getz (2008b), presents as the five key roles of event tourism. This approach as a means of development and sustainability, has been adopted internationally and is wholly embedded within regional, national and internationalisation perspectives and is thus a critical focus within Event Studies (Devine and Devine, 2017).

3.3.2 Event Experience - Stakeholders

'Stakeholder' as a term was introduced by the Stanford Institute in 1963 (Todd, 2017). With contrast to the perspective of shareholders in management theory (with direct ownership), stakeholder theory relates to the wider ecosystem of entities and people that affect or are affected by the actions of an organisation (Larson, 2009). Stakeholder theory, resource dependency and also institutional theory are all critical perspectives in the theoretical foundation of informing the debate on the multiple stakeholders involved surrounding the event experience (Andersson and Getz, 2008). The importance of stakeholders has taken more prominence since the 'fit' of events in terms of sustainability, social capital, regional development and environmental impact have become critical and more holistic concerns (Quinn, 2016).

Stakeholder theory as a management practice has concern for the satisfaction and needs through moral responsibility to a range of groups, individuals and entities within particular organisational contexts and are crucially concerned beyond those of purely financial considerations (Allen et al., 2011).

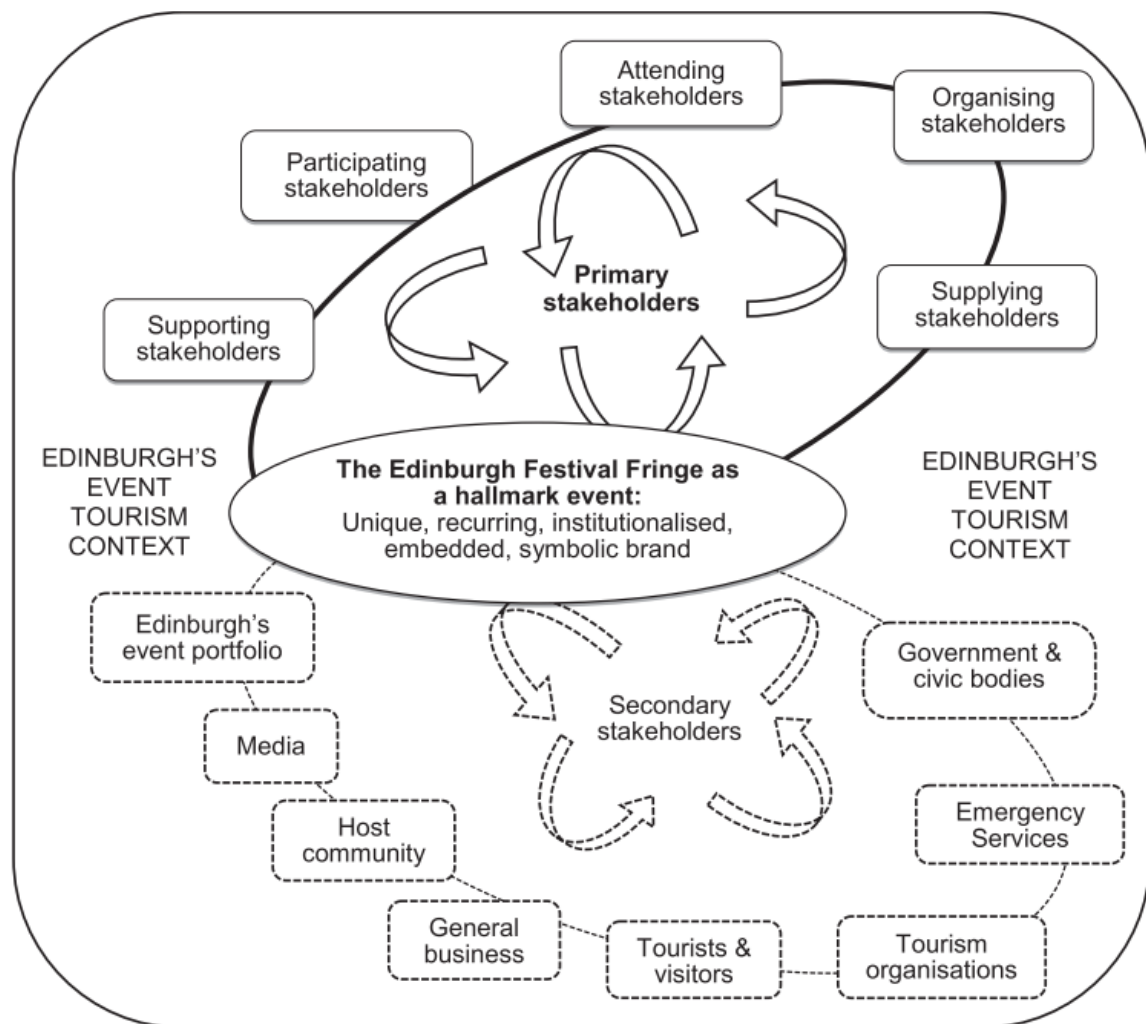
This is because stakeholders are critical to the success or failure of an event in terms of its longevity and are often the source of important innovation, given that not all successful ideas emanate from event management and significant potential for experience development exists within the stakeholder network when facilitated (Devine and Devine, 2012). Therefore, establishing who the stakeholders are and how they can be integrated in supporting roles toward event objectives, has been advocated by event theorists (Whitford, 2009) as well as those from the marketing and organisational perspectives (Best et al., 2018).

The challenge of mapping stakeholders such as is the practice in stakeholder management is in construing each uniquely in terms of roles and functions. Indeed, traditionally, the classification has often been predominated by Freeman's (1984) conceptual framework by roles such as customers, media, local community, environmentalists, suppliers, government, competitors and so on. This has tended to be a challenge given that events and organisations tend

to have unique contexts and bespoke management solutions beyond those easily framed (Andersson and Getz, 2008).

Todd et al. (2017) present a typology of stakeholders of a hallmark event and propose these as primary and secondary in nature with the primary group related in terms of categories or activity around the event. These categories include organising, participating, attending, supplying and supporting. Importantly, the study highlights the shifting and dynamic nature of such networks as well as the multiple roles adopted in the process of delivering the event experience. This concurs with Best et al. (2018) who noted a similar pattern in the implementation of projects by collaborating organisations.

Figure 3-8 Stakeholder typology of a hallmark event in the context of event tourism: The Edinburgh Festival Fringe (Todd et al., 2017)



It is clear from the figure above that a multiplicity of stakeholders are involved in events but who benefits from this participation? Research into stakeholder collaboration has been undertaken in the past (Jamal and Getz, 1995) and has highlighted the often fragmented, complex and disjointed nature of these relationships (Gerz, 2008; Todd et al., 2017). Stakeholder analysis has offered a suitable means through which researchers have been able to map the roles and relationships of event stakeholders so as to develop better knowledge of this dynamic and challenging management environment (Getz and Page, 2016)

This figure of stakeholders gathered through Todd et al.'s (2017) analysis is useful in presenting the potentiality of both B2C co-creation and C2C from a multi-stakeholder perspective. It is also useful in positioning the event experience within a differentiated and dynamic environment which offers much potential for value-co-creation (VCC) where a network perspective as opposed to a dyadic perspective of VCC is adopted (Best et al., 2018). In order to manifest such experience VCC to take place, particularly in the critical 'in-event' stage, focus is now placed on the opportunities presented to design facilitating experience-scapes (Benkendorff and Pearce, 2012).

3.4 Designing for the Multisensory

Interest in experience design within the domain of leisure and tourism has dramatically increased in recent years (Berridge, 2012a; Tussyadiah, 2014; 2017) and in no small part due to the impact of technology (Buhalis and Law, 2008). Significant academic interest is through a focus on human centred innovation (Hjalager, 2010; Carlsen et al., 2010) and the embracing of design thinking by firms seeking to bring vitality to their brand experiences (Tussyadiah, 2014; 2017). The proliferation of ICTs through mobile technology use in society and, as an extension, integrated into event and tourism experiences, has led to new levels of personalised technology-enhanced experiences being integrated. Often these aim to improve everyday visitor experience processes in extraordinary ways (Neuhofer et al., 2015a).

3.4.1 Impact of Experience Design

Events lend themselves to significant impact from ICTs regarding experience design due to their nature (Nordvall et al., 2014). Events, like ICTs, are somewhat conduits to or nodes of transit; connection points 'at scale' that through the myriad sociological and personal needs supported, offer experiences to transport people away from the everyday ordinary (Neuhofer et al., 2015a). Getz (2008a) highlights in more detail eleven functions of events which are in slight contrast to the 'genres' identified by Bowdin (2006), but knowledge of both elevates the opportunities for experience design concepts to grow through disciplinary acceptance (Berridge, 2012b).

Beard and Russ (2017) highlight the multiple layers of interpretation and understanding of event experiences. They see experience mapping as being critical to both experience design and experience evaluation. Their conceptualisation of interpretive focus includes relativity to the phasic, the thematic and the schematic and posits a need to further explore the synergies of these. In earlier conceptualisations of critical event design perspectives, Getz (2008a) highlights four categories of design elements within events including theme and programme design, setting, services and consumables. Berridge (2012a, p.281) goes further to stipulate the importance of key elements of these through "layout and décor, activities, theme, stimulation, gastronomy and so forth, suggesting that the role of design is integral to the event's success."

More recently, the addition of ICTs and the significance of smartphone applications has rated importantly in some event contexts. Particularly among the services delivering connection, immersion and socialisation as significant to event design (Nordvall et al., 2014).

Berridge (2012a, p.279) states that:

"any attempt to design an experience should be based on knowledge of how guests participate and become involved. In order for something to be created that can justifiably be called an experience..."

This builds on the perspectives of authors such as Getz (2008a) about his conclusion that more research into the nature of the planned event experience is fundamental to experiences meeting participant needs. To get the appropriate balance and a holistic experience design perspective, Morgan (2008) highlights the criticality of involving key stakeholders in the co-creation of experiences. In a later article, Berridge (2014a) pulls together several key models through which to explore event experiences including:

- Silvers (2004) six dimensions of event experience
- Getz (2012) planned event experiences and the liminal/liminoid zone
- Rossman and Schlatter, (2003) methodological tool highlighting: physical setting, interacting people, objects, rules, animation and relationships.
- O'Sullivan and Spangler's (1999) five key parameters; the stages, the actual, the needs being addressed, the role of the participant/other actors and the role/relationship with the provider.

Berridge's (2014b) paper presents an important review of the emerging disciplinary focus on managing events for optimal outcomes and presents the first review of an event type (Gran Fondo) which emerges as a powerful example of how sports events and sought participant experiences are combining. These create new and innovative experiences of sport bridging demand for unique, extraordinary and goal-oriented opportunities for 'achievement', offering renewal and a novel experience (Geus et al., 2016).

The roots of these ideas and a useful overview of experience design parameters are revealed through O'Sullivan and Spangler (1999) who present the following five key parameters of experience which underlie the event experience and its ability to meet the needs of participants. Critically, what is important in this earlier presentation of conceptualising the key parameters of experience, is the requirement to provide for a broader perspective within the key parameters. Berridge (2007, p.123) presents the 4 P's of 'experience marketing' which include "Parameters, People, Peripherals and PerInfoCom." This facilitates the categorisation of the quality and behaviours of actors (not always human), in co-creation contexts, in a more technological age of experience enhancement (Neuhofer et al., 2013b).

Table 3-4 The 5 Key Parameters of Experience. (Adapted from O’Sullivan and Spangler, 1999, p.99)

The Five Key Parameters of Experience	Description
Stages of the experience	Events or feelings that occur prior, during, and after the experience.
The actual experience	Factors or variables within the experience that influence participation and shape outcomes.
Needs being addressed through the experience	The inner or psychic needs that give rise to the need or desire to participate in an experience.
Role of the participant and other people involved in the experience	The impact that the personal qualities, behaviour and expectations of both the participant and other people involved within the experience play in the overall outcome.
Role and relationship with the provider of the experience	The ability and willingness of the provider to customise, control and coordinate aspects of the experience.

More recent conceptualisations of experience design as a critical facet of the delivery of extraordinary and memorable experiences is suggested by Getz and Page (2016) who posit the importance of experience as a key theme relating events in travel and tourism contexts. Given the importance of tourism events, the topic of ‘experience design thinking’ will be critical to providing highly targeted and ‘custom design’ event experiences which will rely on better knowledge of the event in all its dimensions (as well as by setting, systems and type of event).

Borrowing further from the related field of Tourism, Tussyadiah (2014) presents a thorough overview of the nature of experience design and implies four fundamental experience design approaches including integrative research design, participatory design, multi-disciplinarity and naturalistic enquiry; the latter offering real-world experimentation and observation as a means of advancement. As a critical discourse within the design of experience, Tussyadiah (2017a) presents human-centeredness, iterative design and finally a more holistic experience conceptualisation as both critical and differentiating regarding approach (Pettersson and Getz, 2009; Ziakas and Boukas, 2014).

When considering the centrality of human experience, in an evolving experience-landscape which is often prolifically immersed in ICTs, Verbeek's (2015, p. 31) position presents the mediation of technology as being part of the human condition and as such gives impetus to how it should take precedence as having "a central place in the conceptual framework that implicitly and explicitly guides design activities." Illuminating this from an event perspective, Berridge (2014b) highlights the objects we interact with are a critical element and the meaning derived is from our understanding of their application, within experience journeys.

As recently as 2017, Beard and Russ (2017) have highlighted the contested nature of the human experience within an event context. This is happening as the multiple, and varied dimensions of the event experience gain greater attention from both an evaluation and experience design perspective (Getz and Page, 2016). Brown (2014) goes further to suggest that there is a paradigmatic shift moving perspectives from Event Management predominance to Event Design dominance given the importance of the central construct of event experience in the overall consumption process (Getz, 2015).

Prior to looking in more detail at the event experience from the perspective of meaning, memorability and satisfaction (Section 2.6), a focus is now placed on the foundational logic which has underpinned the increased supply of event experiences. This has underpinned the application of management perspectives of what has been termed the experience economy (Pine and Gilmore, 1998), which has caused a significant evolution of the understanding of event experience dimensions and focused the foundational principles of a more service dominant perspective of planned events (Getz and Page, 2016).

3.4.2 Event Experience and The Experience Economy

This multi-phasic and subjective viewing of the needs and roles of all involved in creating and consuming the event experience offers an excellent staging post through which to assess and analyse the granular elements of event experiences. This, particularly when assessed in line with the seminal work of Pine and Gilmore (1998), which relates the notion of the 'experience realm'. When understood as part of their contribution, 'the experience economy', a further enabling

perspective is established for deeper exploration of the event experience through its four dimensions of experience involvement. These are presented as passive, active, immersion and absorption (see figure 3.4).

According to Pine and Gilmore (1998, p.98), “an experience is not an amorphous construct, it is as real an offering as any service, good, or commodity.” This foundational perspective has been grasped and grown within experience design research and as such an experience can be further explored at a subjective level through the types of experience sought and through the motivations of the seeker. According to Berridge (2014a, p.280), “an experience will be sought and received as being either one of, or a combination of, educational, escapist, aesthetic or entertaining.” This advances the perspective adopted by Holbrook and Hirschmann (1982) who focused more on the symbolic meaning, aesthetic interplay and hedonic responses of participants as primarily being the critical sought outcomes of experience.

As was eluded to in section 3.2.4 where key perspectives and models influencing the event experience were introduced, the interplay of levels of participation and levels of absorption or immersion create the realms of experience as described by Pine and Gilmore (1998). The developing of experiences which successfully harness the dimensions previously discussed are shown by research to create satisfaction for consumers and enhance value in the experience encounter (Berridge, 2012a).

Interestingly, the work of Korn and Pine (2011) develops on the existing experience economy conception by providing a framework which is fit for the exploration of digital experiences. It offers this through assessing the value-adding potential of these to event experiences (Van Winkle et al., 2016). What is lacking in the application of Korn and Pine’s Typology of Human Capability (THC) is a means of deeper exploration of the motivations below the surface. These are crucial in examining the experience outcomes sought and uses, and gratifications preferred, through engagement with digital elements of the event experience. Van Winkle et al. (2016) increase the relativity of the theory for event experience assessment by bringing the importance of context as every day and context at play within the THC.

This is useful in providing a technology adoption perspective of assessing experience but as they further posit:

“the Korn and Pine (2011) typology, like many frameworks in the technology adoption literature, presents digital experiences as positive opportunities for growth. The THC does not address the negative experiences, or devaluing of an experience, that digital offerings may create for consumers (Van Winkle et al., 2016, p.215).”

This opening up of experiences to a breadth of sought outcomes and potentialities delivered through these dimensions of experience involvement is key to understanding the development of successful experience design methodologies (Berridge, 2009). ICTs are one additional and exponential conduit for enhancing certain experience involvement but only where careful consideration is given to the connection sought and the stage, needs and roles participants fulfil in their evolving event experience, particularly in relation to seeking (dis)connection (Dickinson et al., 2016; Neuhofer and Ladkin, 2017).

3.4.3 Technological Impact on Experience Design

Undoubtedly, event participants are more connected to the event experience through social media and ICTs (Hudson and Hudson, 2013; Hutchins, 2016). This added layer of connection has presented significant challenges for event management teams as they struggle to meet the experience expectations of users whose personal and social computing pursuits are packaged and delivered in ever more multi-touch (Inversini et al., 2016), high touch and high-tech ways (Neuhofer et al., 2013b). An event’s presence on multiple social platforms is fast becoming the expectation of a discerning event spectator and a benchmark for events marketing and engagement, across the multi-phasic cycle of event experiences (Hudson and Hudson, 2013).

Authors such as Wang (2012); Lalicic (2015); Tussyadiah (2015); Bolan (2016); Van Winkle (2016) have long understood the importance of designing experiences which balance the expectations of consumers use of mobile technology within a suitable experience offer. Going beyond simply supporting engagement through mobile devices, authors such as Hudson and Hudson

(2013, p.221) propose that “social media has an extremely important role to play in the future of marketing of events and festivals.” Apart from the obvious marketing and sales potential of collective eyes on event content served through touch-screen architectures, there is the added potential of value-adding engagement. This potentiality of supporting the event experience through ICTs has been previously identified (Quinn, 2013; Luxford and Dickinson, 2015; Getz and Page, 2016; Inversini and Williams, 2017).

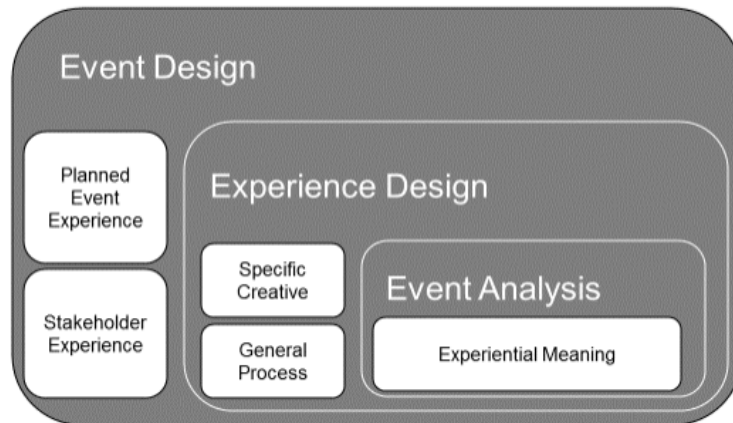
3.4.4 Paradigmatic Shifts in Event Experience Design

In experience design terms, Tussaydiah, (2017a, p.184) identifies that “using personal devices also allows behavioral design approaches to address experiences with a high level of granularity, making it possible... to target behaviours deeper into the micro-moments in situated tourism experiences.” This is a critical warrant for further examination of the digital event experience in the context of experience design discourse. The evident gaps in the literature will be presented further in the final summary of this chapter.

A further framework for assessing ICTs impact on the event experience is through the use of the Experience Design Framework (see Figure 3.9 from Berridge 2012a, p.284) which he suggests requires that the discipline apply a paradigmatic shift towards encompassing experience design:

“by suggesting that what we call event management needs a paradigm shift in order to place event design as the central core element of practice where design awareness should resonate through every decision stage of the event planning and management process (Berridge, 2012a, p.284).”

Figure 3-9 Experience Design Framework (Adapted from Berridge, 2012a, p.284)



Further evidence of this need for paradigmatic change in how event experiences and ICTs are viewed, is reflected in the assessment of Brown and Hutton (2013) who in their evaluation of real-time data informing experience conclude that:

“clearly, audiences engage with the experiences created and staged for them in many new and often unusual ways, but it is an understanding of the audience’s physiological and psychological engagement with the experience that will reveal insights into how events can be better designed (Brown and Hutton, 2013, p. 53).”

Through the application of such event design principles around the stages and specifics of an experience, event teams will be better placed to meet event attendee’s expectations through better management and deeper analysis (Horbel et al., 2016).

With infrastructure around many large-scale events becoming much more connected through ICTs and other smart computing technologies (Bustard et al., 2017), there is more data and analytics available for real-time intelligent decisions (Sinarta and Buhalis, 2017; Buhalis and Leung, 2018). This is more prescient in this period of ever more ubiquitous connectivity and access to the internet (Gretzel et al., 2015a). In advocating this viewpoint, it is time to further assess the literature about the various stages of event experience and where literature are shedding new light on opportunities for the development of the event experience, particularly in light of the use of ICTs (Martin and Cazarre, 2016).

3.5 Event Experience –Memorability, Meaning and Satisfaction

Event experiences and the meaning attached to these experiences are arguably the core and central phenomenon through which to study events (Getz, 2005; Berridge, 2012a; Getz and Page, 2016). The complexity of event experiences in relation to their subjectivity and unfolding multi-phased and multi-outcome nature, make them a challenge to explore but critical to future research (Quinn, 2013; Geus et al., 2016). Critically, event experiences are the conduit to derived meaning for participants, stakeholders and communities and as such impact immensely on the success of present and future planned events (Morgan, 2007a). Ziakas and Boukas (2013, p.4) offer that meanings in events “include all experiences, feelings and thoughts as well as the subsequent sense of salience that people obtain from their participation in, or attendance at, event-based activities.” Thus, an assessment of the subjective, nuanced and multi-dimensional nature and meaning of experience is merited (Benckendorff and Pearce, 2012).

3.5.1 The Subjective Nature of Event Experiences

The multitude of event experiences is wide-ranging and as such, offers spectators and participants a variety of emotional outcomes to explore including the fun and revelry of festivals, to solemnity such as pilgrimages. This, as well as motivational, inspirational and learning experiences derived at conferences (Ziakas and Boukas, 2013). In their seminal work on how leisure and event experiences can be conceptualised, Mannell and Iso Ahola (1987) first presented the critical three dimensions of event experiences - the cognitive (state of awareness, understanding, perception), conative (actions and behaviours) and affective (emotions, attitudes and feelings). As has been explored, these three dimensions have provided an important lens through which behaviour, motivation, meaning and satisfaction have been understood in the study of events. Due to the significant and increasing changes to experience influenced by ICTs, continued theoretical exploration of the phenomenological nature of event experiences is necessary. An important undertaking in seeking

understanding of what makes experiences memorable and transforming (Getz and Page, 2016).

In acknowledging the challenges of this pursuit of new knowledge, Pettersson and Getz (2009) argue experiences cannot be fully designed due to their nature:

“as they are both personal (i.e. psychological) constructs that vary with the individual, as well as being social and cultural constructs related to influences on the individual and the (often) social nature of events (Pettersson and Getz, 2009, p.310).”

This complexity of individual, social, cultural, situational and collective psychology impacting both intrinsically and extrinsically on the participant makes meaning a challenging, multidimensional construct to evaluate (Berridge, 2007).

Some success in exploring the event experience in the context of trying to capture an understanding of meaning has been achieved by Morgan (2007a). His adaptation and development of Kapferer's (1998) brand identity prism has assisted in providing a framework to acknowledge how meaning is situated within the 'prism of event experience' (see figure 7 in section 2.3.4). The prism offers a means of deconstructing event experiences and analysing their core influences (Benckendorff and Pearce, 2012). As a comparator and regarding specifics of experience, Geus et al. (2016, p.280) suggest that “the main elements that need to be considered are social interaction, involvement, the cognitive, conative and emotional reactions to experience stimuli and resulting satisfaction and memory.”

To better understand the nature of how events are managed and the discourse around the experience of meaning, it is important to explore academic insights into meaning from managerial perspectives (Berridge, 2007).

3.5.2 Managing for Event Meaning

From a managerial perspective, Morgan's (2007a) work develops on the work of Getz (1997), Goldblatt (2002) and others in envisioning Pine and Gilmore's (1999) delivery of a memorable experience. This is a critical experience outcome which can lead to competitive advantage (Buhalis, 2000). Special events are now deployed as a means of competitive advantage and have been recognised as a smart tourism event strategy also (Koo et al., 2016). Morgan (2007a) explores

managerial elements, consumer experience elements and subsequently, how these are evaluated by the consumer to seek to understand the event experience more holistically. Morgan's (2008, p.85) contribution on event experiences which he conceptualised through literature review, provides the basis for proposing an integrated model, known as the 'prism of event experience' (See Figure 3.5). This model leverages Kapferer's (1998) prism of brand identity which is a seminal work from the marketing and communications literature. The model combines physical, psychological, consumer and company elements and presents them in such a way as to represent the event experience in an elegant multi-dimensional model with great impact (Geus et al., 2016).

At an individual level, meaning is contrived through the interplay of the prior experience, cultural values as well as being influenced by sociality. Arguably meaning is therefore re-created at an individual level and re-learned through immersion in the event's design, location, processes and people (Morgan, 2008). Within this space, where participation is integrated within the mind at a key juncture of the event experience journey, it is expected that meaning is derived, and new memories, interests and development occurs in the personal realm. Critically, this meaning is mediated by internal influences and amplified by external factors (Ziakas, and Boukas, 2013).

3.5.3 Events and the Symbolic

Significant among these external factors in attracting participation is the symbolic meaning of certain events to participants (Morgan, 2008). This meaning is a core value and a key participatory motivator for many. It can also be a potential barrier to the more casual participants and as such critical to current and future event success (Scott and Shafer, 2001). This identification with the values and symbolism which an event projects (Getz and Page, 2016), wherever on the familiarity spectrum the contact exists, is important to factor into the overall impact and outcomes sought of the event experience (Kinnunen and Haahti, 2015). This personally ascribed meaning effects across the cognitive, conative and affective dimensions as Mannell and Klieber argued. It is achieved through aligning to the experience outcomes sought at an individual level and is key to the value and satisfaction that can be derived from participation (Patterson and Getz, 2013).

Events can be understood to have both collective and individual meaning. Collective meaning is derived from the social constructs which form around the event type as it is perceived by various engaging social groups and individuals (Lee et al., 2016). This personal attribution derived from perceiving event symbolism is a key construct in evaluating, assessing and developing event experiences. It has powerful and far-reaching impacts on determining the participatory outcomes of event participants (Nordvall et al., 2014). Some differentiation exists across the spectrum of the event typology (Getz, 2008a) and as such, requires delineation regarding focusing the literature.

The importance of leveraging attachment through understanding how destinations and events gain symbolic meaning across functional and emotional contexts and through their impact has been the focus of study across disciplines and also within sports events (Chen and Funk, 2010). Given the focus of this study as outlined in the research objectives at section 1.3, the ability to coordinate the need to assess “the provision of event sports tourism opportunities” from both participant and spectator perspectives is an important distinction to make (Weed and Bull, 2009. p.80).

This focus is also congruent with research aimed at deepening the event experience where “the event has symbolic significance and meaning that the visitor seeks to be associated with” (Morgan, 2007a, p.117). Indeed, as Ziakas and Boukas (2014, p.58) posit in determining appropriate means of studying meaning:

“phenomenology can be used to analyze how symbolic meanings are perceived and interpreted by event attendees as a result of their lived experiences and interaction with an event environment and, in turn, what are the effects on social conditions.”

Given the varied and somewhat ambiguous contexts at play in the experience of meaning and given the focus of this study, attention is now directed at sports experience and the differing outcomes sought by fans and participants.

3.5.4 Event Experiences as Serious Leisure.

In the context of sports events, 'serious leisure' as a concept, was introduced by Stebbins (1992, p.3), which he presented as:

“the systematic pursuit of an amateur, hobbyist, or volunteer core activity that is highly substantial, interesting, and fulfilling and where, in the typical case, participants find a career in acquiring and expressing a combination of its special skills, knowledge, and experiences.”

Events attract varying degrees of participatory engagement, and this is arguably influenced by a range of physiological, sociological, psychological and economic factors (Getz and Page, 2016). Cognisant of this multitude of influences and their undeniable impact on participation in or at events, we focus on the impact of derived meaning experienced by participants through their identifying and via their engaging with an event's ethos, community, setting, people and programme (Quinn, 2013). A core outcome of this engagement is broadly accepted as participation as a means of seeking to attain a unique, memorable and satisfying experience (Getz and Page, 2016)

In assessing the six characteristics of serious leisure defined by (Stebbins, 1992), we see overlap regarding context with many event experiences, due to the nature of commitment required as well as time and focus to continue to participate. In distinguishing serious leisure from casual leisure, the following are designated as differentiating each. A requirement for perseverance at the activity; the development path or career of a long-term nature; significant effort personally in the pursuit; achievement of durable and special benefits; an ethos and social world that is unique; and identity tied to the pursuit. It is logical therefore, and noted in a number of studies, that sports events which lean toward the serious leisure paradigm are more likely to provide participants with an enhanced social identity, through which meaning and motivation is derived (Shipway and Jones, 2007; Getz and McConnell, 2011; Lamont and McKay, 2012; Miller, 2012). Although 'serious leisure' was formalised with participation as a critical delineation, it is important to highlight that due to the pervasive connectivity and interactivity of many event experiences; fans are now becoming ever more serious about their participation too (Ziakas and Costa, 2012).

3.5.5 Event Fans – From Fun to Serious

Establishing the types of fans who participate in event experience is an important and integral step in better understanding the specific needs of participant groups (Kruger and Saayman, 2012). Bouchet et al. (2011) provide a useful fan typology which suggests sport event fans categorised as ‘opportunist’, ‘aesthete’, ‘supporter’ and ‘interactive’ which relates to ‘in-event’ behaviour. This encapsulates the range of orientations from participation and support as tacit co-producers of the experience to those less engaged with the event specifics and more with the relational and social experience (Getz and Page, 2016). Beyond events and a useful perspective related to this and around participants of experience, is the typology developed by McKercher (2002), This typology proposes that seekers of experience pursue different depths of experience from shallow to deep which is further combined with whether the spectacle itself is of importance for the destination visit. Knowledge of these variances in depth and the focal nature of the event is an important consideration when gaining a better understanding of potential to co-create experience elements (Rihova, 2013; 2018).

There is some potential for development around the implications of serious leisure as a participant and also serious spectatorship in event contexts (Frew and McGillivray, 2008). Frew and McGillivray (2008, p.196) highlight that it is not only actual sports participation that can have a ‘serious’ unfolding in experience terms. According to their study of fan experiences at the 2006 World Cup in Germany:

“The ‘fan’ becomes his/her own producer locked by a desire to be seen, noticed, accepted and valued so as to assume the performative position. The most effective experiences are designed to place the consumer (the ‘experientialist’) as a key performer, engaging his/her senses (especially emotions) to create enchanting experiences that benefit producer and consumer alike.”

This perspective is confirmed by Getz and Page (2016) and related as the theme of ‘performative leisure’. Thus, when assessing the meaning - social, cultural or symbolic, attributed to a spectator or participant’s event experience, there is significant scope to further explore event dramaturgy in each context. This can

be achieved through subjective and phenomenological enquiry to explore “the extraction of shared meanings enabled by the projection and/or performance of symbolic representations in an event’s activities” (Ziakas and Costa, 2012, p. 32).

According to Geus et al. (2016), event experiences as processes are multiphase and multi-outcome, and as such the event experience itself remains a black box. They direct further exploration with critical components that require consideration being: involvement, social interaction, emotional reactions, the cognitive and conative. These they argue are required to experience stimuli and any resulting memory and satisfaction. This review of the literature will now proceed to the factors of meaning, memorability and satisfaction within the event experience.

3.5.6 Framing for Meaning - Event Experience Dimensions

Discourse focused on redressing the study of events from perspectives of experience, as opposed to impact and evaluation, have often been focused on the importance of better understanding the social worlds, contexts and the meaning-making, which is associated with participation (Getz, 2007; Holloway et al., 2010; Ziakas and Boukas, 2014; Beard and Russell, 2017). In digital event contexts, there is a deeper need to examine the perspectives of how event experiences are impacted by ICTs, particularly given the sense of mediatization of experiences (Hutchins, 2016) and the potential of experience co-destruction as well as co-creation (Neuhofer, 2016a). This is necessary to gain an understanding of how meaning has been ascribed by notable authors related to the event experience.

In relation to meaning ascribed to their experiences by participants, Berridge (2014b) focuses an exploratory examination of participant experiences at ‘Gran Fondo’ cycling events which have become significantly popular and accessible as a participant sporting experience. His work, through participant observation, aims to understand key characteristics of the participant experience. The aim is to contextualise experiences within a management framework facilitating better identification of event components through experience models. The work builds on earlier conceptualisations by Berridge (2007) and is part of a larger ‘experiential ethnography’ which relates the development of event experiences

through key concepts such as the experience economy (Pine and Gilmore, 1998). The adoption of experience development as an innovation tool co-creating with customers (Pralhad and Ramaswamy, 2004) and the need for deeper experiential analysis (Horbel et al., 2016) is also posited. Finally, means of evaluation of events (Berridge, 2007; Gilhepsy and Harris, 2010) to encourage specific experience outcomes is proposed (Getz, 2012).

The findings highlight critical focus must be placed on the dimensions of experience including space, time, acts, object, actors, goals and feelings (Berridge, 2014b). According to Berridge's observations (2012a), events are multiphase and multivariate which although unsurprising in nature, is a critical perspective in assisting event managers toward meeting participant expectations through better planning and delivery. Berridge (2014a, p.86) suggests:

“further discussions should be developed around theories of social capital and identity to explore the meanings people attribute to participate in these events. This, in turn, might have implications for innovative management features.”

Thus, unpacking the phenomenon of event experience using new approaches is advocated through advancing models and techniques of experience management as fundamental to the development of the discipline (Ziakas and Boukas, 2014).

Critical to the pursuit of new knowledge is an understanding of what is experienced. Perspective of the cognitive, conative and affective level through:

“participation and involvement; a state of being physically, mentally, socially, spiritually or emotionally involved; a change in knowledge, skill, memory or emotion; a conscious perception of having intentionally encountered, gone to or lived through an activity or event; an effort that addresses a psychological or inner need” (O’Sullivan and Spangler 1999, p.23).

These components of experience and changes in state are further explored regarding memorability and satisfaction in the following section.

3.5.7 Event Experience - Memorability and Satisfaction

As highlighted earlier, the seminal work of Morgan (2007a) in assessing the event experience, confirmed the relevance of the prism of event experience through the

interrogation of data to uncover the identification by participants of each major element. More interestingly, through closer analysis, the author assessed that the overall experience was interpreted from a broader perspective by participants than solely through the individual elements identified, leading to the finding that participant “evaluation was interpretative, subjective and affective, in response to the whole event (Morgan, 2008, p.88).” This is critical to the study of event experiences and is further evidence of the need to derive holistic insights of event experience, as a means of uncovering the impacts on individual factors which in summary, affect the overall experience (Getz, 2012).

Morgan sees this organisational detail of events as being a critical success factor for event experience facilitation, organised to enable participants to move as freely as possible and explore. These findings underline the provision of spaces for social interaction and personal experiences as critical to success. Interestingly, Morgan (2008, p.91) notes that:

“Satisfaction is not derived from a cognitive evaluation of attributes as much as from the overall narrative of the experience. Discomfort, difficulties and sacrifices can be accepted and may even enhance the sense of personal achievement.”

When considering these spaces for social interaction, the digital space, particularly through social media, must also be considered as critical to engagement and satisfaction (Hudson and Hudson, 2013). The analysis of how we understand satisfaction from event experiences and its impact on participants is significant and escalating. This is particularly so, given the extension of experience engagement, facilitated through ICTs (Neuhofer et al., 2013a; 2015a; Buhalis and Foerste, 2015).

3.5.8 Unlocking Satisfaction Through the Extraordinary and Meaningful

Berridge (2012b), in his study of event experience, leveraged questions of an open-ended nature and sought out authentic understanding of the experiences of guests. Some closed-ended questions were also delivered to seek clarity around guest perceptions of their physiological, psychological and emotional states. Berridge’s (2012b, p.21) work links to the wider study of events through its seeking to further unpack the event experience and offers that:

“when designing and creating themed events, event organizers need to be more conversant with the nature and complexity of experience, with the tools to design and create that experience, through awareness of the myriad factors that influence experience, and, significantly, through the use of meaningful components in the themed experience that can enhance it out of the ordinary and differentiate it from other similar offerings”.

This is critical for advancing the goal of increasing satisfaction and creating memorability. Berridge’s contribution in this and other papers (Berridge, 2012a), is by focusing on the nature of the event and the single case study approach within the event type, combined with a relatively small sample size (five participants), make the findings very subjective and less generalisable. Nevertheless, they break new ground in the study of event experience through methodological innovation within the discipline (Carlsen et al., 2010).

Continuing the focus of unlocking event experience dimensions in the pursuit of enhanced experience outcomes (Shipway et al., 2016), focus is now required on the emerging and important discourse relating to co-creation of the event experience and its importance in providing meaningful and memorable outcomes (Holst Kjaer, 2011).

3.6 Technologies and ICTs Impacting Events

Technology and ICTs more generally, are almost completely embedded in our daily experiences (Buhalis and Foerste, 2015; Tussyadiah, 2017a). Through adaptive and responsive smartphones and apps, we have access to ever more personalised digital experiences (Wang et al., 2012; Neuhofer et al., 2016b). Although there is limited research on the impacts of ICTs and technology on experience personalisation, as evidenced by Neuhofer et al., (2015a), it is clearly an area of significant importance given the growing body of evidence of technology’s impact on experiences, and its behaviour changing nature in event and festival contexts (Luxford and Dickinson 2015; Inversini et al., 2016; Hutchins, 2016).

It is critical, therefore, that event studies more widely accommodate more discourse around ICTs given the growing dependency and integrated nature of their use in daily life by what Finkel et al. (2013) citing Solis (2012) contend as

the inter-demographic known as 'Generation-C' - the connected customer. Building on this, Van Winkle et al. (2016, p.204), who discuss how "given the rise in popularity of mobile devices and their integration into the different domains of our lives it seems reasonable to expect that digital experiences are sought by segments of the festival audience (Van Winkle et al., 2016, p.204)." It is with this warrant that further exploration of the proliferation of ICTs and their impact on experience is further unpacked in the following section.

3.6.1 Connection, Commerce and Creativity – Technologies Driving Forces

As was clear in the earlier review of event experiences and their anthropological roots, the nature of humans is toward connectedness at varying levels but driven by the seeking of some transformative element (Szokolczai, 2009). This fundamental pursuit is still inherent in the DNA of events and as such:

"this interaction will remain a crucial component of the events industry, as festivals and celebration dating back thousands of years have always involved humans, sometimes traveling over great distances, to interact culturally, historically and religiously or on a business interface, and this will continue to do so, incorporating technological advances, the rationale being that technology cannot yet allow for total connectivity and immersion and that integral face-to-face human reaction, co-creation and co-production are crucial elements of the event experience (Sadd, 2014, p.216)."

In focusing on the pillars of successful Event Management, Goldblatt (2002) presents time, finance, technology and human resources as the critical dimensions from a management perspective. Goldblatt's perspective on technology as being a critical delineator regarding academic focus and as an opportunity for success is a welcome detour within the general discourse of Event Studies. Its addition and adoption in the wider discourse of domain-specific literature, is surprisingly less obvious given technology's impact on the related discipline of tourism (Buhalis and Law, 2008), where it has been heavily researched across a myriad of sub-themes, including personal technology (Buhalis and Foerste, 2015), assistive technology (Tussyadiah et al., 2017b), AI (Buhalis and Leung, 2018) and near field communication (Pesonen and Horster, 2012)

This adoption and use of technology to enhance experience has several streams of literature across the fields of Communication, Computing, Marketing and Management (Wang et al., 2014b). Indeed, several focused theories comprise some of the largest contributions to the wider understanding of ICT adoption (Korn and Pine, 2011; Neuhofer et al., 2014). Mindful of the opportunities to contribute more to the Events Studies field, these include several applications of theories of technology acceptance. Underpinning many of these studies were early works from social psychology domains such as that of Fishbein and Ajzen's (1975), whose theory of reasoned action (TRA) and the subsequent theory of planned behaviour offered by Ajzen (1991). Later studies permeated into the fields of Tourism and Events, which originated from Information Systems perspectives. These include the seminal work of Davis (1989) in presenting The Technology Acceptance Model (TAM) and its related and updated unified theory of acceptance and use of technology (UTAUT) presented by Venkatesh et al., (2003).

More recently within Event Studies, there has been a number of studies which have integrated technology perspectives, such as the Typology of Human Capability (THC), created by Korn and Pine (2011). This has been applied in the context of seeking to understand and categorise the behaviours of fans through their sensing, linking, navigating, organising and performing via mobile technology at events and festivals (Inversini et al., 2016; Van Winkle et al., 2016). These studies provide significant and useful perspectives about performance of tasks through mobile but critically and regarding further contribution, could be leveraged further in assessing the perspectives of 'what' was being sought and why (Wang et al., 2014a). Neuhofer et al. (2016b) go beyond to present the evolving perspectives of ICT use as an innovation catalyst through crowdsourcing, co-producing, co-creating and collaboratively consuming through interactive consumption experiences (Morgan et al., 2010)

To this end, there have been some useful theories applied in the analysis of the needs of users of ICTs, particularly given the increase in penetration of mobile/smartphone use in everyday life (Wang et al., 2012). These uses are escalating as are the means by which these context-aware mediators can provide

access to information and experience elements anywhere and at any time (Xiang and Gretzel, 2010).

One such study sought to extend the TAM model with a communications theory developed by Katz et al., (1974) called Uses and Gratifications Theory (U & G). This theory focuses more on 'why' and 'how' people use media to fulfil their ambitions and needs by exploring their motives. U & G theory assumes a purposive use perspective and holds that satisfaction is sought and derived from media to meet a variety of needs in space and time (Joo and Sang, 2013).

U & G Theory has been applied beyond media to multimedia and technologies also (Park, 2010). In more recent contexts, it has provided a significant perspective across a wide range of experience settings – from visitor experiences at museums (Ntamkarelou et al., 2017) to a study on the psychological factors at play in addiction to mobile gaming (Chen and Leung, 2016). Rubin et al. (1994, p.420) present five key assumptions through which U & G is grounded:

“(1) media selection and use is goal-directed, purposive, and motivated; (2) people take the initiative in selecting and using communication vehicles to satisfy felt needs or desires; (3) a host of social and psychological factors mediate people’s communication behavior; (4) media compete with other forms of communication for selection, attention, and use to gratify our needs or wants; and (5) people are typically more influential than the media in the relationship, but not always.”

Adopting this more holistic perspective in assessing consumer uses of ICTs in experience contexts, ensures a much clearer appreciation of the event experience phenomenon. This is best explored through its evolving and integrated digital contexts of enhancement (Luxford and Dickinson, 2015), performative leisure perspectives (Getz and Page, 2016) and the rising need for experiences facilitating technology disconnection (Neuhofer and Ladkin, 2017).

3.6.2 Types of Event Technology Leveraging Mobile

The proliferation of ICTs extends across many experience contexts and is significant in its impact on the event experience (Robertson et al., 2015). In relation to the types of ICTs employed, these can be roughly delineated as

being customer centric applications or managerial ones (Boshnakova, & Goldblatt, 2016). Customer-centric applications aim to deliver important event supports such that enable visitor interactions on-site through identification, context awareness and informational support as well as offering some potential for co-creation. “Managerial applications are usually concerned with visitors’ management in the preparation phase, event organization, on-site applications and analysis phase” (Stankov et al., 2018, p.245).

In particular, the use of smartphones has seen a significant increase in the proliferation of experience interactions and integrations with physical and digital components of the event experience-scape (Benkendorff and Pearce, 2012; Narbona and Arasa, 2016). According to Robertson and Brown (2014), who apply an operational design view of festivals and events futures, they see technology and social media as transforming the event/festival experience, as well as the overall management and control of events. They propose a convergence of operations and community in this manner will not reduce professionalism in design, safety or leadership but suggest that the aggregation of data and discourse relating to the experience will amplify community cocreation.

Smartphone apps are a technology which have been impacting on events in recent years (Bolan, 2014). Apps offer integration to service offerings around an event ecosystem and if created as a bespoke event app, may feed from both internal sources (managed event content) as well as external sources such as through API’s (Luxford and Dickinson, 2015). Several other apps such as maps, transport, social media and ticketing apps owned by external interests may still impact on the event experience (Roberston et al 2015) but this study will focus on specific and bespoke event apps.

Apps are generally focused on ease of use, convenience and critical support in particular context dependent times through a mobile interface (Dickinson et al., 2014; Sabic and Zanker, 2015; Tussyadiah, 2016). According to Luxford and Dickinson (2015, p.33), event apps provide event enhancement and “are potentially influential at all stages of the event experience, including before, during and after” by offering information, regular updates, location services for context, personalisation and interactivity with the event and its

community (Van Winkle et al., 2016). Other technologies in the event experience-scape are now beginning to link to apps and to provide ever more unique experience encounters (Robertson et al., 2015).

Mobile ticketing and near field communications are two examples of how events are leveraging the power of smartphone technology to deliver critical experience interactions (Luxford and Dickinson, 2015). The use of such technology is not always a panacea for success as evidenced by Carlsen et al. (2010), who cited ICT system failure in ticket sales as a key reason for the failure of one of three festivals in their research.

3.6.3 Customer Centric Technology and ICT in the Event Context

Several technologies are often utilised in terms of providing more customer-centric experiences at events. Some of the most prominent in delivering such experiences include technology such as radio frequency identification (RFID), Global Positioning System (GPS), bluetooth and smartphone applications (Apps) and often work collectively to provide value in a variety of contexts (Luxford and Dickinson, 2015; van Winkle et al., 2016).

Literature in Event Studies has only focused narrowly on technology and there is a significant gap in research on event technologies as highlighted by Narbona and Arosa (2016), Luxford and Dickinson (2014) and Williams and Inversini (2016). Smartphone apps have gained some focus in recent years, predominantly due to the spillover nature of smartphones and their utilities in a variety of contexts which support people in the delivery of critical and real-time information (Wang et al., 2012).

3.6.4 Event Technology Facilitating Event Management

As was previously noted, event technology has been related as customer-centric or managerial in terms of differentiation (Boshnakova, & Goldblatt, 2016). This delineation is a little limiting in that customer centric ICTs such as event apps are often producing data in the process of supporting customer interactions and as such can offer much in terms of managerial insight (Brown et al., 2014). Predominantly though, the majority of

managerial solutions employed are those which facilitate the planning and implementation of events, supporting ticket sales, scheduling, customer relationship management and managing stakeholders (Stankov et al., 2018).

There have been a limited number of studies focused on the potential of more holistic approaches to deploying and managing ICT as a means of improving event outcomes for participants (Brown et al., 2014). This is certainly an area which offers a significant opportunity for event innovation through better usage of smart technologies in event contexts (Gymothy and Larson, 2015). According to Remnev et al. (2015, p.2) “innovative event technologies are closely linked with technologies for Smart Cities.” The literature review has highlighted a significant lack of research focused on the digital event experience and as events are a key driver of tourism, this is further warrant for the exploration of event experiences nested in Smart Tourism Destination contexts where they are cited as being critical to destination competitiveness (Koo et al., 2016).

3.6.5 ICTs and the Evolving Event Experience

In an event experience context, the last two decades of the development of ICT has built significantly on the world-wide web’s information sharing culture (Buhalis and O’Connor, 2005). As Getz and Page (2015) posit, it’s difficult to keep up with ICT advances but the role of these tools of communication have an ever-increasing role in not only the communications mix but also in the co-creation of the multi-phasic event experience.

Facilitated through expanding telecommunications networks, and through the ubiquity of personal (smartphone) or wearable computing as well as the Internet of Things (IoT) and cloud computing, it is fair to assume these are impacting on a rising number of experiences. They do so as facilitators and enhancements (augmented reality - AR), or wholly new experiences such as through virtual reality (VR) (Boes, Buhalis and Inversini, 2015; Luxford and Dickinson, 2015; Tussyadiah et al., 2018). There is significant cultural and societal discourse around what many see as the advancing ‘mediatization’ of experiences augmented through the digital realm, particularly in sport (Hutchins, 2016, p.422).

This reliance and dependence on social media and its impact on thinking as a 'semi-independent institution in society' (Hjarvard, 2013, p.153) is impactful. It has seeped through and integrated into the everyday lived experience and is one which has ramifications regardless of the position for or against, of people involved (Neuhofer, 2017).

There is little doubt that the evolution and advances of technology are ever more embedded in the cultural realm (Boes et al., 2015) and a review of relevant literature relating to ICTs impacting experience is therefore of critical importance. Indeed Getz and Page (2015) cite Sadd (2014) who's perspective is of the transformational power of ICTs. She argues these will significantly alter experience design, purporting that blending the virtual and real through AR is a likely impact (Tussyadiah et al., 2018).

Critically, Getz and Page (2015) argue that the gathering of groups and individuals is still a pre-requisite of much of the co-creation of event experiences. This is likely to be the case in most contexts, but one can already see that holographic performances and other virtual experiences through ever more sensory platforms and hybrid events will continue to challenge this status quo going forward (Yeoman et al., 2014; Bolan, 2014; Tussyadiah et al., 2018). This presents a significant challenge to researchers which is highlighted by Brown and Hutton (2013, p.51) in the following extract:

“The seemingly endless increase in the pace of the development and introduction of new technology means that part of the issue for current and future researchers will not be how to get their research funded but how to get it completed before something newer (and hopefully easier and more efficient and effective) arrives on the scene.”

In adopting a research approach which seeks to explore areas of significance regarding impact, it is critical, to focus on areas which are most likely to present paradigmatic importance in the development of the element under study (Patterson and Getz, 2013). To this end, the next section focuses on Smart Tourism theory (Buhalis and Amaranggana, 2013; Gretzel et al., 2015c; Buhalis and Leung, 2018) which has evolved from Smart Cities conceptions and is already beginning to impact as 'smart tourism experiences' of attractions and events. This provides for closer interactions with the actors (people, products

and places) which reside within smart tourism ecosystems (Gretzel et al., 2015b). Smart technologies have been changing many consumer experiences. This is facilitated by more creative business models within tourism (Tussyadiah and Pesonen, 2016b), and often leveraged through mobile apps, social media, beacon technology, location-based services, the Internet of Things (IoT) and supported through cloud computing (Wang et al., 2012; Buhalis and Foerste, 2015; Koo et al., 2016; Tussyadiah et al., 2018; Buhalis and Leung, 2018). The next section focuses on specific research and examples related to these smart and social innovations in the context of tourism and events.

3.6.6 Smart and Social ICTs - Innovations, Integrations and Insights

ICTs have had a far-reaching impact on twenty-first century living as technology has changed how people, business and society functions and tourism and events are no exception (Koo et al., 2016). The increasing use of 'smart' as a term for the description of technological advances is not uncommon. In Smart Tourism contexts, its use is with technologies which are facilitating different economic and social developments where big data, open data, sensors and other smart technologies/infrastructures are networking humans and mediating their experiences (Gretzel et al., 2015a). This plays out through devices and technology embedded around locations. These generate data touchpoints in varying contexts, supported by live and real-time data-flows, perspectives of open data and information sharing and through API's. This is somewhat revolutionary in its effect on academic and practitioner perspectives of tourism and hospitality (Buhalis and Amaranggana, 2013; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018).

What separates the conceptualisation of Smart Tourism destinations and attractions from previous perspectives of ICT impacted theory, is the growing appeal of applying big data toward creating solutions. This is what Buhalis and Amaranggana, (2013, p.557) present as a more unified and open approach to "dynamically interconnecting stakeholders through a technological platform on which information relating to tourism activities could be exchanged instantly."

Integrating such a platform across what Gretzel et al. (2015a) term as the core paradigmatic technology of 'sensors and smartphones', assures multiple touchpoints are created, data flows facilitated and ultimately the potential to provide real-time technology-mediated co-creation opportunities are facilitated (Neuhofer et al., 2016b; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018). At every level (micro and macro) it is also seen as a striving to more effectively manage tourism resources and experiences at destination and attraction levels (Lamsfus et al., 2015; Koo et al., 2016).

The porting of such capability into a city, destination, attraction or event relies on the three pillars of 'smartness' which include information, infrastructure and human capital (Komninos et al., 2013). From a more holistic perspective, Koo et al. (2017, p.683) suggest that it is:

"not only fast, convenient, cheap, and intelligent for a traveller, but also efficient, effective, productive, and creative for business in terms of providing and consuming tourism products and services through a network of cooperating businesses."

Several conceptualisations of destination level smartness have been presented. These include the ecosystem perspective of Gretzel et al. (2015b), the smart experience co-creation perspective of Buonincontri and Micera (2016), destination competitiveness (Buhalis and Amarangana, 2013; Koo et al., 2016) and the smart destination framework of Boes et al. (2015). These are all focused on unpacking the opportunities and challenges of smartness in practice. The following section will focus on further unpacking these critical conceptions with relevance to event experiences embedded in Smart Tourism ecosystems as 'special' attractions (Wang et al., 2016; Koo et al., 2016)

3.6.7 Smart Destinations and Event Contexts

As Dickinson et al. (2014) posit, many large events and festivals are now incorporating core technologies which facilitate real-time updates and further personalisation opportunities for their participants. Further, they hint at the potential of such systems to provide smartness and to be used in smart event contexts. They highlight that significantly:

"the ubiquity of smartphones means they compile vast quantities of mobility-related data that has enormous potential for understanding and predicting

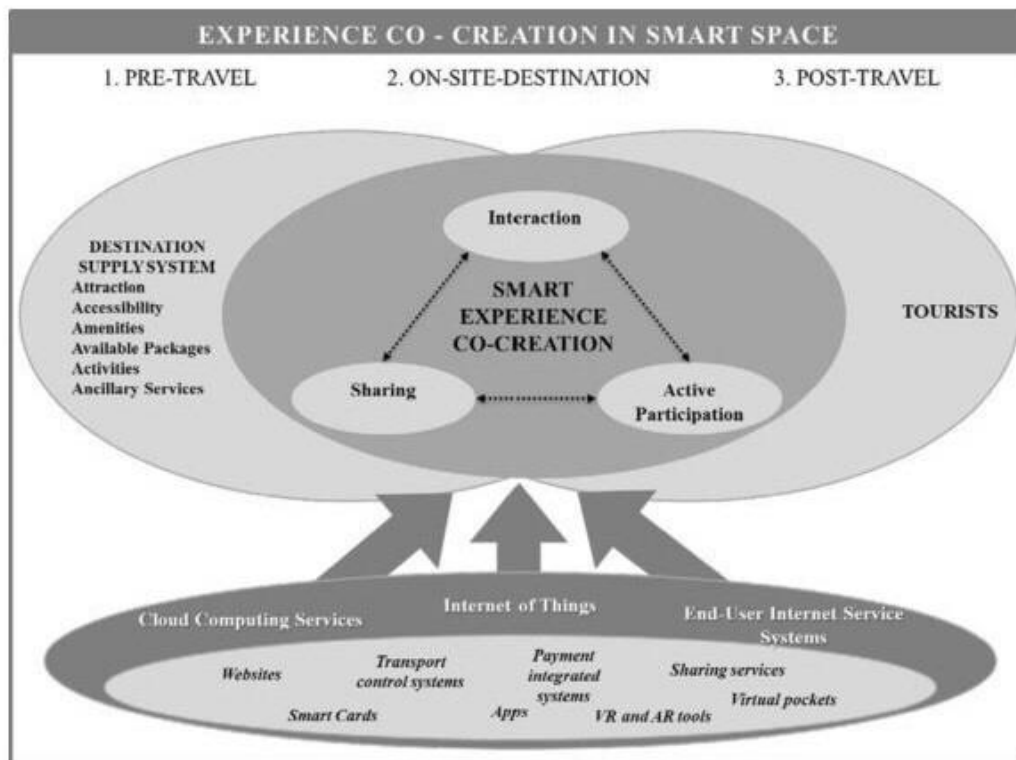
travel patterns. Each time a smartphone user moves, they leave a travel data trace that can be captured through different sensors. Mining of these data is in its infancy but could provide a myriad of opportunities” (Dickinson et al. 2014, p.98).

According to Gretzel et al. (2015a), the ease of integration of ICTs into tourism development from the outset has ensured that the sector is a natural focus for innovation outcomes. Its development may well be marked chronologically from e-Tourism to Smart Tourism as the infrastructure, impetus and opportunities are clearly existent. Gretzel et al., (2015a, p.186) further argue that “the technology push in the direction of smart tourism is immense and it is expected that tourism will provide the backdrop for pioneering many of these smart technologies.” Tourism Events as a key strategic tool utilised by governments and DMO’s in driving economic, social and cultural development (Quinn, 2013; Devine and Devine, 2017) is by extension likely to be impacted due to embeddedness within destination strategy (Getz 2013; Koo et al., 2016).

Buonincontri and Micera (2016) provide a clear perspective of how Smart Tourism Destinations (STD), through the destination ecosystem and embedded within the Smart Tourism technology paradigm, breed new business models (Gretzel et al., 2015b). They proffer that this may provide experience co-creation opportunities for all stages of travel but particularly and with the most impact on the important on-site experience, which has been suggested by many authors as being fundamental to creating the emotions and memories important in engendering satisfaction (Campos et al., 2015). Building on earlier models of technology co-creation (Neuhofer et al., 2012), and smart tourism conceptualisations (Buhalis and Amaranggana 2013; Gretzel et al., 2015c; Buonincontri and Micera, 2016), it provides a very useful interpretive framework (see Figure 3.10) to position ‘smart experience co-creation’ at the heart of STD strategy.

Figure 3-10 Experience Co-creation in Smart Tourism Destinations.

Source: Buonincontri and Micera (2016, p.296)



Critically, the model highlights the phases of experience, the dimensions of destination competitiveness, the technologies impacting experience as well as placing the individual and their interaction, sharing and active participation at the centre (Bustard et al., 2018). By leveraging Buhalis’s (2000) 6 A’s model of destination competitiveness, the framework brings the entirety of critical experience elements to the fore about destination experience co-creation provision – linking the ‘experience-scape’ in its entirety, centring around the individual (O’Dell 2005; Benckendorff and Pearce, 2012). The adaptation of Buhalis’s destination competitiveness model to include a further ‘A’ for AI, offers a glimpse of how technology can be underpinned at a competitive level through the use of machine learning techniques to predict, persuade and personalise event and destination experiences (Bustard et al., 2016).

In concluding the focus on the emerging smart tourism paradigm and its importance in theory and practice with relevance to an Event Studies perspective, focus now shifts to where knowledge shall be added, particularly mindful of Gretzel et al.’s (2015, p.562) submission that:

“privacy concerns, the effects of technology-mediated life, information overload/the value of information, trust in smart technology and enjoyment of technology-enriched experiences are only some of the many issues that need to be researched.”

With cognisance of the overarching objective of this thesis, to explore how event experiences are evolving in an era driven by ubiquitous connectivity, personalised experience and through smart and social technologies – an exploration of the warrants, underpinnings and key author’s perspectives now follows. This, as well as the modes of study are explored prior to the penultimate section of this literature chapter which is focused on the key literature gaps that this study addresses.

3.7 Gaps in the Literature

In bringing together the literature strands in a cohesive manner as to present the case for further research, the following section highlights research gaps relating to co-creation, particularly focusing on many to many (MTM) co-creation through multiple stakeholders and in the event experience context. Building on focus around MTM as a co-creation theory, Galvagno and Dalli (2014, p.650) are unequivocal in positing that research on such theory in contexts where technology platforms are utilised to engage multiple stakeholders that such research:

“perspectives seldom problematize co-creation, but is taken for granted and considered an important element that helps companies produce better results in terms of innovation and customer satisfaction. There are also interesting gaps in this structure, with special reference to perspectives that could be useful and important for the definition of a value co-creation theory.”

Ranjan and Read (2016, p.306) further highlight some insights for further research around value co-creation (VCC) and in their contribution open up several new opportunities to study theoretical and empirical research focused on antecedents and consequences of co-creation. Critical to this study is their call for more focus on establishing “how will equity with one stakeholder in the firm’s system vary when the firm tries to focus on personalization and interaction with other stakeholders?” This is relevant to VCC processes and hints at the various tradeoffs between a firm and the multi-stakeholder network and its finer constituents.

In offering a reconceptualisation of VCC through proposing the concept's dimensions to be dynamic and differentiated in a networked service environment, Best et al. (2018) provide the clearest indication for the necessity of further research into the MTM context of VCC. They offer that these changing dimensions of VCC are a subject ripe for deeper enquiry. Positing the criticality of collaboration across such networked environments and often aided by platforms, such "collaboration require a holistic determination and understanding of VCC dimensions enabling the creation and exchange of value across multiple interdependent actors." Focusing further on the actors engaged in the event experience, further research gaps are present within the area of Event Studies.

Focusing on the key authors contributing significantly to the knowledge of event experiences, within Event Studies, Berridge's (2014b) thesis is an excellent starting point. It builds on the work of scholars such as Morgan (2007a) and Getz (2012) who have been seeking to deepen our understanding of the multifaceted, multiphase and multivariate event experience phenomenon (Getz and Page 2015). Although it brings together some unique perspective in relation to wider event management practice, by proposing a number of other models through which to explore the event experience (O'Sullivan and Spangler 1999; Rossman and Schlatter, 2003; Silvers, 2004), it does not provide enough focus on the impact of technology and ICTs on the event experience. This is lacking and would assist specifically in formulating the basis to develop a much-needed framework for the development of digital event experiences by event management teams (Luxford and Dickinson, 2015; Neuhofer et al., 2016b).

That said, there is another, more obvious gap in the literature. This is where little of the impact of the digital society on experience design and experience co-creation has been explored within Event Studies, with only a small number of exceptions (Hudson and Hudson, 2013; Brown and Hutton 2013; Dickinson et al. 2014; Sadd 2014; Luxford and Dickinson 2015; Bolan 2016; Geus and Toepoel, 2016; Inversini et al. 2016; Hutchins 2016; Dickinson et al. 2016).

This has led to Hudson and Hudson (2013, p220) to call for an urgent rethink of how academics approach their research of ICT's and events stating:

“academics and researchers have an important role to play as social media spreads its wings. To accommodate a digital world, more research is needed to guide music festival marketers. Research must adopt new approaches to theory and method. Most of the research about digital media deals with small behavioral questions about online behavior and, even then, the work is often quickly outdated.”

This important ICT critique and its impact on the event experience as an ever-evolving phenomenon warrants focused exploration. The phenomenological perspective of researching event experiences advocated by Getz and Page (2016), presents a focused lens through which to explore this research opportunity, given the push of technology and its impacts on our lived experience within the experience-scape (Benckendorff and Pearce, 2012).

As tourism events become ever more significant in the development of international and regional economies (Devine and Devine, 2016), means by which to gather appropriate data as well as the impact of individual ICTs on event experiences needs updating (Gyimóthy and Larson, 2015). As Neuhofer and Buhalis posit in their paper (2013, p.139):

“research, in exploring these current issues and challenges, should exploit the potential of technology as a research instrument, by using online, virtual and mobile spaces and applying technology-led methods to develop a better understanding of Technology Enhanced Tourism Experiences.”

Focusing this argument further toward particular types of ICTs, their uses and expanding role in the event experience, Luxford and Dickinson (2015, p.3) argue that “there is currently limited literature on the consumer experience using apps and even less on the consumer experience of apps within an event context.”

In relation to the paradigmatic shift proposed by Gretzel (2015c) toward Smart Tourism, it is critical to acknowledge the importance of apps as a core technology bridging digital and physical through sensors and smartphones, facilitating technology-mediated co-creation opportunities throughout travel but in particular within the during trip phase. As Gretzel et al. (2015a, p.186) highlight there is a “lack of critical literature that scrutinizes Smart Tourism assumptions and questioned its feasibility and positive experiential, economic and societal impacts.”

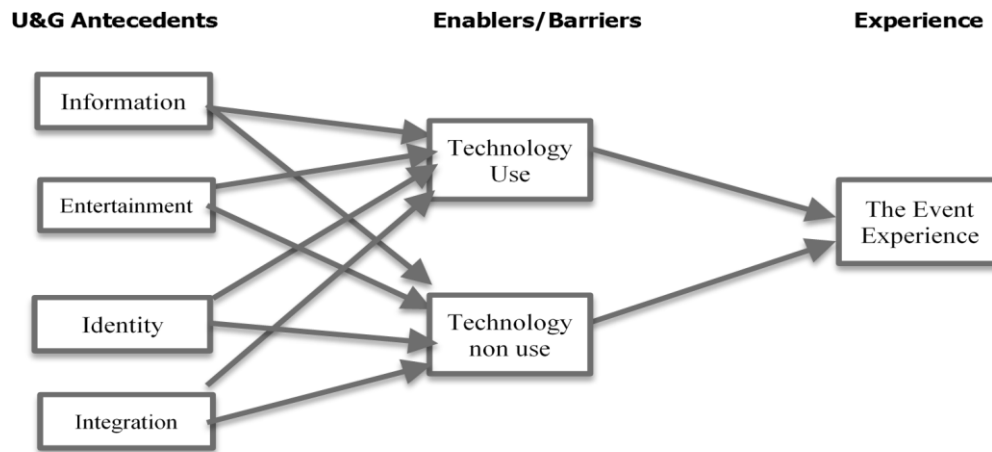
Given the use of events, in particular, 'special events', as a Smart Tourism destination strategy, there is evidence of a significant gap in knowledge relating to events in Smart Tourism contexts (Koo et al., 2016; Bustard et al. 2018). Thus, the focus is now placed on the methods of the study of this particular type of event experience phenomenon (Ziakas and Boukas, 2014).

3.8 Conceptual Models Developed to Carry Out This Study

The purpose of this literature review was *to explore the evolution of the event experience and the impact of ICTs on co-creation*. This section now presents the conceptual models which have been developed based on this literature review and presents how these are focused on meeting the research objectives of the study, firstly; *to identify the event app experience outcomes sought by spectators of events*. Section 3.6.1 highlighted the communications theory known as Uses and Gratifications Theory (U & G) and presented its use as a means of assessing experience factors across media consumption. This is the first time the theory has been used for digital contexts in events beyond fantasy sports (Dwyer et al., 2011; Weiner et al., 2017) and exhibitions (Ntamkarelou et al., 2017). As such, it has been adopted as a means of critically analysing the digital event experience. Particularly where motivation and behaviour intersect with media consumption for an improved experience. It is most suitable for this purpose given that media consumption around events tends to be goal-directed, self-directed regarding seeking out communication vehicles (Rubin et al., 1994) and is mediated by a myriad of social/psychological factors. It is also sought in a competitive arena, where there is a diverse range of information for gratifications (Wang et al., 2016).

The model also includes a measure for the use and non-use of technology (Hutchins, 2016) to provide some context around different factors which might lead to either option being adopted regarding benefiting the event experience. Figure 3.11 shows the theoretical framework which will be presented as the Digital Event Experience Diagnostic and Development Framework (DEEDD).

Figure 3-11 Digital Event Experience Diagnostic and Development (DEEDD) Theoretical Framework



Given that the range, availability and function of smartphone applications (apps) has increased (Harrison et al., 2013), event teams are challenged to adapt and engage in mobile strategy. This challenges event teams to perform and ultimately create/co-create (Campos et al., 2015) better experiences if they are to work within existing funding mechanisms (Holst Kjaer, 2011). Success depends on finding new approaches to collaboration to assure sustainable development (Devine and Devine, 2016). Although there is justifiable discourse around ICTs in spectator contexts (Hutchinson, 2016), it is difficult to envision future scenarios of event experiences, which are not impacted by mobile technology. As was highlighted earlier, means to achieve more balanced technological, organisational and environmental outcomes within tourism and events experiences is an important strategic aim (Getz and Page, 2016). The literature review highlighted a lack empirical research focused on the digital event experience (Luxford and Dickinson, 2015) and co-creation as a means of consumer innovation (Tussyadiah, 2017).

Thus, the DEEDD framework will be further explored in findings within chapter 5 at section 5.2, where it is application is discussed. The results are further presented in section 5.4 where an overview of DEEDD factors is presented. The next section presents the conceptualisation of the emerging smart event experience, increasingly seen to provide better experience

outcomes for consumers and managers of special events in Smart Tourism contexts (Koo et al., 2016).

3.8.1 Conceptualising the Smart Event Experience

Dickinson et al. (2014, p.98), in focusing on smartphone apps in leisure contexts, posit that “leading visitor attractions and destinations are increasingly adopting smartphone app technology...” and... “research on the role and impact of mobile media in the tourism travel domain, and the transport domain more widely, is in its infancy.” These smartphone apps often work in sync with localised sensors and other automation to provide real-time and contextual information and experience connectivity and as such are beginning to create the conditions for Smart Tourism conceptions to offer competitive advantage (Buhalis and Ammaranggana, 2013; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018).

As a means of illustrating this, event app technology operationalised by event management can offer significant insights and critical data to support real-time event enhancement. Brown and Hutton (2013, p.52) provide a significant perspective of this potential in relating impact to event experience design, highlighting that:

“the data are collected and recorded – and can be analysed and cross-tabulated – in real time. This provides the opportunity for event designers to make changes to the event site environment and programme in real time too, affecting changes that can positively impact on improved audience satisfaction, audience behaviour and event risk management and safety.”

Given the added pressures of security and risk management on event management practitioners (Devine and Devine, 2017) and the advancing integration of ICTs into both everyday ordinary and extraordinary experiences (Van Winkle, 2016; Tussyadiah et al., 2017b), an increasing opportunity for enhancing and providing better experience outcomes is possible. This can be achieved through utilising smartphones and sensors and is likely across many

event contexts (Luxford and Dickinson, 2015) and increasingly within the Smart Tourism paradigm, particularly via special events (Koo et al., 2016).

The goal of technology in Smart Tourism contexts is to maximise visitor and host satisfaction and to more effectively manage resources in real-time as well as through forecasting. This emerging area requires more research seeking to gain understanding of tourist and event goer preference in these contexts, as well as research of the capability or 'smartness' of both participant and service provider (Buhalis and Amaranggana, 2013; Koo et al., 2013; Wang et al., 2016; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018).

In meeting objective three of this study which is "to explore how co-creation with event fans through ICTs can improve the digital event experience", a study of the emerging smart event experience will be carried out using Interpretive Phenomenological Analysis (Smith et al., 2009). The literature review highlights that the field is moving ever closer to the 'smart event experience'. This is one which could be defined as experiences created through processes of personalisation driven by people, augmented by technologies, which seek to improve event outcomes both for the individual and for the event as a whole (Bustard et al., 2017). Thus, further conceptual focus must be applied within Event Studies on this paradigmatic evolution and is delivered through an IPA study of the digital event experience focused on the event app. This is related in detail in chapter six.

3.8.2 Measuring Fan Co-Creation's Impact on the Digital Event Experience

Objective four of this research process is to analyse the effect of co-creation of the event app experience with fans through social media. Co-creation is a key focus for many tourism and event experience contexts within the Service Dominant Logic paradigm (Neuhofer et al., 2012; Hudson and Hudson, 2013; Brown and Hutton, 2013; Dickinson et al. 2014; Sadd 2014; Luxford and Dickinson, 2015; Buhalis and Foerste, 2015; Bolan 2016; Geus and Toepoel, 2016; Inversini et al., 2016; Hutchins, 2016; Dickinson et al., 2016; Buhalis and Leung, 2018). The need to measure its potential regarding impact on experience

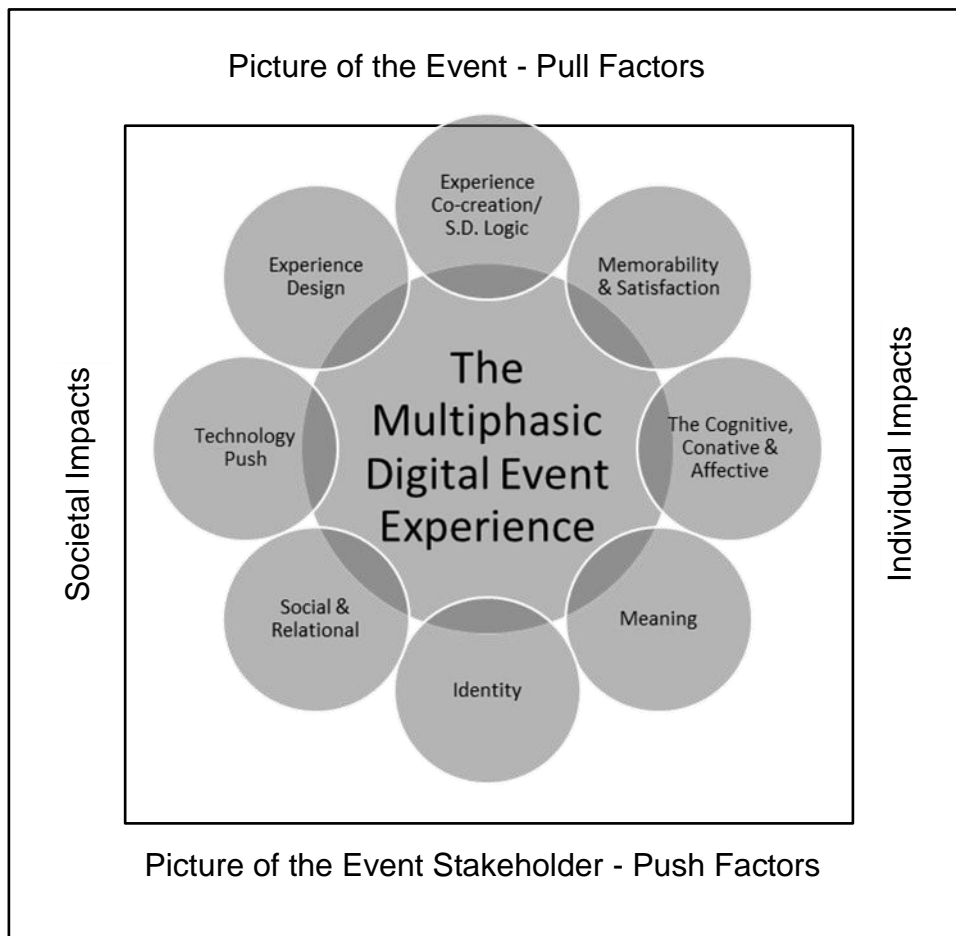
has not previously been measured quantitatively in relation to a scientifically proven action aimed at improving the event experience. The literature review has highlighted several key measures of event experience and has presented examples of measuring satisfaction across several contexts.

Through the literature review, the following constructs have been identified as suitable to measure whether any significant change deemed to relate event goer satisfaction with the event app. Using a repeat cross-sectional study to assess digital event experience, single item measures of satisfaction, enhanced experience and willingness to pay are quantified across a 2-year period. A similar event app will be measured to provide some context and validity to the findings. These measures and the means through which they are applied to measuring for significance in event experience outcome are shared in chapter six.

3.8.3 Conceptual Framework of the Emerging Smart Event Experience

In summarising this review of the literature pertinent to the digital event experience, the following conceptual framework is presented which builds on the conceptions of Event Studies theory and key event experience granularity providing an updated perspective of the theoretical linkages existent in framing the overall multiphasic digital event experience (Morgan, 2008). This framing provides a process framework through which the emergent experience can be explored, evaluated and understood within the dimensions of push and pull factors, the individual and subjective as well as the wider impacting of society on experience through culture (Getz, 2007).

Figure 3-12 The Multiphasic Digital Event Experience



The presentation of critical elements impacting across the stages, realms and in the varying contexts of an individual's experience within or around an event's community, offers a useful framework through which to understand the emerging event experience and as a staging point toward developing new knowledge in relation to the use of ICTs within events for co-creation of experiences (Neuhofer et al., 2016b, Bustard et al., 2018).

3.9 Literature Chapters: Summary

These chapters have provided a review of critical elements from three key streams which underpin the study of the digital event experience. An initial analysis of contributions related to co-creation, through the SD Logic lens was followed with examination of the 'event experience', and was related with attention to the fields of leisure and tourism. This provided a necessary and

holistic overview of the study of co-creation theory and its impact on planned events (Getz and Page, 2016). Critical to this understanding has been a focus on unpacking the subjectivity of event experiences across spatial and temporal boundaries and with perspectives of individual and stakeholder importance through acknowledging experience antecedents, meaning making and sought outcomes (Geus et al., 2016). This is fuelled through the identities and communities of connected event users, which has provided the warrant for the adoption of the term 'digital event experience' as a means of further acknowledgement of the evolving impacts of many-to-many co-creation through ICTs on experience (Galvagno and Dalli, 2015; Ranjan and Read, 2016; Best et al., 2018).

The second section (chapter 3) focused on the impact of technology on the evolving event experience. It integrated key theoretical perspectives to advance discourse on the presence and particularities of ICTs by exploring the impacts of these on the co-creation of experiences (Galvagno and Dalli, 2015; Buhalis and Foerste, 2015; Rihova et al., 2015; Horbel et al., 2016; Neuhofer, 2017; Rihova et al., 2018).

Although still somewhat underexplored in the context of event experiences, mobile technology, social media and smart technologies were explored and understood in their significance and impact on the stages of experience. This, as well as through the lens of events becoming technology enhanced (Brown and Hutton, 2013). ICTs were given provenance as operant resources in co-creating value for event goers in many-to-many co-creation contexts. As such, they are critical to be understood with cognisance of the paradigmatic shift toward 'Smartness' in events environments and through Smart Tourism principles beginning to impact upon experience design and experience consumption (Buhalis and Amaranggana, 2013; Gretzel et al., 2015a; Koo et al., 2016; Buhalis and Leung, 2018).

Critically, the review provides a strong conceptual underpinning through which the study of event experiences can be further focused and is represented through figure 3.12 (section 3.8.3) which graphically and theoretically interlinks concepts

critical to the digital event experience – conceptually underpinning this research contribution (Bustard et al., 2018).

This study has identified a clear gap in the literature about co-creating the digital event experience phenomenon and uses as a warrant, the premise that events can be perceived as ‘large living laboratories’ (Benckendorff and Pearce, 2012; Richards 2017). This study has also identified a need for new knowledge to be created focused on understanding the lived experience of event goers in digital many-to-many contexts. This is significant and escalating in importance given that event experience design in the digital age can be impacted directly by consumers. This is facilitated through generative practices and often co-created on-site in real-time (Tussyadiah, 2014; Koo et al., 2016; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018). Therefore, a re-conceptualisation of the event experience which fits with the reality of ICTs major impact on the multiple phases of the experience is not just warranted but necessary to ensure reliability in the management, measurement, analysis and development of event experiences (Van Winkle, 2016).

The thesis now progresses to outlining and discussing the methodological approach taken about the research conducted within the context provided here as applied to two international tourism events. The thesis objectives focusing the following chapter (research methodology) are 5-fold and include:

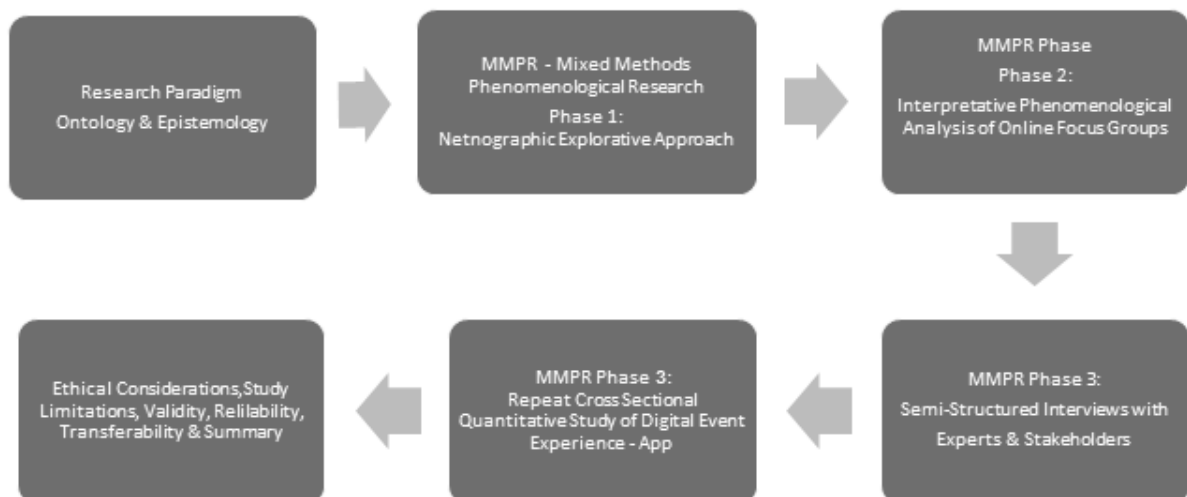
- Exploring the evolution of the event Experience and the impact of ICTs on co-creation;
- Identifying the app experience outcomes sought by spectators of events;
- Exploring how co-creation can improve the digital event experience;
- Analyzing the effect of co-creation of the event app experience through social media in the context of improving experience satisfaction;
- Developing an innovation engagement framework to improve experience outcomes for technology-enhanced event experiences.

Chapter 4 METHODOLOGY

4.1 Chapter Introduction

This chapter provides the overall research design, underpinning philosophy and strategy which has been used in addressing the central focus of this study, namely *how event experiences are evolving in an era driven by ubiquitous connectivity, the search for more personalised experience and through the conduit of smart and social technologies*. Figure 4.1 (below) presents the chapter overview:

Figure 4-1 Methodology Chapter Overview



The thesis objectives which focused this research methodology were 5-fold and included the actions:

1. To explore the evolution of the event experience and the impact of ICTs on co-creation.
2. To identify the app experience outcomes sought by spectators of events.
3. To explore how co-creation can improve the digital event experience.

4. To analyse the effect of co-creation of the event app experience through social media in the context of improving experience satisfaction
5. To develop an innovation engagement framework to improve experience outcomes for technology-enhanced event experiences.

The research design is in three-phases and developed as a mixed-methods phenomenological (MMPR) research design with the following research phases supported:

- Phase 1: Qual 1: Projective Reflective Analysis;
- Phase 2: Qual 2: Interpretative Phenomenological Analysis (IPA) of Secret Facebook Focus Groups (SFFG);
- Phase 3: Qual 3: Semi-structured Interviews of key Event Stakeholders and Quant 1: Embedded Comparative Quantitative Analysis Digital Event Experience element (App).

Table 4.1 (below) highlights the aims, objectives, phases, methods, purpose, focus, when/where and how the study has been carried out. In support of that, some key specifics of the study are outlined below to summarise the research that has been carried out and to assist in review.

Table 4-1 Aims, Objectives, Phases and Methods of Study

Aims & Objectives	Phase	Method	Purpose	Focus	When/Where	How
<p>RO1: To explore the evolution of the event Experience and the impact of ICTs on co-creation</p>	Lit Review	Lit Review	Current Academic Perspectives Need: Theoretical basis of study and identification of research opportunity	Event Studies and ICTs	Oct 15 – Mar 16	Reading event experience, co-creation and ICTs literature
	Qual 1	Netnography & Projective Reflective Analysis	Consumer Perspective Need: identification of critical enablers and barriers, actors, opportunities and challenges of the digital event experience	International Event Social Media locus (Facebook)	Mar 16 – Oct 16	Netnographic approach & Thematic analysis through International Event Facebook Page
<p>RO2: To identify the experience outcomes sought through MTM co-creation by spectators in the context of events.</p>	Qual 2	Interpretative Phenomenologic al Analysis (IPA)	Consumer Perspective Need: To explore event satisfaction in practice with spectators of events assessing the event app experience.	6 focus groups from 2 strata: Participants & Spectators of Events	Oct 16 – April 17	Focus Groups: Event Spectators and Event Participants (International Sports)
	Qual 3	Semi Structured Interviews	Service System Perspectives To explore and evaluate co-creation from stakeholder contexts around current and future digital event experiences.	10 semi structured interviews Surveys – n=549	May 16 - April 17	Semi structured interviews on-site and post event.
<p>RO3: To explore how MTM technology enabled co-creation can improve the the digital event experience – consumer perspectives</p>	Data Integration	Integration of Data	Integrated perspective Need: To integrate data from previous research phases – providing a critical and holistic insight	Integrate data from multiple sources of primary and secondary research via NVivo	Jun — Dec 17	Developmental Framework: Digital Event Experience Diagnostic and Development Framework (DEEDD)
	Quan 1	Survey				
<p>RO4: To explore and evaluate how co-creation can improve the digital event experience. – Multi-stakeholder perspective</p>	Data Integration	Integration of Data	Integrated perspective Need: To integrate data from previous research phases – providing a critical and holistic insight	Integrate data from multiple sources of primary and secondary research via NVivo	Jun — Dec 17	Developmental Framework: Digital Event Experience Diagnostic and Development Framework (DEEDD)
	Quan 1	Survey				
<p>RO5: To develop an innovation engagement framework to improve experience outcomes for technology enhanced event experiences.</p>	Data Integration	Integration of Data	Integrated perspective Need: To integrate data from previous research phases – providing a critical and holistic insight	Integrate data from multiple sources of primary and secondary research via NVivo	Jun — Dec 17	Developmental Framework: Digital Event Experience Diagnostic and Development Framework (DEEDD)
	Quan 1	Survey				

Phase 1 (see section 4.6) was a projective reflective analysis with a self-selected sample from Facebook comprising 116 participants focused on their experience with the NW200 event app. Phase 2 (see section 4.7) was an interpretive phenomenological analysis of the digital event experience where data was extracted through a series of 5 focus groups comprising a total of 29 respondents. Phase 3 (see sections 4.8 and 4.9) included 10 semi-structured interviews with stakeholders, event specialists and academics. A total of 549 participants completed a 2 year repeat cross sectional survey related to satisfaction with the event app pre and post co-creation intervention.

The events being focused on are both international events, which both offer an event app experience on the same content management system. This synergy offers comparability in digital experience terms, particularly in the smart tourism context (Gretzel et al., 2015a). The primary focus for this explorative, generative and evaluative research approach was focused on the spectator experience of the International North West 200 (NW200). It is one of the world's largest motorcycle road racing events and contributes nearly £10 million into the local economy and was experienced by 82,132 visitors in 2017 (Bullough et al., 2017). The other event is the largest of its kind in Europe, namely the Causeway Coast Amateur Golf Tournament. The event attracted 525 participants in 2017 (RPGC, 2017) and provides some comparison for the small embedded quantitative element of the study.

4.1.2 The International North West 200 Road Racing Event

The International North West 200 is a road racing event which has been running since 1929 and will celebrate its 90th year in 2019. The event is very well attended according to Race Director Mervyn Whyte MBE who suggests "there are up to 85,000 fans from home and abroad (visiting) over race week ... moreover, between 50,000-70,000 on race day, depending on the weather, (with) only 5,000 paying customers in the grandstands (Bullough et al., 2017, p.5)."

A recent economic impact study carried out by Sheffield Hallam University found that the event generated a direct economic impact of £9.8 million for the Causeway Coast and Glens council area where it is situated. This spend is accumulated across the week-long road racing festival which includes a significant range of events catering for enthusiasts, casual fans, families, individuals as well as for corporate entertainment. To provide further context, the executive summary from Sheffield Hallam University's report can be viewed in Appendix 3, and an event flyer for 2018 can be viewed in Appendix 21.

4.1.3 The Causeway Coast Golf Amateur Tournament

The Causeway Coast Golf Amateur Tournament is the largest of its kind in Europe and has been in operation since 1967. It celebrated its 50th year in 2017, and according to Royal Portrush Golf Club (RPGC, 2017), it has attracted upwards of 700 participants annually from all over the world. The event is played over a five-day period and offers participants one rest day to enjoy the Causeway Coast which has recently been named as best region in the world to visit in 2018 by Lonely Planet (Calder, 2017). The event is hosted by four links golf courses across the Causeway Coast and into Donegal. Event participation costs £170 for golfing union of Ireland members (GUI) and £230 for international entrants. For a synopsis of the event, experience see appendix 21.

The event is based from Royal Portrush Golf Club which, incidentally, will host the prestigious Open Championship in 2019 for the second time in its history. According to the Royal and Ancient (R&A) who organise the Open Championship, the event will generate more than £70 million of economic impact and destination marketing benefit (R&A, 2015).

Having introduced the events under study, this chapter now continues with an assessment of the philosophical approach adopted in aiming to deliver these objectives, leading to the research strategy, methodology, phases of enquiry, limitations, validity and criteria for trustworthiness adopted. First, an assessment of the philosophical underpinnings of the enquiry.

4.2 Philosophical Perspective of this study

As outlined in the literature review chapter, events have been studied through a variety of approaches and designs, mainly but not exclusively quantitative and often centred on the evaluation of events from economic, social, cultural, environmental and political perspectives (Getz, 2007). Technology, as was highlighted in the literature review is less observed (Gyimóthy and Larson, 2015). Given the impact of personal and mobile technologies on our lived experience (Wang et al., 2012), it is natural to speculate that significant behavioural change is impacting the event experience also. Regardless of whether technology enabled (Neuhofer et al., 2012), or seeking freedom from digital connectedness (Hutchins, 2016; Neuhofer, 2017, Tanti and Buhalis, 2017), event experiences are somewhat nuanced and subjectively experienced. As such, this subjectivity and the impacts of personal technology connection/disconnection on participants of events, offers a critical route for deepening our understanding (Getz and Page, 2016). This study sought to explore varying contexts and their attached meaning about the event experience as a developing phenomenon.

From a philosophical perspective, it is critical to provide an understanding of the assumptions which the researcher has adopted in making sense of the nature of the world under study. According to Patterson and Getz (2013, p.238)

“leisure and event studies are now, more than ever, focused on the experiential realm. This binds them together in ways that are profoundly shaping experience design and event management.”

The experiential realm, as highlighted in the literature review is highly subjective and thus is often based on studying people’s perception of ‘their’ world as opposed to a focus on what ‘the world’ really is. Thus, focus is on seeking knowledge from perspectives of the person or persons under study (Willis and Nilakanta, 2007).

This approach is deemed phenomenological and was the critical philosophical position adopted in this mixed methods approach, focusing on the practice base of digital event experience participants. It was, however, tempered with a pragmatist view, through combining the use of qualitative and quantitative

methods of enquiry, to seek to explore and explain the phenomenon through multiples forms of data collection and analysis (Creswell, 2007; 2013).

4.2.1 Research Paradigms in Events, Leisure and Tourism

Research relating to events, through Event Studies literature, has drawn a significant focus from roots in research practices within business, economics and management disciplines. Particularly given the economic impacts of planned events (Quinn, 2013; Mair and Whitford, 2013) and the subsequent local and national economic benefits associated with success (Patterson and Getz, 2013; Getz and Page, 2016). The study of events goes far beyond the discipline of Event Studies and as such offers diverse and explorative insights from other disciplines. In their appraisal of leisure and events, Patterson and Getz, (2013, p.230) conclude that:

“articles concerning planned events are found in a number of research journals, across many disciplines and fields, and this literature is often unconnected to event management or event tourism discourses.”

Thus, although trends in Event Studies have remained somewhat true to their core research paradigms, there is an ever-unfolding discourse both within the context and through interdisciplinary attention for a widening of the focus of the research of events (Getz and Page, 2015). Recently, in Event Management, Park and Park (2016, p.114) suggest “although ‘impact,’ ‘social,’ ‘economic,’ and ‘management’ have been commonly used, visitor experience is a newly emerging concept.” As was highlighted in the literature review, there have been some interesting studies of experience to date, but event experience in terms of digital contexts is still relatively under-explored. It is along this vein of thought that further exploration of this paradigmatic conceptualisation will now proceed.

4.2.2 Paradigmatic Reasoning and Warrant

In the focus changing and pivotal contribution of Mannell and Kleiber (1997), in relating their perspective of the paradigmatic roots of research in leisure studies, they confer its commonality with social psychology, in that it has been significantly positivist in perspective and reliant most on quantitative analysis. Much of the

discourse on alternatives and potential impact on this more traditionalist approach has been directed through the forging of Event Studies as a distinct academic locus, and this has been advanced most significantly by the seminal work of Donald Getz (1997). Getz, prescribed the means by which Event Studies could emerge as a distinct field by leveraging disciplinary knowledge from the study of Leisure. His perspective was related best in his three priorities for future research which included: event experiences and attached meanings; personal antecedents - choice, constraints and motivations, and finally; benefits and outcomes (particularly, on personal levels). This focus is more interpretivist in positioning and as such requires a further reliance on accountability for awareness of researcher objectivity in their connection to the subject through evidence claims and responsibility for research choices made through inquiry. All integral to appropriate research designs (Angen, 2000).

In recommending “priorities for interdisciplinary research”, Patterson and Getz (2013, p.238) present three areas of which the first is “experiences: how event designers suggest, constrain or facilitate desired experiences, ranging from hedonism to personal development.”

Meeting this priority, the digital event experience is designed for consumption within a service-dominant logic of value creation and co-creation (Grönroos and Voima, 2013). Service encounters of this ilk seek to be ever more personalised and consumer-centric and thus the process of consumption must be interpreted as experienced (Neuhofer et al., 2012). As Nordvall et al. (2014, p.128) highlight, “the experience itself can’t be designed, only suggested, facilitated, or constrained.” As such, informed research which can assist in unlocking means by which to understand participant experiences in more appropriate ways is warranted, particularly within the four general event design categories that impact experience, namely theme/program, setting (physical and digital), service experience and consumable elements (Getz, 2012; Nordvall, 2014). Phenomenological enquiry is significant in addressing such subjectivity as experienced and to allow a better understanding of the individual as part of the whole and to cater as personally as possible to individual experience tastes and preferences or to co-create these (Holst Kjaer, 2011).

Relating the philosophy of phenomenology, Smith et al. (2009, p.11) explain:

“Phenomenology is a philosophical approach to the study of experience. There are many different emphases and interests amongst phenomenologists, but they have all tended to share a particular interest in thinking about what the experience of being human is *like*, in all of its various aspects but especially in terms of the things which matter to us, and which constitute our lived world.”

The digital event experience is, therefore, one with a multiplicity of individually nuanced elements, but as a phenomenon, it has a critically high volume of interconnected and mutually experienced shared touch-points (Inversini et al., 2016). These multiple constructions of reality, unique and personally framed beg for exploration through phenomenologically focused enquiry, led by the interpretivist paradigm (Ziakas and Boukas, 2014).

The philosophy of research tends to propose a distinction of contrasting approaches to data collection, dependent on primary researcher concerns (Creswell, 2007). In evaluating the festival experience, Pilcher and Eade (2016, p.30) contend that “through interpretivist data, it is possible to apply a phenomenological approach and provide a subjective conclusion on human motivation.”

Being that this study seeks to explore the evolving event experience in this digital age, getting to grips with this subjectivity is critical to deeper understanding (Smith et al., 2009). Thus, it is important to examine the ontological perspective adopted in discharging the overall study.

4.2.3 Ontological Specifics

The exploration of digital event experiences, from an ontological perspective, should adhere to the philosophical standpoint of lived experiences being multiple constructions of reality, where our realities are constructed in unique ways depending on personal framing and situated contexts; particularly given that individuals engage with the world differently (Smith, 2004). This interpretative phenomenological perspective provides scope for more explorative and immersive research to ascertain deeper significance and understanding (Smith, 2007).

This study respects the contributions from the philosophical perspectives of early writers on phenomenology such as Edmund Husserl (Transcendental Phenomenology), Martin Heidegger (Hermeneutic Phenomenology) and Maurice Merleau-Ponty (Existentialism Phenomenology) who have been critical to the development of phenomenology (Groenewald, 2004). The digesting of these perspectives has often been through the musings of today's leading scholars of a particular strain of the discipline, such as Smith et al., (2009), an advocate of Interpretative Phenomenological Analysis (IPA). IPA is a more recent and progressive form of qualitative research which, inspired by Husserl has rigorously sought to assist phenomenological enquiry to go '*back to the things themselves*' (Moustakas, 1994, p. 26).

What is unique and innovative in this research approach from an ontological perspective in the study of events is its application to the study of the digital event experience phenomenon, through the lens of 'the things themselves' (Moustakas, 1994) using the components of the digital experience, within the framework of a mixed methods design (Creswell, 2003). Indeed, in this instance, beyond purely mixing means of phenomenological enquiry, this is an approach which is phenomenologically led, with a pragmatist perspective adopted. The mixed methods phenomenological research approach (MMPR), is emerging as an exploratory design and process (Mayoh and Onwuegbuzie, 2013). The health sciences have seen a significant rise in advocacy for the use of such mixed designs as they reason that they provide new opportunities for qualitatively meaningful and quantitatively measurable outputs to be observed, particularly in an era where information technologies, connectivity and integration are so much more facilitative (Fisher and Stenner, 2011).

Adopting an embedded design (Creswell, 2007, p.214), this study is inspired by an embedded experimental model blended into a behavioural design research process (Tussyadiah, 2017a). This is achieved by collecting, analysing and integrating data from an exploration of spectators of the International North West 200 and participants of the Causeway Coast Amateur Golf Tournament supported by the insights of key stakeholders and leading academics. This qualitatively dominated, phenomenologically focused mixed methods process (Mayoh and Onwuegbuzie, 2013) includes data from online focus groups (Lijadi

and van Schalkwyk, 2015; Tomkins and Eatough, 2010), a projective reflective analysis (Tussyadiah, 2017a) semi-structured interviews (Hallowell, 1996) and uses a 2-year cross-sectional study to support comparative and evaluative analysis (Wong and Sang, 2015). In utilising this approach, validity, context, and explanation are sought of the digital event experience phenomenon (Groenwald, 2014). This is directed in a way which seeks to provide a credible process which illustrates the diversity of experience through a lens of completeness aiming to offset weaknesses in employing only qualitative or quantitative analysis of the phenomenon (Bryman, 2006; Creswell, 2013).

4.2.4 Epistemological Specifics

From an epistemological perspective, the data sought and produced through the generative phase focused on co-creation and were created as the result of interactions between the researcher and participants and were sought in an objective manner (Creswell, 2007). These are explored through a hermeneutic cycle which allows for researcher interpretation in unpacking the phenomenon of study (Smith et al., 2009). In order to balance this reality, semi-structured interviews assisted in unpacking the evolving digital event experience and exploring the current and future potential of integrated ICTs and the people who use these adding a pragmatic focus to the overall study design (Mayoh and Onwuegbuzie, 2013; Sweeney and Goldblatt, 2016).

4.2.5 Adopting Mixed Methods

The aim of adopting this mixed methods research approach is to facilitate a study which can more easily integrate innovative research design through some of the digital habitats of the event experience-scape itself (Benkendorff and Pearce, 2012). This is underpinned by a rigorous application of traditional principles of systematic enquiry to produce a qualitatively led study, focused on the digital element of the event experience phenomenon (Getz and Page, 2016). The study explores how events are experienced through their digital and integrated manifestations and whether event experiences can be improved by harnessing event 'tribes' (Maffesoli, 1995) through social media and by exploring the will of participants through co-creation practice (Grönroos and Voima, 2013; Buhalis

and Foerste, 2015). The study focuses on the various stages of the digital experience from pre-event to in-event and post-event contexts, seeking to explore the phenomenon across all stages (Smith et al., 2009) as well as relation to digital connection/disconnection (Neuhofer, 2017; Tanti and Buhalis, 2017).

4.2.6 Comparative Perspectives of Mixed Methods in Event Studies

The history of mixed methods as an approach within Event Studies is more recent regarding adoption for analysis than in related disciplines such as Tourism Studies (Gebauer et al., 2013). A critical reason for this delay in adoption is that traditionally, events have been studied more regarding business management principles and thus, often with particular time, resources and reporting constraints (Finkel et al. 2013). Often, the focus is regarding effectiveness and success factors, efficiency and economic impact and usually driven by the requirements of stakeholders and sponsors to represent their commercial interest. Sweeney and Goldblatt (2016, p52) provide some context for the increasing adoption of mixed methods as a means of providing a *'multi-layered'* and possibly more authentic evidence base for analysis within the discipline of Event Studies.

The literature review highlighted a significant number of mixed methods designs which have sought to explore the event experience in varying ways (Getz et al. 2001; Kaplanidou and Vogt, 2010; Nordvall, 2014, Finkel et al., 2013; Hudson et al., 2014; Jonson et al., 2015; Emery et al., 2016). As such, these prescribe the warrant for the adoption of a degree of methodological innovation through the exploration of meaning and experience through the use of mixed methods phenomenological research (MMPR) (Mayoh and Onwuegbuzie, 2013). This, particularly as newer convention highlights that “Event Studies are also seen as a field that requires theories and methodologies from a number of different disciplines (Patterson and Getz, 2013, p.228).”

As such, this research process is phenomenologically led with, an interpretivist perspective and finally, pragmatist underpinnings. It facilitates the development of a two-year time bound repeat (cross-sectional) measurement and multi-layered exploration of the digital event experience with particular focus on

participants of the International North West 200 through an embedded design (Creswell, 2007; Sweeney and Goldblatt, 2016).

4.3 Phenomenological Research in Event Studies

Given the centrality of the nature and meaning of planned events to the emerging domain of Event Studies, the phenomenological study of event experiences, although highly warranted (Getz and Page, 2016), is still relatively underexplored (Ziakas and Boukas, 2015). In offering a current and thorough perspective of the experiential paradigm of events, Ziakis and Boukas (2014, p.56) posit “the event management field lags behind. This is unfortunate and has to be addressed as the experiences and meanings shape the essence of events.”

To provide further context to the use of phenomenology as a research philosophy capable of unpacking the event experience ‘black box’ (Geus et al., 2016, p.280), it is important to further understand its foundations and some of the discourse which is evident in its conception.

4.3.1 Foundations of Phenomenology

Phenomenology in the wider sense and studied empirically, is referred to with three approaches having prevalence – these being (1) empirical phenomenology, (2) existential phenomenology and (3) hermeneutic phenomenology (Ziakis and Boukas, 2014). Founded by Husserl, the philosophy has had notable contributions from authors such as Heidegger, Merleau-Ponty and Sartre who have overseen a range of philosophical developments (Smith et al., 2009). There has been significant discourse within the phenomenological field, often too dense to easily navigate (Pernecky et al., 2010).

Critically, and in relation to the discourse between Giorgi (1989) who has had a foundational role, particularly with empirical phenomenology and Smith (2009) who has pioneered the development of IPA, there appears a clash of intellects around what good scientific practice is (Giorgi, 2011). These contentions and

important delineations will be further explored in a later section focusing on this study's use of Interpretive Phenomenological Analysis (IPA).

4.3.2 Phenomenology in Tourism

The related discipline of Tourism has had a more fruitful relationship with phenomenology and explorations with seminal contributions such as Cohen's (1979) groundbreaking study which birthed a phenomenology of tourist experiences (previously explored in the literature review). This foundational work highlighted five types of tourist: recreational, diversionary, experiential, experimental and existential and is useful in unpacking experience realms, functions, impacts and effects. This seminal contribution led to significant development of the research paradigm within Tourism (Iso Ahola, 1982; Urry, 1990; Urry, 1992; Uriely, 2005) and Technology in Tourism (Buhalis and Law, 2008; Neuhofer et al., 2012). It was also critical in laying the foundations for the approach to be adopted in the related fields of Leisure and Events. This has relevance to this study regarding warrant (Getz, 2008), impact (Morgan, 2008) and research design (Holst Kjaer, 2011; Ziakis and Boukas, 2014; Berridge, 2014b).

4.3.3 The Digital Experience Phenomenon

The critical gap which remains significantly unexplored in terms of its phenomenology is that of the event experience (Getz and Page, 2016) particularly the digital element (Inversini et al., 2016). This is where the digital self and digital exploration may impact the physical self in a quest for information, diversion, experience enrichment or enhancement (Neuhofer et al., 2015a). Focusing on event apps, a powerful and emerging aspect of experience management in the digital age, it is critical to explore this evolving phenomenon. Luxford and Dickinson (2015, p.44) argue "apps bring a new "relativity" to the festival experience as users can visualize themselves in relation to key people, the event schedule, their location, and personal needs."

Therefore, focused pursuit of new understanding of this new relativity and its impact on participant experience as they engage through smartphones is critical

in its implications to experience design, management, research and future development (Tussyadiah 2017a). As a means of applying a research design with explorative, generative and evaluative consistency across the personal and subjective elements of technological impact within the event experience, a mixed methods phenomenological research (MMPR) approach has been adopted. and is explained below (Mayoh and Onwuegbuzie, 2013).

4.3.4 Phenomenology in Mixed Methods Research

In its simplest terms, in describing the mixed methods paradigm, Johnson et al. (2007) propose that there are three types of mixed method research, namely equal-status mixed research, quantitative dominant or qualitative dominant mixed methods approaches (Creswell, 2013). The subjective nature of experience and the ability to measure elements of it, are not without challenge but have been successfully used in Event Studies on several other occasions (Sweeney, 2011; Hudson et al., 2014; Kinnunen and Haahti, 2015; Sweeney and Goldblatt, 2016). Indeed, these earlier works provide the creativity to employ and adopt the approach with relativity, but the main framing has been firmly directed by the nature of the question under study:

“how event experiences are evolving in an era driven by ubiquitous connectivity, the search for more personalised experience and through the conduit of smart and social technologies.”

As such, with focus on the personal; the nuanced and experiential, the nature of this design has been focused as qualitative dominant in that it assists to “identify the meanings that consumers attach to their consumption experiences through the careful use of qualitative frameworks of inquiry (Pachauri, 2002, p.343).”

The blending of phenomenology in mixed methods research is an emerging innovation in research design but is merely a means of extending the arguments already positioned by advocates of mixed methods approaches. It is seen to provide an alternative to a mono-method where it is deemed not to sufficiently and effectively handle a research problem’s complete nature (Ivankova, Creswell, and Stick, 2006). In this instance, its evolving nature.

As highlighted earlier, Event Studies paradigmatic relevance draws much from the business and management disciplines with the scale of participation in events offering a strong quantitative opportunity for evaluation of impact (Mair and Whitford, 2013). Other related disciplines such as social care in the Health Sciences have successfully used the blending of phenomenology through mixed design as a means of contextualising lived experience in broader social and cultural perspectives (Mayoh and Onwuegbuzie, 2013). Indeed, with a significant and escalating amount of time prioritised for online interaction, whether individually or socially, the ability to measure from these interactions as part of an evaluative intervention is lauded by many as revolutionary in the research of social sciences (Kozinets, 2010).

In this instance, we take inspiration from related social sciences perspectives (Getz and Page, 2016), and draw this design from one of five proposed by Mayoh and Onwuegbuzie, (2013, p.104) related as 'PHEN and quantitative' and propose that "the secondary quan/qual phase is used to help improve the utility and generalisability of phenomenological findings." In this application and according to the authors, this approach has been applied as most useful in the study of questions requiring a more inductive approach (Creswell, 2007).

4.3.5 Netnography - The Field Study of Computer-Mediated Interaction

Recently redefined (Kozinets, 2015), Netnography, was first presented as "a new qualitative method devised specifically to investigate the consumer behavior of cultures and communities present on the Internet" (Kozinets, p.1998). The enthusiasm for which this process of the study of online communities was adopted, was in no small part due to the abundant opportunity to ethnographically explore digital realms in such a manner as to gain insights into participant identity, sociality, creativity and modes of learning (Morgan, 2008). The process allows researchers to analyse and interpret the presentation of what might be referred to as 'the digital self' (Schau and Gilly, 2003) portrayed through self-representation within and across online communities (Kozinets, 2010).

4.3.6 Taking a Netnographic Approach to Event Studies

In their influential paper in the *International Journal of Event and Festival Management* relating the participant experience, Holloway et al., (2010, p.81) suggest that netnography offers potential as an approach for:

“future research into the social and emotional world of event participants. By giving primacy to the data and focusing on the emic perspective, ethnographic approaches are useful for context-sensitive research because it explores the meanings of events for the participants who experience and are involved in them.”

Netnography offers just such an ethnographic window as a gateway to exploring such event communities, across multiple habitats, through their experiences and the attached meanings (Morgan, 2008).

4.3.7 Impact of the Netnographic Approach to the Study of Events

Some critical successes of the netnographic approach within Event Studies, providing further warrant for its inclusion, is evidenced in the seminal work of Morgan, (2008). His in-depth analysis around the event experience and the elements, contexts and psychological impacts of experience design are arguably better understood through this approach which highlights the use of netnography “to learn how people describe, explain and assign meaning to event tourism experiences (Getz, 2015, p.610).” With growing interest, studies such as Gyimóthy and Larsen, (2015) and Hoksbergen and Inch (2016) have embraced the method to study online co-creation, particularly via social media for its ability to engender participant attitudes and behavior more freely (Morgan, 2008). The benefits of the approach include accessibility, which is often cited as a significant constraint of ethnographic study (McCarthy, 2004).

Adopting a netnographic approach (Kozinets, 2010), this study of the potential to harness insights from event participants via social media has engaged an online community of sports spectators in a multiple stage process of exploratory, generative and evaluative research (Tussyadiah, 2017a). Given the constraints faced by event organisers regarding working within the parameters of economic sustainability (Devine and Devine, 2017), this process was deemed to present an opportunity to blend explorative processes of enquiry whilst balancing the needs

to support the development of an event's digital experience (Morgan, 2008). This ultimately assures synergy between research process and research impact, engendering a more positive research outcome.

4.3.8 The Case for Methodological Innovation

According to Benckendorff and Pearce (2012, p.13):

“events arenas are large laboratories, and sometimes difficult ones in which to work, but the logic of assessing human reactions to altered conditions, particularly changes in experiencescapes offer a pathway for study”.

Adapting this viewpoint to the digital realm of event experience, which is proposed in this study as the experience of event technology as a part of the experience-scape, ensures a suitable and focused approach. This is important to delineate given the nature and subjectivity of the event experience phenomenon (Getz and Page, 2016; Raj et al., 2017).

Additionally, adopting the netnographic approach is most ethically and empirically significant given the nature of the questions relating to the event and the contexts being explored (Kozinets, 2015). Netnography provides an appropriate process of engagement which is open and clear in its objectives to respect the community of study (Kozinets, 2010). In this context, the focus is related to the digital communication and technology impacts of the event app experience on these communities (Luxford and Dickinson, 2015). There is an important requirement to explore co-creation processes used as a means to deliver an improved event app experience.

In the closely related field of Tourism research, Pearce and Yagi (2004) present four areas which provide methodological innovation in the context of disciplinary research evolution. Firstly, the opportunities presented by using new technologies; secondly, qualitative research's growing acceptability; thirdly the extension of study into as-yet under explored realms (such as digital) and; finally, the commercial pressures requiring timely and resource efficient research practice. Thus, entree (Kozinets, 2010) to these communities via the digital realm is a critical factor in adopting the ethics of this more open approach. Although in completing the study in its entirety, the flexibility of additional offline methods was

also required for data capture of particular event fans to ensure participation and comparative analysis opportunity (Berridge, 2012).

Critically, this study adopts each of Pearce and Yagi's (2004) four areas to varying degrees within this analysis. This is achieved through implementation of the poll integration API on Facebook, leading with qualitative analysis of event app experience and within a time-bound and resource efficient manner. It is hoped that this design, inspired by a mixed method embedded experimental model (Creswell, 2007) provides a systematic approach to exploring, understanding and improving elements of the digital event experience.

Facebook has been adopted as the key focus of data collection for several reasons. Firstly, it is often (as in the case of the NW200 event) the dominant social networking service and digital marketing communications channel adopted in communicating with events (Chappuis et al., 2011). Secondly, although this has been the experience related through the literature (Hudson and Hudson, 2013) there is still very little known about the forms of value co-creation which are taking place through the platform and the potential of this and other social media platforms as locations of co-creation in the context of events (Hoksbergen and Insch, 2016). Finally, the nature of the phenomenon of focus and the netnographic approach to its study (Kozinets, 2010) makes it the best match in terms of academic focus as a successful locus of value co-creation and engagement (Marandi et al., 2010) through customer insourcing, crowdsourcing and community consolidation (Gyimóthy and Larson, 2015).

There are several limitations to the use of Facebook in this manner which must be clarified. Firstly, by gathering data through social media platforms, it can limit participant access given that not all fans use nor indeed would wish to use Facebook nor have internet access (Pasanen and Konu, 2016). Secondly, Facebook is not the only platform being used by fans and as such other platforms may have traction and be more relevant to the fanbase, potentially missing a wider range of participants (Ranjen and Read, 2016). In addition, the data generated can be dependent on the textual descriptive capability of participants and as such limitations may exist for those challenged by technology or with less ability to translate their thoughts through this medium, providing shorter

comments. Although this has seen good results in the case of focus groups were all commenters participate more compared with the disproportionately larger contributions of usually fewer numbers overall in face to face meetings (Lijadi and van Schalkwyk, 2015).

4. 4 A Critique of Mixed Methods Phenomenological Research

According to Sweeney and Goldblatt (2016, p.41) “there has been limited discussion in the literature of the best methodologies to employ in providing an overall comprehensive evaluation system for planned events.”

Given the importance of the philosophical underpinnings of any research design, it is critical that the impact of such decisions be understood and clarified in relation to sought outcomes (Creswell, 2003). In this instance, the use of mixed methods phenomenological research in exploring, understanding and evaluating the digital event experience is discussed.

4.4.1 Scientific Basis of Mixed Methods Phenomenological Research

There has been a significant lack of the use of phenomenological research in the discipline of Management Studies where a focus has tended to be on quantitative methods, arguably to the detriment of creating a wider discourse (Ehrich, 2005). Phenomenological approaches have been adopted in the areas of Marketing and Consumer Research and with great effect in the related discipline of Tourism. This is where studies focused on the tourist experience, have created much of the foundational and framing of the study of that discipline (e.g. Cohen, 1979; Li, 2000; Uriely et al., 2005; Neuhofer et al., 2012; Campos et al., 2015).

In their study of phenomenology, Ziakas and Boukas (2014, p.64) argue:

“quite surprisingly, ... there are scant phenomenological studies in the field of events despite the ostensible potential of phenomenology to uncover layers of meaning in the experiences of event attendees.”

Although phenomenological studies are on the increase (Pilcher and Eade, 2016), we have yet to see this strain of MMPR applied in Event Studies.

4.4.2 Philosophical Bases of Mixed Methods Phenomenological Research

In recent times, there has been significant growth in post-positivist exploration of the study of Leisure Events (Patterson and Getz, 2013). In particular, in areas which require an interpretivist stance for scholars to understand the event experience subjectively, in its many contexts and through its multiple constructs (Getz and Page, 2016). Mayoh and Onwuegbuzie, (2013) posit:

“MMPR can be defined as research that combines phenomenological methods with methods grounded in an alternative paradigm within a single study (Mayoh and Onwuegbuzie, 2013, p.103).”

Thus, in mixing research paradigms, attention must be given to the primacy or complementarity of the chosen elements within the design to ensure the process meets claims of validity, reliability and is clear and unambiguous in meeting its research aims (Creswell, 2003). As such, this research design is phenomenologically led (interpretivist in nature) and supported in an evaluative second act by a quantitative repeat cross-sectional analysis of critical impacts on key variables such as satisfaction, enhanced experience, engagement and willingness to pay. In locating the work in relation to phenomenological discourse, the position is one of hermeneutic phenomenology within tourism studies (Pernecky and Jamal, 2010, p.1072), more specifically influenced through Heidegger’s hermeneutic approach of knowledge production through the perspective of ‘being-in-the-world’ to explore the tourist experience.

4.4.3 Challenges of Mixed Methods Phenomenological Research

The use of MMPR is a relatively recent development in mixed methods and as such is adopted in an explorative manner within this study of events. Although there has been an expectation, within mixed methods practice, for methodologists and researchers to explore means to transfer additional research approaches into QUAL or QUANT led mixed methods research versions (Johnson et al., 2010), it is still relatively uncommon to apply a mixed methods approach in event studies (Sweeney and Goldblatt, 2016).

This is in part due to the added complexity of such studies and the additional focus and enquiry required to adequately meet research outcomes around research objectives. With a focus on research planning, one can consider Sweeney and Goldblatt (2016, p.52) who recommend:

“the following actions be taken in terms of event planning on this scale: (1) A significant planning cycle should be assigned to a hallmark event project... A minimum of 3 years and ideally a 5-year planning window should be considered when seeking to deepen the experiences and meaning that will result from an event of this significance.”

Regarding this research process, the study was planned over a 3-year period.

Criticism of MMPR and other mixed methods research usually centres on the philosophical challenge of the historically rooted suggestion that methods of differing paradigmatic construct are unable to answer the same research issue due to phenomenological inconsistencies when explored in quantitative and qualitative paradigms (Sale, 2002). A significant rebuttal of this perspective about MMPR is that of the pragmatist view that researchers should seek out whichever methods work (Howe, 1988), in particular, due to the benefits of a more holistic understanding and discussion around the phenomena under study (Mayoh and Onwuegbuzie, 2013). It is with this warrant that the study proceeded with a netnographic focus.

4.4.4 Challenges of the Netnographic Approach

The netnographic approach has its peculiarities and challenges, which may include the absence of non-verbal cues and other nuanced data which more usually remain out of sight in the study of online communities (Mkono, 2012). That said, the advancing use of video messaging and the creative use of emojis, memes and other means are in themselves creating rich communications, where nuance and subtlety can be evaluated more deeply (Kozinets, 2015). Additionally, where studies have a significant focus on online behaviour, a rich seam of data may well remain unaccounted for, with a section of community members (particularly around events) who choose not to or are unable to connect to social media (Langer and Beckham, 2005; Hutchins, 2016). Accounting for

this discrepancy is a critical part of implementing the steps of netnography which include research planning, entrée, collection of data, interpretation, representative ethical standards, and research representation (Kozinets, 2010). One such means of doing so is through the use of blended netnography which provides a combination of both online and in-person data collection methods as a means of creating more potential generalisability from findings (Kozinets, 2006). We now focus on how this approach is being adopted within this mixed methods phenomenological research of the international event experiences selected.

4.4.5 The Warrant for Adopting a Mixed Methods Phenomenological Research

In discussing the tentative use of mixed methods research in events, Sweeney and Goldblatt (2016, p.51) conclude that:

“the reason for this gap in the literature is a combination of costs, time availability, and the need by some funding bodies to quantify the outcomes of these types of events through economic impact studies.”

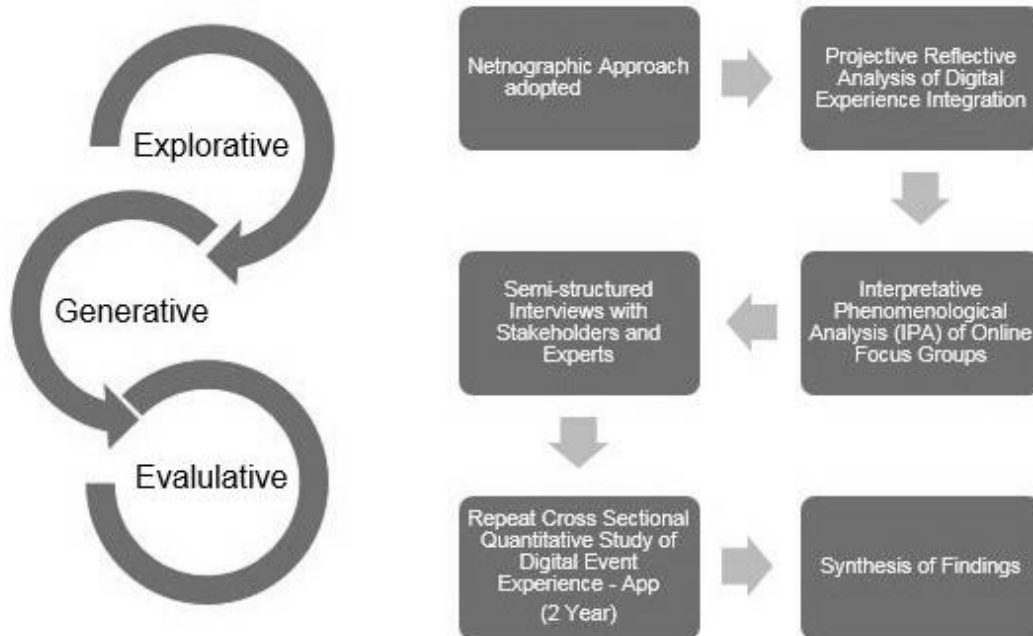
Where the barrier of time and the necessity of adopting such a pre-determined evaluative process does not dictate a process of study of an event or events, such as through this PhD study, there is ample justification in the literature about the use of phenomenology in conjunction with other methods. This is particularly valid to enrich understanding and as a vehicle to create new knowledge (Ziakis and Boukas, 2015).

In relation to phenomenological approaches in the study of events, Ziakis and Boukas (2015, p.70) conclude:

“it would perhaps be better for researchers to try revealing issues and interrelationships that add new insights to phenomena under study rather than drawing absolute conclusions.”

The evolving nature of the digital event experience lends itself to such an approach but arguably, the inclusion of an embedded evaluative context, situated in measures of quantifying outcomes of co-creating the digital event experience, will lead to an iterative process of both inductive and deductive insights (Morgan, 2007b). Next, Figure 4.2 presents an overview of the stages of MMPR adopted.

Figure 4-2 Methodological Overview of MMPR Approach



4.5 Phases of Mixed Methods Phenomenological Research

According to Mayoh and Onwuegbuzie, (2013, p.98), there are:

“three major types of mixed methods studies: Equal-status mixed research, wherein equal prominence is given to both the qualitative and quantitative components; qualitative dominant mixed research, wherein priority is given to the qualitative element (in this case IPA) and quantitative dominant mixed research.”

In this instance, given the nature of the digital event experience as a relatively un-researched phenomenon, the exploration of co-creation of experience value provides the leading analysis. Further evaluation through cross-validation, confirmation and further exploration of the phenomenological nature of this element of the event experience with quantitative data follows (Gupta et al., 2012).

This mixed-methods approach employs a concurrent embedded strategy, in that qualitative and quantitative collection of data is simultaneous (Creswell and Plano-Clark, 2010). Within the qualitative process, there are three phases of data collection. Firstly, through an online projective reflective technique to explore mobile contexts, sought outcomes, challenges and opportunities within the current digital experience (Luxford and Dickinson, 2015). Secondly, at the core of this MMPR study is the use of Interpretative Phenomenological Analysis (IPA) to explore responses from participants of online focus groups and their activity in the co-creation of the digital event experience. Finally, semi-structured interviews relating the views of a range of event stakeholders, professionals, academics and suppliers complete the collection of qualitative data and provide a broader picture of the digital event ecosystem (Gretzel et al., 2015a).

Although a first within Event Studies, this model of concurrent embedded design reflects the successful research approach adopted by Gupta et al. (2012) who demonstrated cohesion between data produced through their concurrent embedded study of experiences of burnout within occupational therapists. They achieved this by presenting data in a clearer visualisation of coping strategies related to evaluated practice issues. In the same vein, this study will use small quantitative measures to evaluate, cross-validate and explore claims (Creswell, 2007) relating to key variables as previously outlined such as event app experience satisfaction, enhanced experience and willingness to pay.

4.5.1 Pre-Research Phase: Literature Review

The importance of a systematic approach to executing research methods may seem obvious but can often be under-developed (Tracy, 2013). The literature review in the pre-research phase is critical to the overall process as it forms the reason d'être for the chosen philosophical underpinning, ontological and epistemological decisions and as such, acts as a baseline from which to proceed (Best et al., 2014).

It is not always necessary to carry out a full systematic literature search for an enquiry, particularly in instances where such an approach has been recently

completed in the same or a similar literature stream, or it is incompatible with the design employed due to bracketing challenges (Smith et al., 2009). That said, the importance of applying a literature review method ensures repeatability and ultimately, the important openness required for truly scientific pursuit (Creswell, 2007).

Affirming Best et al.'s (2014) digital age approach to systematically retrieving research, an initial scoping study was carried out focused on the keyword 'event experience' and utilised Arksey and O'Malley's (2005) scoping process which is outlined below:

Stage 1: identifying the research question;

Stage 2: identifying relevant studies;

Stage 3: study selection;

Stage 4: charting the data;

Stage 5: collating, summarising and reporting the results.

According to Arksey and O'Malley (2005), there are four potential uses of applying a scoping review of which two include its use as a basis of preparation for full systematic review and two are specified as methods in their own right leading to identifying questions and to support study findings. In this instance, the latter has been adopted and a methodological framework applied to ensure a rigorous and focused review of existent experience literature.

As with systematic literature reviews, identifying the research question is the critical starting point. The question generated in this instance was:

"How are event experiences evolving in an era driven by ubiquitous connectivity, the search for more personalised experience and through the conduit of smart and social technologies."

Relevant studies were then located across both published and unpublished (grey) literature including from electronic databases, reference lists, searching reference software databases, relevant bodies, google scholar and conference proceedings. At the outset, a period (studies pre-2017) and language were adopted (non-English articles were rejected). It is critical to highlight that non-

translated but potentially influential papers could be missed, but the cost and practicalities of inclusion were deemed too great (Tracy, 2013).

The preliminary approach highlighted a significant number of articles that were irrelevant, and thus in stage three, a focus was placed on creating a mechanism to eliminate studies unrelated to our central question around event experience. In executing this step of the process, “criteria were devised post hoc, based on increasing familiarity with the literature, that we could then apply to all the citations to determine their relevance (Arksey and O’Malley, 2005, p.26).”

In charting the data, an approach was adopted that provided a narrative review of the key themes, issues, methods and outcomes of the studies. Such an approach is important in the literature review and facilitates an ongoing systematic and rigorous means by which to synthesize the key elements of the literature in preparation for the final stage (Ridley, 2008).

In collating, summarizing and reporting the results, the method is rigorous and robust in highlighting the existent gaps in the literature, critically, areas where further research is warranted including new frontiers and explorative opportunities in emergent paradigms of the event experience as a phenomenon were uncovered with competitiveness relativity (Koo et al., 2016).

4.6 Phase 1: Netnography Leading to Projective Reflective Analysis

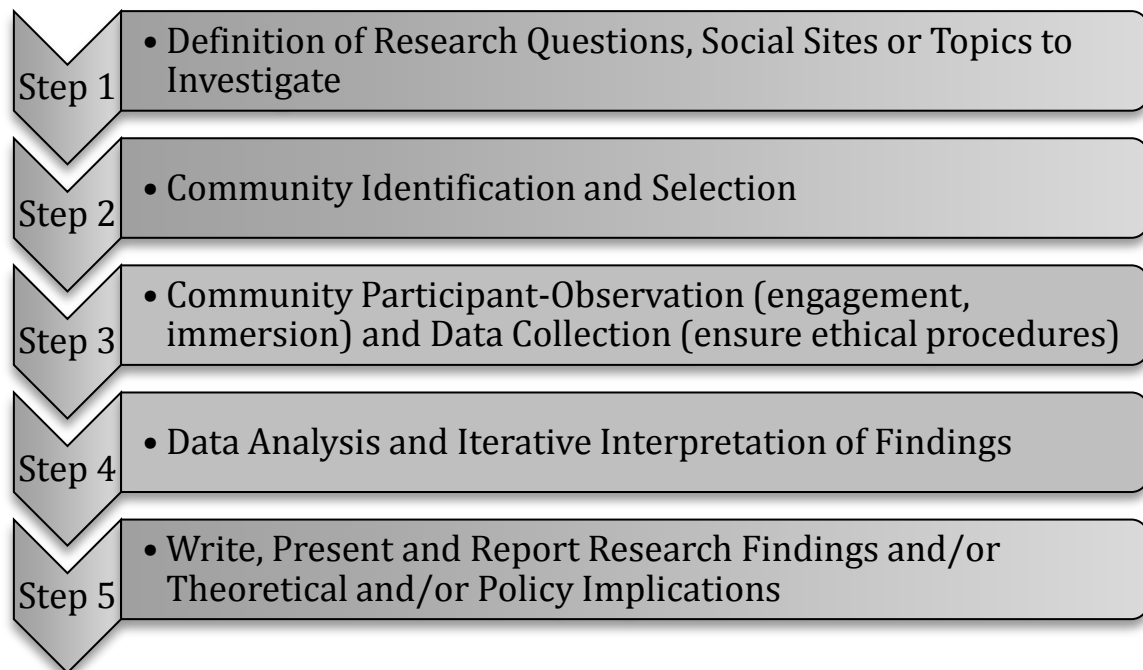
Upon completion of the literature review, clarity of focus about clear literature gaps around the digital event experience provided for an opportunity to begin to explore the digital culture surrounding the chosen events as a means to investigate how experiences are evolving through smart and social technologies. As Kozinet’s (2010, p.22) argues, “the insight that technology does not determine culture, but that they are co-determining, co-constructive forces, is a crucially important one.”

In this vein, the study seeks to firstly explore the outcomes sought by event participants, particularly in digital contexts where co-creation is a sought element.

4.6.1 Netnographic steps

The Netnographic steps employed in this study are highlighted in Figure 4.3. below.

Figure 4-3 Netnographic Steps (Adapted from Kozinets, 2010, p.61)



The initial step, directed by the scoping review of the literature (Arksey and O'Malley, 2005), and focused on the evolving nature of the digital event experience, led to summary discussion within supervisory of potential sites of study. These discussed samples would provide more unique perspectives of individual and collective experiences of technologies in event contexts (Inversini et al., 2016).

4.6.2 Netnographic Locus

In assessing suitable communities for research, an agreement was reached to focus on international tourism events, with local access. This initial evaluation of availability and access was quite focused, particularly in the research proposal phase and built on the opportunity of research access and comparability (Tracy, 2013). The opportunity persisted into agreement being reached with event

stakeholders, which assured access to additional comparative data for evaluation purposes. This was important, particularly in light of the local events both providing an element of their digital experience on the same digital (app) platform. This was a critical factor in the decision to focus on these tourism events. It allowed for cohesion about which element to use as a tool for dialogue with participants and spectators of each event and an initial starting point from which to comparatively explore and evaluate perspectives from both spectator and participant outlooks (Creswell, 2007). Additionally, following literature review, it was evident that no other study had phenomenologically explored the digital event experience in relation to sports events in this manner, with no comparative research focused on the digital experience across these event-specific contexts (Ziakas and Boukas, 2014).

Mindful of the opportunities to explore the phenomenon within the paradigmatic perspective of Smart Tourism, and its emerging destination and attraction perspectives (Buhalis and Amaranggana, 2013; Koo et al., 2016), the events are compatible given their use of apps as a means of experience enrichment and through their core technology and bridging of the digital and physical (Gretzel, 2015c). Table 4.2 (following) is adapted from Gretzel et al. (2015c), presenting the current positioning of each event regarding readiness for Smart Tourism integration.

Table 4-2 Smart Tourism – Study Pre-Determinants. Adapted from Gretzel et al. (2015c)

Focus	e-Tourism	Smart Tourism	NW200	CC golf
Sphere	Digital	Bridging digital and physical	Smart Tourism	e-Tourism
Core Technology	Websites	Sensors and smartphones	Smart Tourism	Smart Tourism
Travel Phase	Pre- and post-travel	During trip	Smart Tourism	Smart Tourism
Lifeblood	Information	Big data	e-Tourism	e-Tourism
Paradigm	Interactivity	Technology-mediated co-creation	Smart Tourism	e-Tourism
Structure	Value chain/intermediaries	Ecosystem	e-Tourism	Smart Tourism
Exchange	B2B, B2C, C2C	Public-private-consumer collaboration	Smart Tourism	Smart Tourism

As pre-requisites to study, both events met the following absolutes for inclusion:

1. Sensors and smartphones – inclusion of these to facilitate event experience.
2. Openness to innovation ‘exchange.’

4.6.3 Engagement, Immersion and Data Collection

Engagement, immersion and data collection ensued. A focus on further immersion within both events through access to online communities via Facebook fan pages provided initial analysis and event population demographics (see appendix 2). It quickly became evident that the scale of activity on one particular site was much reduced due to factors of event particulars (At CCGolf - approximately 600 participants, quite low comparatively, have liked the Facebook page, and the community is relatively inactive on social media

4.6.4 Exploration, Iteration and Experimentation

As an explorative technique focusing on the digital event experience, the netnographic approach progressed by implementing a Projective Reflective Analysis (Tussyadiah, 2017a), focused on event app artefacts and directed by seeking understanding of what critical experience outcomes are sought through mobile technology by spectators of international events. Mobile technology harnesses ever more capability to facilitate experience co-creation through digital event contexts and therefore in concurring with Nelson, (2009, p.130), this study foregrounds the suggestion that “experimental methods and surveys would also be appropriate for assessing the impact of design dimensions on attendees and providers.”

Co-creation through ICTs is somewhat reliant on participation and permission for inclusion. This is particularly true of user data, and as such, this permissions bridge to co-creation is where the study initially focused (Neuhofer et al., 2016a).

4.6.5 Approach Rationale - Netnographic

In researching any human experience, it is helpful to explore participants in the location of that experience, whether in physical or online contexts (James and Busher, 2009). It is also crucial that these interactions are explored within the personal contexts, motivations, preferences and substance of people’s sensing, organising, performing, linking, and navigating (Inversini et al., 2016).

In exploring the digital event experience and respecting the influence of experience design on its impact on event fans, netnography facilitates an immersive and explorative means to unpack critical bridging points of sense-making through technology such as smartphones and/or wearables (Tussyadiah, 2017b). A netnographic approach in the study of experience outcomes sought using an event app, provides unique insights toward deepening our understanding of these critical mobile touchpoints, where personalisation of service is sought through permission seeking and integration steps engaged in by both platforms and users (Luxford and Dickinson, 2015; Inversini et al., 2016).

With a focus on behavioural impacts, both on the individual and overall, within the digital experience phenomenon (Smith et al., 2009), the netnographic approach facilitates the researcher's immersion in the dialogue surrounding these experiences. It also provides the flexibility to choose from a variety of observational and participatory means of data gathering to answer research questions (Kozinets, 2010). In researching the evolving digital event experience, netnography offers an ethnographic approach to explore and understand how the event experience is influenced by digital channels (Morgan, 2008). It does so by unearthing rich and descriptive meaning, which seeks to accurately and with clarity, portray how the phenomenon unfolds (Getz and Page, 2016).

4.6.6 Sampling and Research Design

In such a qualitatively led mixed methods study, it is worth noting Hackley (2003, p.75) who posits that:

“data gathering for interpretive research need not be random, but it does need to be systematic and/or theoretically informed” ... and as such ... “in interpretative research the researcher seeks to arrive at insights for which he or she will offer as much evidence and reasoning as possible.”

Thus a focus of interpretation and opportunity for co-creation to be examined was necessarily focused on Smartphone applications (apps). Apps have become a significant focus of study in relation to tourism and event experiences (Luxford and Dickinson, 2015; Narbona and Arosa, 2016) due to their convenience, everyday usage, contextualizing capabilities as well as their potential for enabling creative abilities (Tussyadiah and Fessenmaier, 2009; Wang et al., 2014; Tussyadiah and Wang, 2016a). The embedded nature of smartphones in everyday contexts and the apps which are relied upon offer a significant experience artefact through which to explore tourism and events (Bolan, 2014). As a component of the digital experience and in the context of events, research around the central artifact which is a conduit to the internet, other platforms, content and contextual insights through sensors, allows for research to unpack the emerging smart event experience along the appropriate smart tourism paradigm (Gretzel et al., 2015c)

Following discussion within supervisory related to the digital platforms servicing two international events held on Northern Ireland's Causeway Coast, it was deemed as worthwhile and warranted to comparatively evaluate elements of these events which are linked through their use of event apps (Creswell, 2013). Event and festival apps have been explored regarding experiential needs (Luxford and Dickinson, 2015) and in terms of their role (Narbona and Arosa, 2016) and future impacts (Bolan, 2014) but not as a means of exploring the evolving digital event phenomenon. This purposive sampling at the initial stage, was led by the ability to focus most clearly on elements of the digital event experience, particularly along the paradigmatic theme of smart destinations theory which includes events (Koo et al., 2016). This builds understanding of how destinations and their experiences leverage smartphones and sensors within smart tourism ecosystems (Gretzel et al., 2015a; Buhalis and Leung, 2018).

These events are International in visitor profile but different in both sport and participation level. The International North West 200 motorcycle road racing event (NW200 2017 Economic Impact Executive Summary - see appendix 3) is visited by 100,000 fans throughout the racing festival. The largest online community related to this event converges through Facebook and post-event on 23rd May 2017 the page had 86,283 likes up from approximately 72,000 in 2016 (see appendix 2 for FB stats as at January 2018). In contrast and on the same date, the Causeway Coast Amateur Golf Tournament, which had a capacity of 600 participants in a week-long event across four golf venues had 607 likes. In relation to comparative research, previous authors have distinguished between what was described as the more passive event attendee and the more active event participant (Pettersson and Getz, 2009; Beckendorf and Pearce, 2012). It is critical to highlight that within the digital event experience realm; there is a switching of roles to active spectators and passive participants, where this prior notion of what is passive and what is active in the context of the experiencing of events requires some clarification and redefinition (Bolan, 2014). It is this evolving experience which this design seeks to explore.

With the aim of exploring both groups through a netnographic approach initially, the researcher made an entree following negotiating permission and gaining subsequent ethical approval. An entree was made on each page (see appendix 4

to view representation, text and dialogue of this step). Some early piloting of netnographic process was applied to both pages resulting in significant engagement from the larger spectator event page but little in the context of the participant event (CCGolf). As a result, it was decided to continue the study through a blended netnography which facilitates both online and offline data gathering and ensures representative data for the evaluative phase of the research design (Kozinets, 2015).

4.6.7 Sampling Process – Projective Reflective Analysis

The sampling process this study followed for the application of projective reflective analysis of the event app experience was chosen to identify the app experience outcomes sought by spectators of events. It utilised self-selection as a sampling means through the provision of an interactive reflective instrument serving a platform API to fans of the NW200 event experience. Perspective was adopted from Saunders et al. (2012) who highlight the impracticalities, budget and time constraints which often constrain research practice and necessitate a more focused design. Additionally, as posited by Becker (1998), the sample should be representative of the full set of cases which are being considered and is done so in a way that is meaningful and which is justified in understanding the things themselves (Smith et al., 2009), the very phenomenon of digital event experience through app use.

Participants self-selected from within the NW200 Facebook fan page to participate in the process and by logging in using the polls API. This provided access to some general profile information to allow to validate participants and to contextualise further with some limited demographic detail but provided a rich opportunity for further netnographic analysis through observation (Kozinets, 2010). There are some factors which must be considered in relation to a potential self-selection bias such as the potential of over-representation of sub-groups (Khazaal et al., 2012). The benefit of access to fans from wider geographies of the event, more difficult to reach and engage as well as the potential to elucidate experience outcomes from engaged fans was deemed significant and justified for

sample selection (Fenner et al., 2012). Further details of the sample of 116 participants is provided in chapter 5 where the findings are further unpacked.

4.6.8 Data Collection and Analysis

The research design leveraged a concurrent data collection process across three major strands. These included the initial netnographic approach and projective reflective analysis of app artefacts carried out with 116 participants followed by an Interpretative Phenomenological Analysis (IPA) of online focus groups on Facebook. These data collection methods were bolstered with data pertaining to event app satisfaction collected across a 2-year period as well as data collected through semi-structured interviews with key stakeholders, professionals and academics with critical event insights.

To explore app artefacts in a netnographic manner, the Polls API was implemented within the NW200 Facebook fan page and responses were sought relating to the research question of what the critical experience outcomes are, sought of international events, at a time of increasing connectivity of society through technology. The study presented images as 'app artefacts' which facilitated personifying of steps of app engagement in its current form and against the contexts of push information, navigation, social connectivity, personalisation and experience preferences. Appendix 5 provides a visual representation of the online presentation of this research tool.

Results were subsequently thematically explored and systematically analysed using NVivo 11 and focused on the process espoused by Braun and Clarke (2006) for interpreting qualitative data. This in-depth and systematic approach involved three major stages, namely:

1. Familiarisation with data through immersion and the seeking of meaning;
2. Generation codes which organise data into meaningful groups and finally;
3. The searching of themes for descriptive nature through further analysis toward analytical themes.

The themes were inducted from the projective analysis, and subsequently, themes were deducted through the literature review and applied through the

Digital Event Experience Diagnostic and Development (DEEDD) theoretical framework which was constructed of short words/phrases (Braun and Clarke (2006). The codebook and a sample of screenshots from various points of this initial stage of the research process can be viewed in Appendix 6.

4.7 Phase 2: Interpretive Phenomenological Analysis (IPA) of Secret Facebook Focus Groups

At the heart of this research process is the interpretation of the digital event experience phenomenon as it is ever more impactful in an era of ubiquitous connectivity (Gretzel et al., 2015a; Buhalis and Leung, 2018). As revealed in the literature review, the subjectivity of experience requires a nuanced appraisal to assure understanding of the sense-making at play where technology is impacting experience (Tussyiadhah, 2014a). According to Smith et al. (2009, p.3), IPA provides just such a method to assure detailed examination of the digital event experience phenomenon as “it wants to know in detail what the experience for *this* person is like, what sense *this* particular person is making of what is happening to them.”

It has been more often used within health and social sciences to unlock meaning and understanding and has been successfully applied in assessing sport (Singer, 2009) and music (Kelleher, 2012), in relation to understanding the opportunities and challenges of varying participation perspectives.

IPA is most often used in systematically exploring interview data as a means for researchers to integrate data and iterate notes to categories, themes (super and subordinate) into a model explaining the participant-driven processes at work (Maykut and Morehouse, 1994). With justification, Thompkins and Eatough (2010, p.258) reflect on the use of IPA with focus groups and note that “it’s not simply a question of how; it is also a question of why. It is not just at the practical, procedural level that adjustments have to be considered.” This is an important point and merits critical analysis in employing the technique, as with this study, on online focus group data.

Online focus groups provide a unique and distinct set of data given that multiple conversations can be ongoing. Politeness and order are less inhibited and as such silos of individual reflections are created which are repositories of individual experience (Lijadi and van Schalkwyk, 2015). Accessibility is also an important benefit in this study, given the digital habitus under review (Kozinets, 2010). Limitations of participant access or descriptive capability are somewhat less of an issue given the double hermeneutic process of IPA where the researcher's sense making of the participant's endeavours to unpack their own experiences, provides more context through the netnographic approach. This is further supported through access to additional data and observation of digital selves through netnography; a means to facilitate thick description (Smith et al., 2009).

In summary, in addressing the concerns of Thompkins and Eatough (2010) around the sense-making of individuals as well as on potential relational and discursive elements produced through focus groups, it is argued that online focus groups on platforms like Facebook, can facilitate a hybrid of individual and group experience. This creates a much richer data set and immersion opportunity for the multiple stages of IPA employed. Additionally, the use of NVivo - a computer-aided qualitative data analysis system (CADQAS) which allows for systematic processing of analysis to be applied, ensures a rigorous approach and significant audit trail of actions taken. This is arguably the most important criteria for trustworthiness and plausibility of a study (Drisko, 1998). Table 4.3 outlines the key steps in the IPA and how these were used in conjunction with NVivo, supporting Smith's (2008) guidelines for data analysis and interpretation.

Table 4-3 Steps in IPA utilising a systematic approach in CADQAS Software

Analytical focus - IPA (Smith et al. 2009)	Nvivo Process
1. Reading and Initial Noting	Nodes (open codes) created in NVivo – first pass, iterative process of code and re-code both reflexively and interrogatively.
2. Open Coding	Capture summary of overall description and content – supported/journaled with rich descriptive comments.
3. Categorisation of Codes	Category folder holds copy of open codes for the participant in-tact. Broader categories from re-ordered codes through parent and child nodes.
4. Coding on	IPA strategically focused to create superordinate themes for coding clusters and assess linkages or evolve into emergent themes.
5. Data Reduction	Consolidate codes and compare/contrast in a matrix to facilitate cross-case and in-case analysis.
6. Analytical Memos	Accurately summarise higher level themes through analytical memos and propose empirical findings against categories.
7. Validation	A period of testing, validating and revising memos to explore data beyond textual quotes to support/expand stated findings through embedded meaning.
8. Synthesis of Analytic Memos	Synthesis of analytic memos into cohesive, coherent and supported findings offering a descriptive account of study participants' views and perceptions.

4.7.1 Approach Rationale - Netnographic

Netnography is arguably the most suited research approach to analyse online connections and alignments as it is there that increasing changes to our social behaviours, citizenship, consumption and community integration can be assessed (Kozinets, 2010). In adopting online focus groups as the means of gathering data relating to the evolving digital event experience, it is critical to highlight the rationale which serves to present the method as most appropriate. Facebook has been a phenomenon of note for some time (Hudson and Hudson, 2013). In their study, Wilson et al. (2012) highlighted 412 journals which had researched the Facebook phenomenon by that point. The ability to explore the realm in naturalistic ways and to test hypotheses and tap into significant populations of users make it an attractive area for applying studies (Lijadi and van Schalkwyk, 2015).

Adapting the method employed for delivering Secret Facebook Focus Groups (SFFG) by Lijadi and van Schalkwyk (2015), has provided an appropriate and tested framework through which to reach event participants. This is particularly given the potential geographic spread of attendees of international tourism events, who are often hard to reach in post or pre-event instances and arguably when immersed in the experience also (Morgan, 2007b). Secret groups on Facebook are an invite-only area where confidentiality is the driving force allowing people to feel more secure in sharing their information, thoughts, views and opinions on the special interest of the group.

4.7.2 Research Design and Sampling Process– Secret Facebook Focus Groups (SFFG)

The process of initiating these particular online focus groups began in applying for ethical approval to study participants through such netnographic means. Research processes were assessed across a number of online focus group practices and interdisciplinary protocols (Stewart and Williams, 2005; Ronay and Egger, 2013; Stewart and Shamdassani, 2017), and subsequently the method of delivering Secret Facebook Focus Groups (SFFG) presented by Lijadi and van Schalkwyk (2015) was adopted and adapted (see appendix 7 for group page sample providing an example of format, style and type of interactions).

Activities then focused on creating the circumstances with event partners to assure supporting outcomes from fan engagement and focused on the research objective of assessing how co-creation can improve the event app and ultimately the event experience (Horbel et al., 2016). It was felt important to explore this, particularly against the perspective presented by Pettersson and Getz (2009, p.312) who propose that it is theoretically impossible that “desired experiences can be designed and delivered, like products as the nature of experiences are highly personal, internal, and difficult to measure.”

Arguably, the digital event experience is more homogenous and offers potential for measurement, given that analytics can be a designed integration, and engagement is somewhat more auditable at the very least (Koo et al., 2016).

Contingent on this reality, there are still significant opportunities to apply design principles and design thinking to critical elements of programming, setting, context, technology, service experience and peer to peer activity around the event journey (Berridge, 2014b). When focused on the experience as a whole, Tussyadiah (2017a, p.183) argues the importance of a holistic understanding of design's impact on all stages, "from pre-trip to post-trip. "It is an integral part of what tourists will enjoy, reflect, and derive meaning from."

Thus, questions were created to allow for reflection across any stage of the digital event experience and as such, provided a starting point from which participants could tease out the granular elements of their preferred experience and explore what they perceived would improve that experience (see the full list of questions in appendix 8). Building on the focus group question framework for product development proposed by Krueger and Casey (2002), an adapted set of questions was served, and responses explored with meaning and subjective nature and collective insights sought (Morgan, 1997; 2007b).

The processes of conducting the SFFG's were adapted from Lijadi and Schalkwyk (2015) study giving a structured and systematic approach to build on. An initial pilot SFFG was conducted successfully with Ulster University students from 30th September 2016 to 10 October 2017. The selection of this group provided significant realism and ensured the integrity of the pilot as although they were not traditional fans; they had familiarity with the event due to having been developing a digital strategy for the NW200 event as part of their final year undergraduate course. This provided a suitable test bed for engagement, protocol testing and to explore the administrative requirements to conduct a suitably immersive experience gathering exercise via SFFG, tapping into the thoughts, ideas and aspirations of participants (Tomkins and Eatough, 2010). This initial stage highlighted the challenges of engaging with a variety of levels of event participation and assisted in forming suitable strategies for gaining deeper insights through probing and further unpacking of inputs and conversation threads (Lijadi and Schalkwyk, 2015).

Porting of content from Facebook to NVivo was achieved through using the program's plugin NCapture which did provide a suitable mechanism to import the

data with relative ease into the NVivo database. In the subsequent 5 SFFG's, and through learnings from the initial pilot, data were also captured in Pdf format and time was spent to ensure all comments were available. This required opening the post up by clicking on the time/date link on the header and subsequently a time-consuming process of clicking 'more' on each comment where present. Although time-consuming in nature, these visuals are critical in viewing the data flows as they happened, providing context and supporting rigour. The database created through NCapture is less recognisable with more focus on the word, often sets of individual meaning units (Maykut and Morehouse, 1994) and thus it is useful to explore the data 'as was' in the IPA process.

Recruitment was through purposive sampling from participants who had completed the 'App Event Satisfaction Survey' which was carried out post-event in 2016. This had a positive impact and added validity on three counts. Firstly, through prior knowledge via the sign-up process, participants had a sense of group belonging (Barker, 2009). Secondly, having participated in the prior survey, it assured that interviewees had experience of using the event app and could be vetted as such. Finally, using interviewees who had participated in the survey offered a further comparative opportunity for post-study (Creswell, 2013).

Participants were contacted by email and/or through Facebook and asked to complete a further online ethical approval stage (see appendix 9) before being eligible for inclusion. Of the 182 participants in the first app event survey, a total of 56 prospective interviewees completed participant consent and were eligible for the SFFG's. Groups were stratified by gender as this was felt to reduce any potential dominance of exchange, particularly given the largely male fan base of the event (Tracy, 2013). Following on from the pilot, three male SFFG's and two female SFFG's were conducted between October and December 2016. The shortest being ten days from initiation to completion (SFFG 4 female) and the longest being 11 days. See Appendix 10 relating to the scheduling, management and timing of SFFG sessions. The inducement provided for participation was a weekly pass to visit the event which retails at the cost of £55 prior to event week.

The first (post-pilot) SFFG was initiated on the 10th October, and the final SFFG completed on the 12th December. Of the total 34 who complied with study pre-

requisites and were recruited to participate, 29 participated in all questions and summaries. Some challenges were encountered across the following areas of the delivery of the method:

1. Technological: challenges related to linkages between extracting data through NCapture which was periodically problematic and required debugging.
2. Sociological: some groups seemed less responsive comparatively.
3. Commitment/Distracted: some members often difficult to reach.
4. Focus: several members over-used the platform to vent on other event experience frustrations.
5. Time/Space: the process often requires a researcher to be available to the interviewees in less traditional timeframes to facilitate contact (early am/late pm).

Ultimately though and concurring with Lijadi and Schalkwyk (2015), in the majority of cases, using secret groups was successful as participants reveal their interests through their digital persona before any discussion through others engaging their profile data. This seemed to engender cordiality with “everyone being friendly, open to exploring the topic, personally involved, and without restraining themselves when expressing both pleasant and unpleasant memories.” (Lijadi and Schalkwyk, 2015, p.5).

4.7.3 Data Collection and Analysis Post SFFG

With the objective of designing and undertaking a disciplined and systematic process of data analysis whilst also recognising the multifaceted nature of the data under review and the interpretative nature of the study, it was critical to engage in a process that encouraged impartiality and completeness in review (King, 2004). As Smith et al. (2009), posit, IPA offers discipline and system with the flexibility to adapt and move from idiographic (the particular) to the shared and from descriptive to hermeneutic (or interpretative).

To carry out an IPA process following the integration of the SFFG data with CADQAS (via data importing, logging and management), protocols first related during NVivo training were employed (QDA Training, 2014). The study proceeded, concurring with Fielding and Lee (1998, p.167), who explain that qualitative researchers “want tools which support analysis but leave the analyst firmly in charge.” NVivo 11 for windows and mac was adopted and used to provide an audit of the analytical process (See appendix 12 for details).

Table 4.3 highlighted the explicit steps adopted in the process of IPA through NVivo and is adapted from Smith et al., (2009). The table denotes the eight distinct steps taken in this iterative process of data analysis. Each step falls within three overall cycles of coding of which one is for initial coding, and the subsequent cycles are for categorisation of open codes followed by a phase of data reduction and consolidation (Hennink et al., 2011).

This phased approach concluding with code consolidation assures themes (sub and superordinate) which support the generation of an abstract theoretical framework at its conclusion. Within this cycling of processes, writing is used through analytical memoing as a means to prompt deeper thinking on the data (Bazely, 2009).

IPA offers a significant opportunity for researchers to characterise the key elements of the phenomenon of study and to understand through elucidation what is the human conscious lived experience (Smith et al., 2009). Critically, in its analysis, it is psychological through meaning-making and being faithful to Heidegger and used hermeneutic interpretation to achieve a holistic encounter with individual and group interactions (Pernecky and Jamal, 2010). In carrying out the analysis through SFFG's, the issues of managing the part, whole part phases of analysis, although time-consuming, provided a rich vein of conceptual meaning through which to progress the study (Hennink et al., 2011). The following section presents the steps and procedures involved in the third method of study, namely semi-structured interviews. These are adapted from the approach adopted in stakeholder collaboration by McCabe et al. (2012) in exploring destination competitiveness in the emerging paradigm of ubiquitous connectivity (Buhalis and Amaranggana, 2013).

4.8 Phase 3a: Semi-structured Interviews of Event Stakeholders and Specialist Academics

Getz (2008a, p.417) highlights the importance of utilising semi-structured interviews as a means of exploring the planned event experience and its meanings. This, as well as linked to how the internet and social media are used for 'decision making in the events sector'. This approach was deemed appropriate, particularly around exploring antecedents and choices.

This section presents the processes adopted in conducting these semi-structured interviews with stakeholders of the events, as well as interviews with leading academics related to shaping theory around the experience from related disciplines. The interview instrument was developed ensuring critical consideration of several key protocols (Tracy, 2013). Galletta (2013) highlights the potential of using interviews as a means to explore the lived experience and to explore extant theory with more relevance to real-world contexts. Complying with these protocols to facilitate this immersion, a set of questions were developed as open-ended, focused, non-dichotomous, clear and where possible, avoiding jargon (Turner III, 2010). Thus, questions were developed supporting the following constructs:

- a) Open-ended questions, not leading towards pre-defined answers;
- b) Non-dichotomous questions to avoid yes/no answers;
- c) Neutral questions that would not favour certain responses;
- d) Questions that contain one idea at a time and;
- e) Clear questions that avoid jargon.

Following introductions and an opportunity for the participants to share their current role and experience, a series of 5 questions were served relating to smartphone use, the event app, the potential of the app to support their objectives and how this was achieved. The script for conducting the interview can be found at Appendix 13. In attempting to create a comparative opportunity with consumer perspectives, several of the questions served following this introductory phase were those presented within the projective reflective analysis which was

presented to participants in phase 1 of the research process (Tussyadiah, 2017a). This served to further explore the data through corroboration and with cross-validation of insights (Creswell, 2007). By presenting the same images related in phase 1 of the study, “interviews followed a semi-structured interview guide aimed at gathering information on how the implementation of a smart approach is influencing the co-creation of experiences (Buonincontri and Micera, 2016, p.298).”

Additional perspectives were sought on what impact this is having regarding stakeholders of tourism events, given the scale of ICTs impacting the tourism and event experiences (Neuhofer et al., 2016a).

4.8.1 Approach Rationale – Semi-Structured In-depth Interviews

In applying semi-structured interviews, we are offered a means of gaining more context in exploring the research question of *what holistic model of engagement can be created to improve experience outcomes for event spectators in digital contexts*. McCabe et al. (2012, p.42) propose that:

“in an emerging era of ubiquitous computing, the prospect of destination competitiveness being reliant, at least in part, upon the provision of mobile services to enhance the visitor experience is very real. Collaboration between stakeholders in this ‘always on’, ‘always here’ culture will be vital.”

This is particularly relevant as events are often considered as mini destinations in their own right (Ziakis and Boukas, 2013). They exist within an ecosystem of providers feeding into them in terms of context and structure of visitor experience (Gretzel, 2015b). Therefore, the exploration of stakeholder thinking is vital in relation to applying and integrating with smart tourism contexts and thus is critical to gain understanding (McCabe, 2012; Koo et al., 2016). As Buhalis and Amaranggana (2013) would suggest in their seminal paper on smart tourism destinations, the potential to integrate stakeholder objectives within an interoperable and open platform creating value and enriching experiences is an opportunity for all involved.

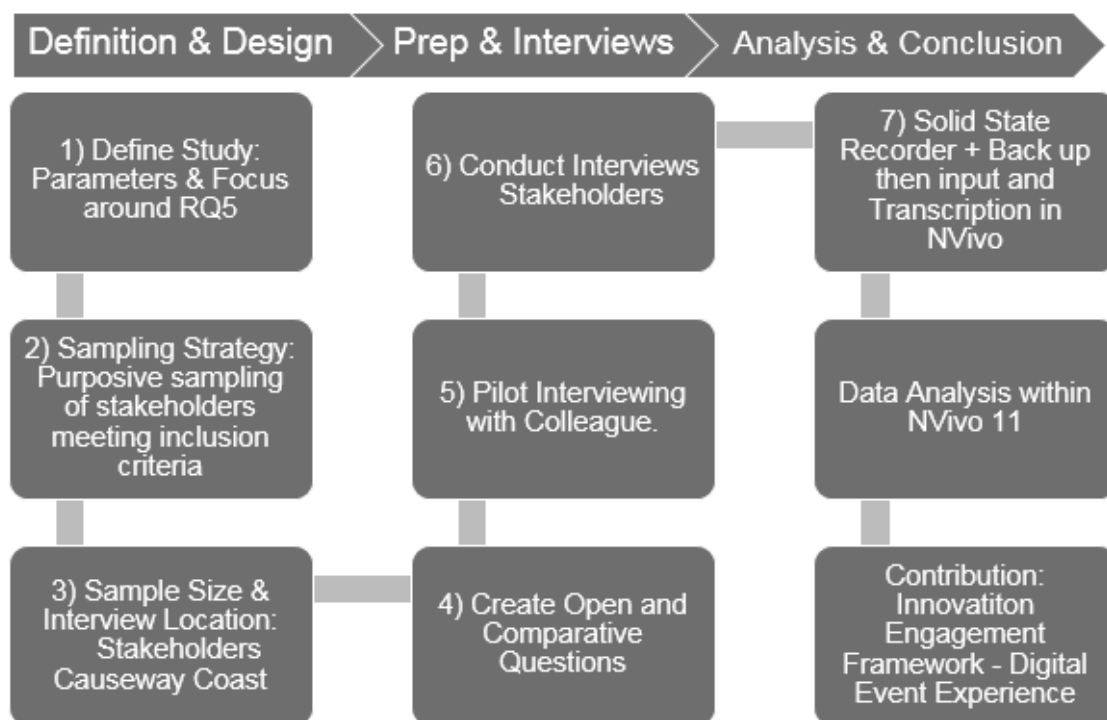
4.8.2 Research Design and Sampling Process - Semi-Structured in-Depth Interviews

The research design encompassed some specific areas considered critical for successful sampling and implementation (Turner III, 2010). Firstly, clarity on the purpose of the study, which assured appropriate definition of the study questions. In this phase, this formed through focusing on research question 5 which enquires *‘what holistic model of engagement can be created to improve experience outcomes for event spectators at Tourism Events?’*

This is explored in the context of an integral element of the Smart Tourism paradigm (Gretzel, 2015a) namely smartphones and ubiquitous connectivity, underpinned by the importance of ‘special events’ as part of Smart Tourism Destination Competitiveness (Koo et al., 2016).

The following diagram serves to relate stages and the process adopted in delivering this study.

Figure 4-4 Stages and Process of Semi-Structured Interviews



The sampling strategy adopted was a focused and purposive sample ensuring that participants fulfilled key criteria for inclusion (Creswell, 2003). Critical to this sampling strategy was choosing appropriate candidates, with targeted experience and knowledge which is too complex to attain through random

sampling. Moreover, seeking participants with experience of international events from varying perspectives and who perceive themselves as stakeholders at some level was also foremost (Creswell, 2007).

An initial sweep of the NW200 event was carried out, and appropriate candidates were identified across a range of stakeholders including event-specific full and part-time service providers, sponsors, merchandisers as well as local hospitality and retail providers. In addition to these stakeholders, interviews were conducted with event management professionals (full and part-time) and academics with events, technology and Smart Tourism knowledge. The full list of interviewees and a sample of the interviewee consent form can be viewed in Appendix 14 and details of the questions asked can also be viewed in Appendix 13.

In relation to sample size, in this instance attention was paid to the type of this study, which is phenomenological and interpretivist in nature. Thus, concurring with Guest et al. (2006), who suggest that studies can range from phenomenological studies of six participants to many more in ethnographic studies, identification of ten key contributors was sought to fulfil this sample. The necessity to target those meeting the requirement of exploring the creation of an innovation engagement framework was based on the current experiences of multi-disciplinary stakeholders' in perspectives of ICT and mobile use at events. This ensured significance regarding the study of phenomena such as smartness in event experience contexts (Gretzel et al., 2015c; Koo et al., 2016).

In concluding preparation and piloting of the initial interview process, the study proceeded. Upon selection of the sample and identification of key informants, the study concurred to the eight principles presented by McNamara (2009) around conducting interviews which include a focus on:

- 1) Interview location selection - seeking at reducing distractions;
- 2) Sharing the purpose of the interview;
- 3) Presenting the confidentiality elements and gaining (signed) approval;
- 4) Giving an overview of the interview format;
- 5) Indicating approximate interview timings;
- 6) Providing follow up contact details to empower comms. post interview;
- 7) Checking if there are any questions before proceeding and

8) taking notes during or after the interview to ensure easier recall.

4.8.3 Data Collection and Analysis

A total of ten semi-structured interviews were carried out, and audio files were imported to NVivo and transcripts were created (Meehan, 2017) for each interview around key insights related to the development of a model of engagement placing hyper-connected events in Smart Tourism Destinations contexts. Interviews ranged in length from 1 hour and 32 seconds to 21 minutes and 48 seconds. Data was administered, managed and explored with the aid of Miles et al. (2013) practical guide to qualitative data analysis. Fielding and Lee (1998, p.167) argue that qualitative researchers “want tools which support analysis, but leave the analyst firmly in charge”, and NVivo facilitates this processing more than adequately.

For all of the recordings, a Zoom 2 solid-state device provided the main recording facility, direct to SD card. The device is robust and has a more than adequate battery range. As a backup, the iPhone 6 plus was on hand with a voice recorder app. The final recordings were of academics - one who majored in Event Studies, one a Tourism Technologist and one a Smart Tourism expert. These interviews were conducted over Skype and were recorded with both the Zoom 2 solid state recorder as well as using QuickTime player (version 10.4) which facilitates recording through the internal mic and records all sound of the two-way encounter.

Following filing and administration of materials through data management protocols (Miles et al., 2013), content was ported into NVivo version 11 (Windows) with appropriate files created in preparation for transcription. NVivo provides a time efficient and practical suite of tools to allow transcription and the scaffolding and annotation of ideas to co-develop (QDA Training, 2014). Crucially, software use also serves well as a tool for transparency as it produces an audit trail of the process and as such assures trustworthiness and plausibility of the study to reviewers and supervisory as part of implementing a rigorous research design (Meehan, 2017).

The methodology for data analysis adopted for this part of the study was based on thematic analysis principles (Braun and Clarke. 2006). Exploration of themes was underpinned with perspectives such as those of Maykut and Morehouse (1994, p.18) who remind scholars that "words are the way that most people come to understand their situations; we create our world with words; we explain ourselves with words; we defend and hide ourselves with words."

It therefore followed, in qualitatively analysing this data, that the study adhered to their suggestion that:

"the task of the researcher is to find patterns within those words and to present those patterns for others to inspect while at the same time staying as close to the construction of the world as the participants originally experienced it (Maykut and Morehouse, 1994, p.18)."

Themes were abstracted, meaning assigned and data explored to assist in developing an appropriate model to answer the guiding research question, '*what holistic model of engagement can be created to improve experience outcomes for event spectators and participants?*' This was achieved utilising Braun and Clark's (2006) thematic analysis approach:

1. Familiarising yourself with the Data;
2. Generating Initial Codes;
3. Searching for Themes;
4. Reviewing Themes;
5. Defining and Refining Themes; and
6. Producing the Report.

The following section will present the embedded evaluative quantitative element of the study which focused on the question '*will co-creation of the event app experience through social media with the spectators of an international event improve satisfaction in the event experience?*'

4.9 Phase 3b: Embedded Quantitative Analysis of Digital Event Experience

Mixed methods research in the study of event experiences has been appropriate and critical to its development, particularly necessary as it requires grounding in theory (Getz, 2008a; Berridge, 2014a). Mixed methods research has been

applied to exploring the event experience on a number of occasions in the recent past (Kaplandou and Voght, 2010; Nordvall et al., 2014; Lai, 2014; Hudson et al., 2015; Jonson et al., 2015; Emery et al., 2016; Sweeney and Goldblatt, 2016). It is in this vein that further development of this research is focused by utilising Mixed Methods Phenomenological Research (MMPR) to explore the event experience in contemporary contexts. The study of the event experience phenomenon is justifiably rich to consider from human perspectives and critical to the development of events theory (Getz, 2008a; Berridge, 2012a).

In presenting the case for utilising an embedded concurrent mixed methods research strategy, Creswell (2007, p. 214) highlights the critical factors which make this approach attractive. Using the concurrent approach ensures that:

“a researcher is able to collect the two types of data simultaneously, during a single data collection phase. It provides a study with the advantages of both quantitative and qualitative data. In addition, by using the two different methods in this fashion, a researcher can gain perspectives from the different types of data or from different levels within the study.”

As Morse (2003) highlights, the ability to enrich description of participants of a mainly quantitative design with some quantitative data is significant and useful. It also allows (as in this instance) the opportunity to measure how participants in an experimental process, experience the outcomes of the procedure (Creswell, 2007).

Embedding a quantitative element within a larger study is evidence of how the concept of ‘experience management’ is evolving (Morgan, 2007a). As such, the method further anticipates the seeking of quantifiable understanding and ways to ensure the customer’s experience within an event and the strategic planning, marketing and operations of those events, are equally aligned and measured (Geus et al., 2013).

Event experience satisfaction is clearly a central construct in literature and offers a measurable outcome sought by participants throughout the experience journey (Morgan, 2008; Berridge, 2012a; Geus et al., 2013; 2014; Kinnunen and Haahti, 2015). Assessment has been carried out focusing around experience satisfaction in many contexts, yet the area of technology and its impact on the event

experience is rather less explored and offers significant opportunity for development (Hudson and Hudson, 2013; Luxford and Dickinson, 2015).

In utilising MMPR as a means of developing better insights of the digital event experience, it is critical to highlight that there is not universal agreement on the mixing of methods as a viable design. For example, Sale et al. (2002, p.47) posit 'how can the results be similar if the paradigms are supposedly looking at different phenomena?' Their perspective is dominated by the opinion that phenomena under study cannot be consistent within qualitative and quantitative paradigms and thus incompatible. This belief is one which authors like Creswell (2007, p.203) defend against by highlighting that in the case of complex research issues of the social sciences, "the use of either quantitative or qualitative approaches by themselves is inadequate to address this complexity." The opportunity to expand understanding of these research issues within Event Studies, particularly where these 'spatial—temporal phenomenon' are never the same, offers the bounty for researchers to evolve this perspective (Getz, 2008a).

4.9.1 Approach Rationale – Quantitative Analysis

In presenting the expanding potential of experience design in tourism Tussyadiah, (2014) highlights the concepts of human-centeredness, the concept of holistic experience and the concept of iterative process, as a means to frame design research to enable experience development (Tussyadiah 2017a). The evaluative phase of this research design has been applied across a two-year period including two international events and measures satisfaction around an improved event experience as a result of the use of an event app (comparing spectator experience in one and participant in the other).

4.9.2 Hypothesis Introduction

This evaluative element is utilised to increase our understanding of the general impact of co-creation practices on the digital event experience. Literature provides examples of the satisfaction derived through successful co-creation processes by direct participants of the process, but evidence of wider benefits of co-creation are less available (Rihova et al., 2015). As Tussyadiah (2014, p.553)

posits, experienced-based survey tools “can also be effective to understand tourists’ experiences, especially when combined with other tools to verify the reflection and interpretation of experiences.”

Research by Neuhofer et al., (2016b) into the technology-enhanced tourist experience has offered a significant contribution to the understanding of the impact of ICTs and their facilitation of co-creation opportunities. Indeed, the depth of those studies and the requisite knowledge produced and displayed through the Matrix of Technology Enhanced Tourist Experience Co-creation, has offered a suitable lens to understand the current position of the digital event elements in this study. From an Event Studies perspective, there is still little evidence to assess event fans and participants around their satisfaction of co-created event elements (Gyimóthy and Larson, 2015).

Critically, by using the framework proposed by Tussyadiah (2014; 2017a) around experience design, this study addresses this fundamental evaluative gap by measuring whether the experience improved post-intervention. As Binkhorst and van Deckker (2009) highlight, co-creation is a significant and escalating unique differentiator for experiences and as such, digital offers a distinctive opportunity for continuing research design around human-centeredness. This can be achieved using iterative process and the concept of holistic experience (Tussyadiah, 2014) whilst assessing the impact of co-creation subjectively (Edvardsson et al., 2011).

4.9.3 Hypothesis Development

Linking to the literature in chapter 3, the following hypotheses are developed to test the validity of the study objective ‘*will co-creation of the event app experience through social media with the spectators of an international event improve satisfaction?*’

Hence the following hypotheses have been developed in the context of comparing outcomes at two different events which have updated the event app experience. Event 1 (NW200) by using fan engagement through social media in focused co-creation of the event app and Event 2 (CCGolf) by synthesising

survey responses and updating based on commonly perceived and achievable updates. Both events are constrained by using the same platform and a re-design budget each (£50 for User Interface screen updates) and operating resource. You can see an example of the outcomes of these design restrictions on NW200 in appendix 15.

H1: There will be significant differences between year 1 and year 2 in relation to satisfaction

H2: There will be differences between year 1 and year 2 in relation to enhanced experience

H3: There will be differences between year 1 and year 2 in relation to positive description of app

H4: There will be differences between year 1 and year 2 in willingness to pay for the event app

H5: There will be differences between year 1 and year 2 in returning to the event website

H6: There will be differences between year 1 and year 2 in the app helping research the local area

To both manage and achieve a suitable outcome for this evaluative process, a repeat cross-sectional study design was implemented (Richie et al., 2009). This approach allows for a sample to be drawn from events across a 2-year period and in such a manner as to evaluate responses independently as well as specific to the co-creation processes enacted to improve the event experience (Horbel et al., 2016; Raj et al., 2017). In this instance, both digitally and in-person for one event. The following section presents the design elements specific to this repeat cross-sectional study.

4.9.4 Research Design – Repeat Cross-Sectional Study

Guidance for the creation of this repeat cross-sectional study was garnered from a recent application by Wong and Sang (2015) who delivered a cross-sectional study of a similar motorsports event - the Macau Grand Prix, where they used a single item scale to measure certain constructs. In addition to using single-item measures, the survey also met with criteria outlined by Fuchs and Diamantopoulos (2009), who suggest four focal criteria for their use, being a) the construct's nature; b) the nature of existing instruments; c) the objectives of the research; and d) considerations relating to sample.

Adopting a single item approach is not without its challenges in terms of ongoing discourse around validity and reliability. In concurring with Fuchs and Diamantopoulos (2009, p.205) "if the construct is only of secondary importance in the study setting (e.g., is used as moderator, validation, or control variable), the employment of single-item measures can be justifiable."

Kwon and Trail (2005) assessed satisfaction with elements of event experience and contingent behavioural loyalty towards the sports experience. In assessing satisfaction with the event app as an evaluative measure in an ever-evolving experience-scape, simpler measures were adopted to understand event veteranicity (number of times one has participated in the event), satisfaction with the event app, user behaviour, support for digital event elements and opportunities for further service engagement (Raj et al., 2017).

In contrast to the Macau Grand Prix study, this one focused on two events with one of those events in particular, (Causeway Coast Amateur Golf Tournament) having a limited population size. Registered entry of n=525 in 2016 according to RPGC, (2017). A further difficulty was encountered whilst attempting to access these event participants through an initial attempt to explore insights solely through a netnographic approach. This proved insufficient, and an alternative method of administering the same survey was adopted through in-person sampling on-site during event week (Tracy, 2013).

4.9.5 Data Collection and Analysis

The first survey was presented to event fans of the NW200 via the event's Facebook page and was integrated using the Poll API. The survey was completed by a total of 182 participants in year one and 167 in year two. An equivalent survey was administered face to face by the researcher following initial online training and in paying attention to survey protocols as presented by Creswell (2013). The face to face surveys of participants of the Causeway Coast Amateur Golf Tournament generated responses from approximately one-fifth of participants (95 respondents' year one and 105 respondents' year two).

The online and offline survey tools can be viewed in Appendix 16. As a means of reducing sampling bias around the in-person survey, participants were sought on completion of each day of their event when completing administration duties. Data was collected from both event samples using an approximated survey for solid comparison and was administered in 2016 and 2017 respectively.

Data was collated, cleaned and input into IBM's SPSS statistics package and assessment was carried out across the 2-year period to assess the key construct of whether satisfaction with the event's app was impacted by co-creation activities enacted through social media (Pallant, 2013). These co-creation activities sought to improve the user experience within the constraints of using the same platform and within the same budgetary constraints. Both cross-sectional samples were measured for statistical relevance about reflecting the overall event populations. This was regarding demography across the period and as such provided some level of control (Wong and Tang, 2015).

In assessing whether a difference exists in the experience of users across both events post-intervention, a Chi-Square Test of independence was utilised (Gravetter and Walnau, 2016). Essentially, the Chi-Square Test of independence assists our understanding of perceptions on measures of satisfaction, enhanced experience, willingness to pay and focused on particular information needs and whether this differed between groups toward the event app post-intervention.

Additionally, through SPSS, further testing on gender-specific variation on results was analysed through both Chi-Square measures as well as Fishers's Exact Test where samples did not meet the required assumptions (Pallant, 2013; Gravetter and Walnau, 2016). The subsequent tests aim to determine whether there are differences by group dependent on gender within Event 1. Considerations and limitations of applying MMPR are now considered.

4.10 Considerations, Limitations and Justification for Mixed Methods

Phenomenological Research

In conducting a qualitatively led mixed methods research design assessing the digital event experience, it is critical to acknowledge and further explore the consideration and limitations of researching in this manner (Tracy, 2013). In particular, reliability and validity are highlighted as critical to a successful application and as such is further examined below (Holloway and Brown, 2012). Consistency and repeatability are critical facets of assuring study reliability (Saunders et al., 2009) and as such have been addressed by adapting prior methods albeit in an interdisciplinary manner.

In justifying the use of MMPR in the pursuit of a deeper understanding of the evolving digital event experience, focus is placed on the opportunity that such study offers in holistically addressing the phenomenological nature of event goes resource integration and value co-creation in this context (Ziakas and Boukas, 2013). Central to achieving the stated objective was a commitment to transparency and the adoption of rigorous processes to enact a suitable research design (Creswell, 2003). In adopting MMPR, the use of analytical tools such as NVivo and SPSS offered an audit trail as well as a systematic approach to the research process and as such assisted in directing researchers toward this common goal (Saunders et al., 2009; Meehan, 2017).

The achievement of reliability is further addressed through MMPR by employing reflexivity in approach (audited within processes through analytical memos) and ensuring adequate time to reflect on the potential areas of researcher bias (Saunders et al., 2009). This is where understanding is achieved through contextualisation and knowledge is generated through prolonged engagement

with thick description of data where triangulation opportunities are afforded by mixed methods approaches (Creswell, 2007). Indeed, in utilising MMPR as a means of generating validity, Rizq and Target (2010) contend given that MMPR is phenomenological at its heart, the qualitative data inducted provide an additional step in the study's overall analytic process. This invokes a triple hermeneutic that places the perspective of the researcher approximated to the participant's experience within a framework that has theoretical relevance (Smith et al., 2009).

Credibility is reliant upon transparency and is critical to assuring that procedures are thoroughly documented and available to enhance replicability (Tracy, 2013). This is of critical significance when delivering a mixed methods research approach given the complexity and commitment of the approach (Creswell, 2013). Steps were taken throughout to transparently discuss the process, share (through appropriate documentation) the approaches adopted, and reliability sought through data triangulation, code book transparency and provision. Supplementing this was coding reliability checks performed with supervisory and fellow researchers as advocated by Frochot and Batat (2013).

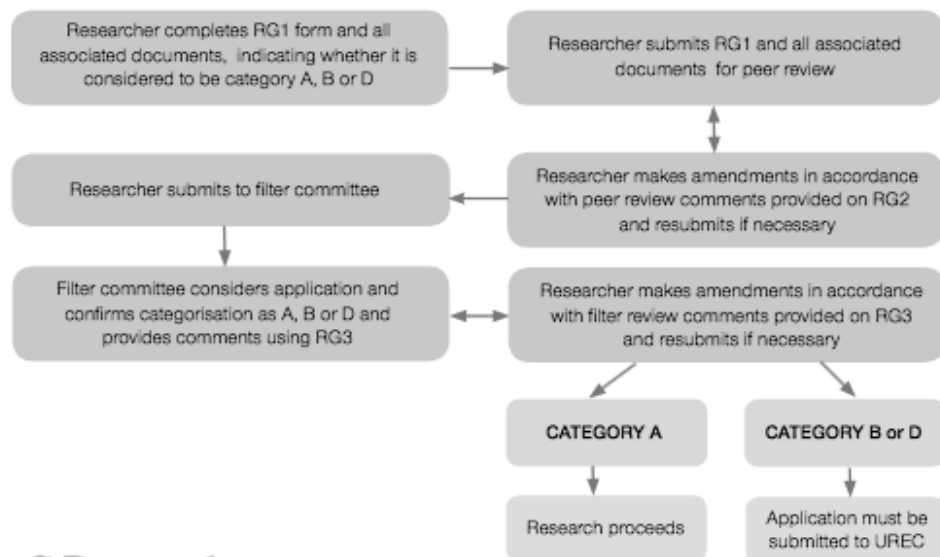
4.10.1 Ethics and Health and Safety Considerations

In conclusion, the consideration and application of suitable processes to assure the ethical management of participants and data are of paramount import (Miles et al., 2013). As such, the study was delivered within the parameters of Ulster University's ethics procedures, which provide for rigour and due process to be designed into the approach (Ulster University, 2015). Ulster University requires researchers to comply with the following to research humans. This, whether as a biomedical/physical intervention or of a psychological nature as with many survey-based studies, questionnaires or study through any form of data acquired from humans, even if anonymous. The following figure presents the steps required to ensure compliance with University policy which is governed by UK research legislation. Additionally, research of any kind involving human subjects must be peer-reviewed and then considered by the University Research Ethics Committee. This research design is categorised as A which has no clinical involvement, is conducted by students, excludes new methodologies, vulnerable

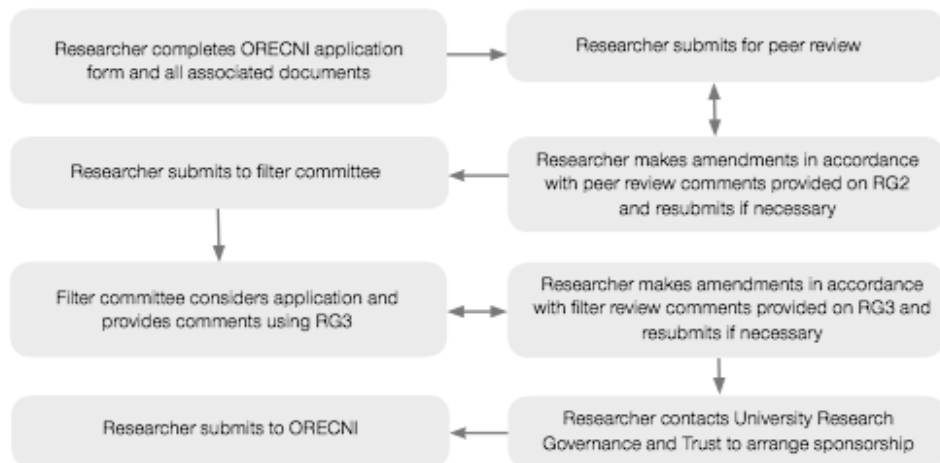
populations, therapeutic interventions and has no significant risk to volunteers or researchers (Ulster University, 2015)

Figure 4-5 Research Ethics – Process and Categorisation at Ulster University

Category A, B and D Research



Category C Research



Ethical approval was sought and achieved for this study in early 2016, and an adapted version of Kozinet’s (2010) ethical approach to the study of online communities was adopted. In complying with this process, the researcher performed ‘entree’ to both event’s online communities in early 2016 as can be seen in appendix 4. The approach adopts six steps of ethnography earlier espoused which include

- a) Research planning;
- b) Entrée;
- c) Data collection;
- d) Interpretation;
- e) Ensuring ethical standards, and
- f) research representation.

In relation to ethics, Kozinet (2010) suggests that firstly, the researcher is best to fully disclose their presence, intentions and affiliations, to community members during the research process. Secondly, the assurance of anonymity and confidentiality of participants should be managed and communicated, and finally, the researcher should seek and include feedback from the community being researched. In exploring the digital event experience phenomenon, this study ensured that these ethical considerations were appropriately managed and as such enriched the method and its applicability to the study of event experiences via online communities (Morgan, 2008; Hudson and Hudson, 2013).

With a focus on health and safety, the digital event experience was assessed and deemed as a non-sensitive or challenging domain of study requiring no extraordinary measures of precaution. Regardless of this lack of significant risk, the guidelines for ethical and risk assessment (Ulster University, 2015) were adhered to, and a risk assessment was conducted in compliance with the procedures outlined.

4.11 Chapter Summary

This chapter has presented the methodological process of study adopted. With a phenomenological and interpretivist approach tempered through a pragmatist's lens, this mixed methods strategy seeks to explore the evolving digital event experience through five critical research objectives. These objectives which focus the overall process are:

1. To explore the evolution of the event Experience and the impact of ICTs on co-creation;

2. To identify the app experience outcomes sought by spectators of events;
3. To explore how technology enabled MTM co-creation can improve the digital event experience;
4. To analyze the effect of technology enabled MTM co-creation of the event app experience through social media in the context of improving experience satisfaction;
5. To develop an innovation engagement framework to improve experience outcomes through technology enabled MTM co-creation of event experiences.

Adopting a three-phase approach in this mixed-methods phenomenological research design – the following phases of research were supported:

- Phase 1: Qual 1: Projective Reflective Analysis;
- Phase 2: Qual 2: Interpretative Phenomenological Analysis (IPA) of Secret Facebook Focus Groups (SFFG);
- Phase 3: Qual 3: Semi-structured Interviews of key Event Stakeholders and Quant 1: Embedded Comparative Quantitative Analysis Digital Event Experience element (App).

Utilising MMPR has offered critical access to new insights relating to the lived experience of spectators and participants of event experiences (Getz, 2008a). Critically, it has assisted in the development of a framework for the diagnosis and development of the digital event experience which will be unpacked further in the following three findings chapters, starting with chapter 5.

Chapter 5 FINDINGS I

5.1 Introduction

Subsequent to exploring the methodology employed in this study, focus is now placed on unpacking the overarching question of this thesis by empirically assessing *“how event experiences are evolving in an era driven by ubiquitous connectivity, personalised experience and through smart and social technologies.”* Critical to this understanding is a grounding in current theoretical perspectives. The literature review systematically approached the first objective of this thesis by gaining insight around *“how event experiences and experience co-creation is changing through MTM co-creation via mobile technology and ICTs in the pre-event, event experience and post-event phases”*.

The following chapters continue this journey. This chapter focuses on research question 2, seeking to explore the *“critical experience outcomes sought through technology enabled MTM co-creation by spectators and participants of international events”*. This is achieved through reporting the critical findings induced through event spectators ‘projective reflective analysis’ of the event app experience of the NW200 event (Tussyadiah, 2017, p.185).

The following chapter will then deepen this exploration by presenting the findings of an Interpretative Phenomenological Analysis (IPA) focused on research question 3, assessing *“how the event experience and the co-creation of the experience can be enhanced through technology enabled MTM co-creation from the consumer perspective.”*

Finally, findings from semi-structured interviews with event stakeholders and academic experts will be integrated and analysed in such a way as to address our research questions and gain a complete understanding. A discussion of the empirical findings and how these contribute to the development of several theoretical propositions related to the central research question of this PhD will conclude this thesis.

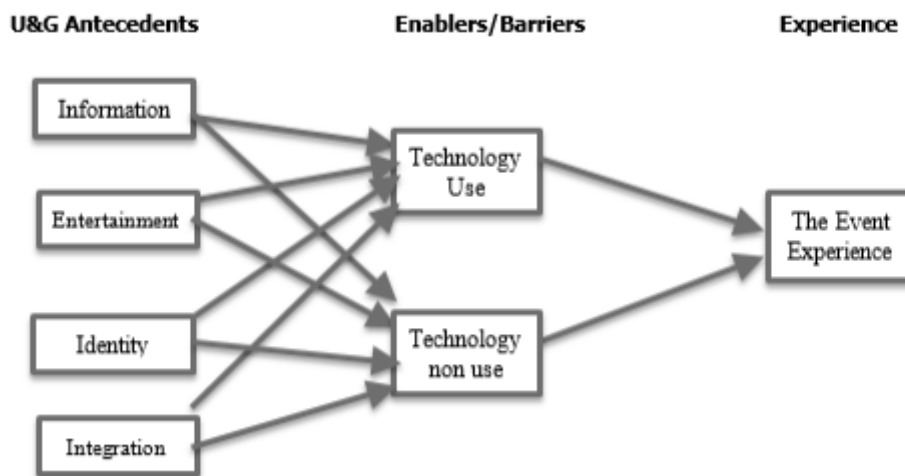
5.2 Overview

To reiterate the focus of this chapter, what is being asked is “*what are the critical experience outcomes sought through technology enabled MTM co-creation by spectators or participants of international events?*” This research aims to build on the warrant for further research highlighted by Getz and Page (2016), who discuss the need to conceptualise experiences regarding ‘three inter-related dimensions’ (Getz and Page 2016, p.608). These being the cognitive, conative and affective dimensions, which were earlier described in the literature review (Mannell and Iso Ahola, 1987). Therefore, understanding these impacts requires an evaluation of experiences through how they are lived, as a phenomenon, including the myriad meaning, influences and impact that these might have on future behaviour (Geus et al., 2016).

Proceeding with a focus on event fans awareness, perception and understanding of the digital event experience and aiming to identify meaning, focus is now directed through the Digital Event Experience Diagnostic and Development Framework (DEEDD). This was achieved through utilising the event app as an experience element for projective enquiry and through which to induce data rich in meaning and its subsequent influence on behaviour (Tussyadiah, 2016a).

The analysis focused on examining the event app experience through the proposed DEEDD framework which is presented again below in Figure 5.1.

Figure 5-1 Digital Event Experience Diagnostic and Development (DEEDD) Theoretical Framework



The DEEDD framework previously presented in section 3.8 and developed through the literature review, is appropriate given media consumption as an event activity tends to be self-directed, goal-directed and important regarding understanding what people seek out in communications (Rubin et al., 1994). The framework includes use and non-use of technology to provide for factors which lead to particular use and/or non-use outcomes (Hutchins, 2016; Neuhofer, 2017).

5.2.1 Sample and Approach

Data from the 116 participatory enquiries were elicited through projective reflective analyses focused on app artefacts, served through the poll's API via Facebook. These data, derived from event fans, were then coded based on U and G motivations and relevant TAM dimensions. Some instances of a statement being anchored in more than one category of U and G motivation were acknowledged and as such were coded to those related.

This approach aimed to empirically explore the DEEDD theoretical framework in the context of gaining a better understanding of the sought outcomes of event fans and their willingness toward co-creating elements of the event experience (Campos et al., 2015). Significant benefits exist regarding risk reduction in latter stage open innovation processes, where

idea generation, evaluation, testing or concept development is being sought. In this instance, qualitative responses were inducted relating to the experience journey of app users, using both text and image. Of 811 visitors to the fan page post, a total of 116 completed the 'projective' digitally mediated reflective analysis (Tussyadiah, 2017, p.185). The process aimed to deliver critical insights into participant motivation, preference and expectation toward using the event app. The following are the six open and closed questions which participants explored:

Q1. How well do you expect an app to load at the event?

Q2. What opportunities and/or challenges do you perceive location services will offer your event experience?

Q3. What opportunities and/or challenges do you perceive push notifications will offer your event experience?

Q4. What opportunities and/or challenges do you perceive enabling social features will offer your event experience?

Q5. Please rank, in order of preference, the features that would most improve your event experience.

Q6. What opportunities and/or challenges would you perceive from sharing your Facebook profile information to make your event experience more personalised?

The following section will explore the closed question (CQ) responses first. These were useful in gaining insights into user expectations and preferences and as such provided a point of reference for performance and participant expectancy and value preference.

5.3 Background to Performance and Preferences for NW200 Event App

In closed question 1 (CQ1), participants were asked *"how well do you expect an app to load at the event?"* This offered the opportunity for respondents to reflect on their critical expectations of 'in-event' technology performance. This was assessed through a Likert type measure, which offers some cross event and domain comparability of efficiency, which is a key usability attribute.

Subsequent to clarifying this expectation, a focus on feature ranking was employed through CQ5; *"please rank, in order of preference, the features that would most improve your event experience."* These elements are

appraised first before the CQs related to the DEEDD framework. CQ5 is also adjudged as critical in providing comparative data from which to assess prior models (Luxford and Dickinson, 2015) and their continued relevance in the context of the digital elements of events and tourism experiences.

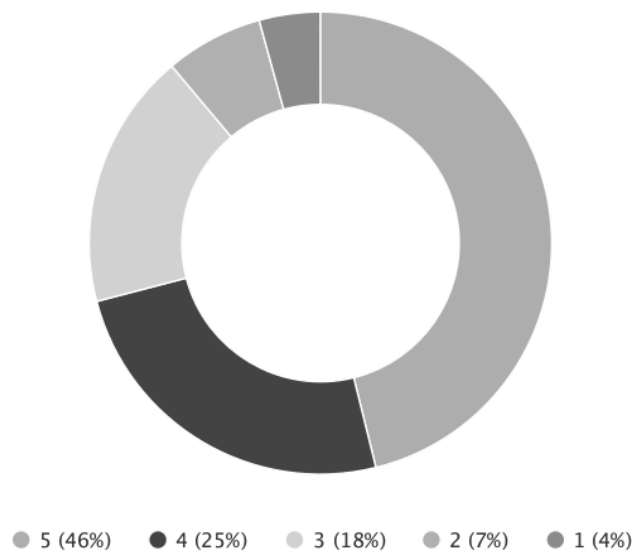
In assessing the various opportunities of the DEEDD conceptual framework, it has led to the revision of the framework (see figure 5.9) to reflect the interplay of people, technology and the event itself in a means as to better explore the actual digital event experience and the opportunities existent for better managing for sought outcomes. The following section relates to this updated framework and uses current examples as a means of explanation.

5.3.1 Expectation of performance – App Loading

Overall app performance was not the goal of this research, but given the opportunity for cross-case comparison, some closed questioning of event fans was useful in gaining an indication of user expectations and as an indicator of how a suitable number of cases would expect an event app to perform. The use of this closed question was used in the drawing of perspective around at least one dimension of performance expectancy, P particularly where connectivity is often cited as a barrier (Tanti and Buhalis, 2017). Below in figure 5.2 is a visual representation of results from question 1: *“how well do you expect an app to load at the event?”*.

Figure 5-2 App Performance Likert Type Measure: 1=Poor 5=Excellent

How well do you expect an app to load at the event?



Given that 1 represents poor and 5 represents excellent, the respondents' perspectives are generally of an app which they 'expect' to load very well indeed, with a mean of 3.57. 71% of participants expect the app to load excellent or near excellent. This information is helpful in determining the functional expectations of event fans beyond the subjective experience outcomes sought. It offers a clear indication that expectancy of performance of an event app loading at the event is much higher than anticipated, given the experiences shared through earlier netnographic searches (Luxford and Dickinson, 2015; Hoksbergen and Insch, 2016).

In and of themselves, these findings gathered through the NW200 event are quite revealing but when combined and compared with other data from the analysis, they assist in uncovering the challenges to this performance expectation. A more comprehensive survey could arguably have revealed significantly more clarity of the reasons, impact and experience issues which emit from such a functional expectation but as this was not the focus of the research, it is simply a case of highlighting this parallel opportunity for further development. At this stage, the performative data is thus used as a tool of inference and a means by which to further explore responses across cases.

5.3.1 Actor Network – People, Technology and Places

In supporting the sought outcomes of event fans, findings indicate an actor network which reveals multiple stakeholders as well as many formal and informal event interactions - actual and perceived, important to the digital event experience. The majority are people related but also the co-creation interactions in digital event experience rely on an ever-growing range of actors and ‘actants’ including technology and place-based entities relevant to event app experience co-creation (Kelleher, 2012; Pohlmann and Kaartemo, 2017). These are visualised in categories in table 5.1 below including ‘people’, ‘place-based’ and ‘technology-based’.

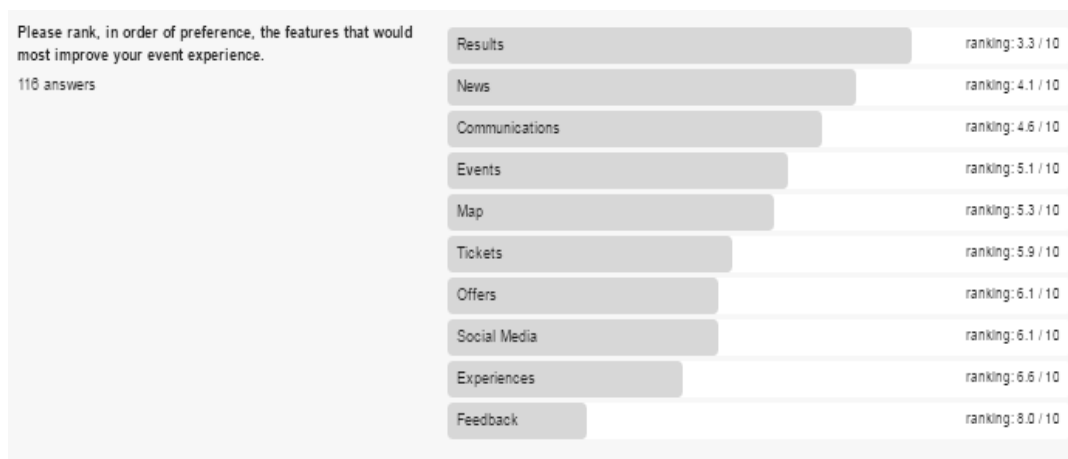
Table 5-1 Actors and Actants Involved in Value Dialogue

Actors and Actants exposed in the Event App Value Dialogue		
People	Place-based	Technology-Based
App Crowd, Teams, Riders, Users, Programme Sellers, Broadcasters, Photographers, Organisers, Family, Volunteers, Marshals, Friends, International Visitors, Emergency Services, Police, Local Council, Trolls, New Visitors, Experienced Race Goers, Press, PR, Retailers, Commentators, Hospitality and Sponsors	Points of Interest, Viewing Points, Incidents, Parking, Red and Yellow Flags, The Pits, The Course, Campsites, Hotels, B&Bs, Entertainment, Food and Drink Points, Weather, Facilities, The Paddock, Start/Finish, The Stands, Parking, Travel Routes, Retail Locations, Emergency Services, Ticket Office, Hospitality Marquees, Press Tent and Race Control.	Facebook, Twitter, Livestreaming, Commentary, Live-timing, Latest News, Geo-Notifications, RFID, Bike Transponders, Google, Hashtags, Check-ins, iPhone, Android, Battery, Automation, BBC Weather, Bikes, Competitions, Phone Signal, WIFI, 4G, Data Roaming, Internet, Spam, Videos, Images and Photos.

5.3.2 Dynamically Informed, Integrated and Entertained - App Preferences for Event Experience

In exploring the sought outcomes of the event experience, question 5 was utilised to garner insight around the type and function of app features most likely to improve the event experience for this sample of fans. As is evidenced by figure 5.3, there is a clear demand for up to date results, news and other communications in the first instance, which is followed by events, map and tickets. The top ranked items are all dependent on a 'real-time' currency and findings in subsequent sections will relate this requirement more clearly. This also concurs with the findings of Luxford and Dickinson, (2015, p.39) whose study ranked app features by focus group participants and found pre-event information, regular updates and location services as more important features also. There is also a strong propensity toward features which facilitate experience and context awareness eg. map, events and tickets which is indicative of the importance of appropriate experience design supporting critical experience-scape elements (Nordvall et al., 2014).

Figure 5-3 Features Perceived to Improve Event Experience Ranked in Order of Preference



The importance of feedback as a means of event evaluation and development is critical to experience improvement (Getz, 2008b). Interestingly, feedback did not rank highly across most of the cases as a feature. The requirement to provide feedback via an app may not be deemed as a value-adding experience, where consumers now provide

instant feedback during or post-consumption via social media gaining more impact (Gyimóthy and Larson, 2015).

Although the consumer may not always recognise the value of feedback for event planning, their actions during app engagement generate feedback in the form of data analytics. This data provides insights from which elements of event app engagement can be measured (Raj et al., 2017). This form of feedback elucidated from observing app use creates a means by which event managers can improve the event through exploring user behaviours. Narbona and Arasa (2016), posit that using apps assists in creating community and can encourage long-term impact through loyalty and repeat business.

5.3.3 Geo-based Information - Opportunities and Challenges

Smartphone technology which leverages GPS has created many new ways of experiencing locations through geo-contextual information (Tussyadiah and Zach, 2012). In relation to events and festivals, Luxford and Dickinson (2015, p.42) highlight that this “context awareness provides new competencies relative to time, as in the schedule, space, and people.” This use of apps to coordinate the consumer experience at a micro level when on-site is one of the critical opportunities and challenges identified by previous studies focused on the consumer experience using smart technologies (Buhalis and Foerste, 2015).

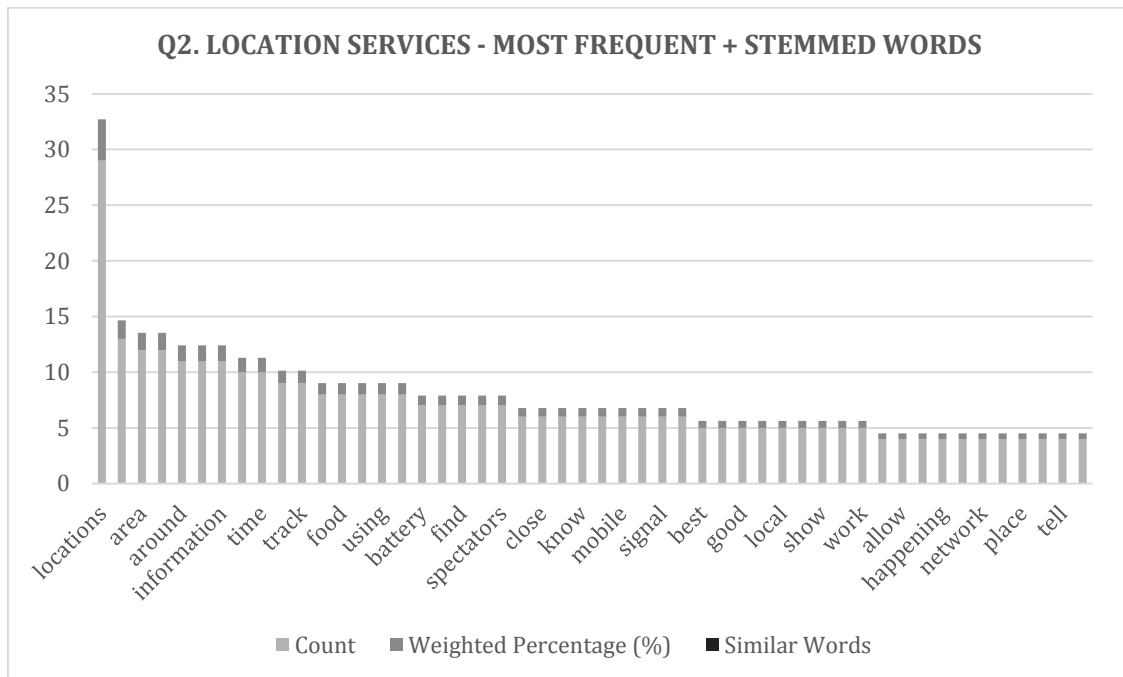
To explore consumer perceptions on this issue, an app artefact of the moment when users are asked: “Turn on Location Services to Allow NW200 to Determine Your Location” was presented for feedback (see appendix 6). A visual representation of 100 most frequent words elucidated is included in Figure 5.4. These words relate to the question that follows:

Q2. What opportunities and/or challenges do you perceive location services will offer your event experience?

The following figure highlights some anecdotal evidence of the descriptive verbiage used in relating opinions of this element of the digital event

experience where reliance is based on location services as a conduit to further contextualisation of the mobile experience.

Figure 5-4 Most Frequent Stemmed Words: Opportunities/Challenges Location Services



In relation to opportunities and challenges, the data for this question highlights 76 opportunities and 44 challenges in relation to location services. Of this number, in more general terms 44 are ‘people’ or person related, 23 are ‘place’ related and 41 are ‘technology’ related.

The figure above highlights the propensity to describe what’s nearby and around and presentation of the many opportunities of enabling locations services. Findings suggests that fans seek these services to integrate with event data on amenities, circuit, course, events - all information available from a context or place perspective. The figure also hints at hardware or connectivity issues such as battery and signal as examples. These issues are relative to connecting and maintaining a digital event experience and will be assessed further in section 5.4. Findings of DEEDD analysis.

5.3.4 Dynamic Information - Opportunities and Challenges

Push Notifications provide information updates dynamically via smartphone apps. This study found evidence of varying degrees of support and disdain of their use which concurs with Neuhofer et al. (2015a) and is detailed in section 5.4. These perspectives are of particular interest about gaining insights on perceptions of dynamic connectivity as part of the event experience phenomenon (Getz and Page, 2016).

The chart in Figure 5.5 below is representative of the most frequent 100 words stemming from responses to the following question:

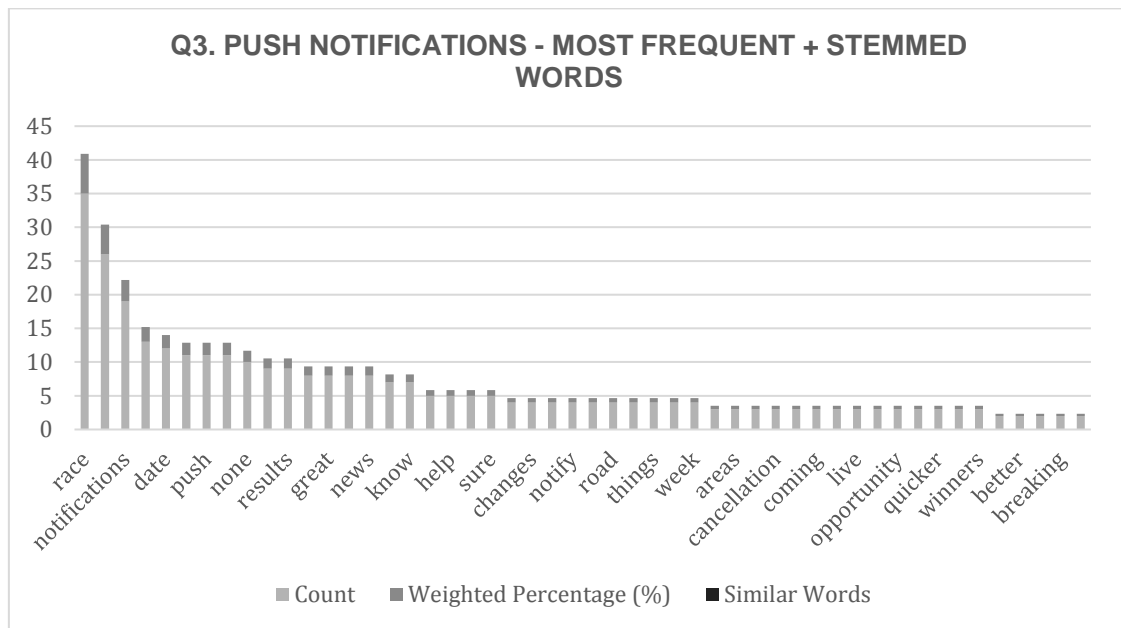
Q3. What opportunities and/or challenges do you perceive push notifications will offer your event experience?

The question was highlighted as participants reviewed an app artefact which presents the command: “Enable push notifications for updates and other great features?” Button options are “No Thanks” or “Notify me”.

In relation to opportunities and challenges, the data for this question highlights 75 opportunities and 41 challenges in relation to push notifications. Of this number, in more general terms 74 are ‘people’ or person related, 32 are ‘place’ related and 36 are ‘technology’ related.

Like the findings of Luxford and Dickinson (2015), push notifications were sought for information relating to updates, delays, news, events, announcements, cancellations and many other specific event contexts which have significance for these participants, about their event experience. Findings also highlight a sense of existent threat posed by mismanaged applications of push notifications as being a nuisance which is explored in detail through the DEEDD conceptual framework which is presented in section 5.4.

Figure 5-5 Most Frequent Stemmed Words: Opportunities/Challenges of Push Notification



5.3.5 Integration and Identity - Opportunities and Challenges

According to Hudson and Hudson (2013), social features in event contexts may facilitate further integration and identity opportunities for participants in events. As well as the additional social connectedness, there is also an opportunity to leverage the affective psychological realm through exploring personal and wider networks for entertainment, information, integration and opportunities to connect and identify (Joo and Sang, 2013).

Data was collected through participants who were served an app artefact which stated: “please log in with your social account for better experience with social features.” The following question was served alongside this artefact for enquiry:

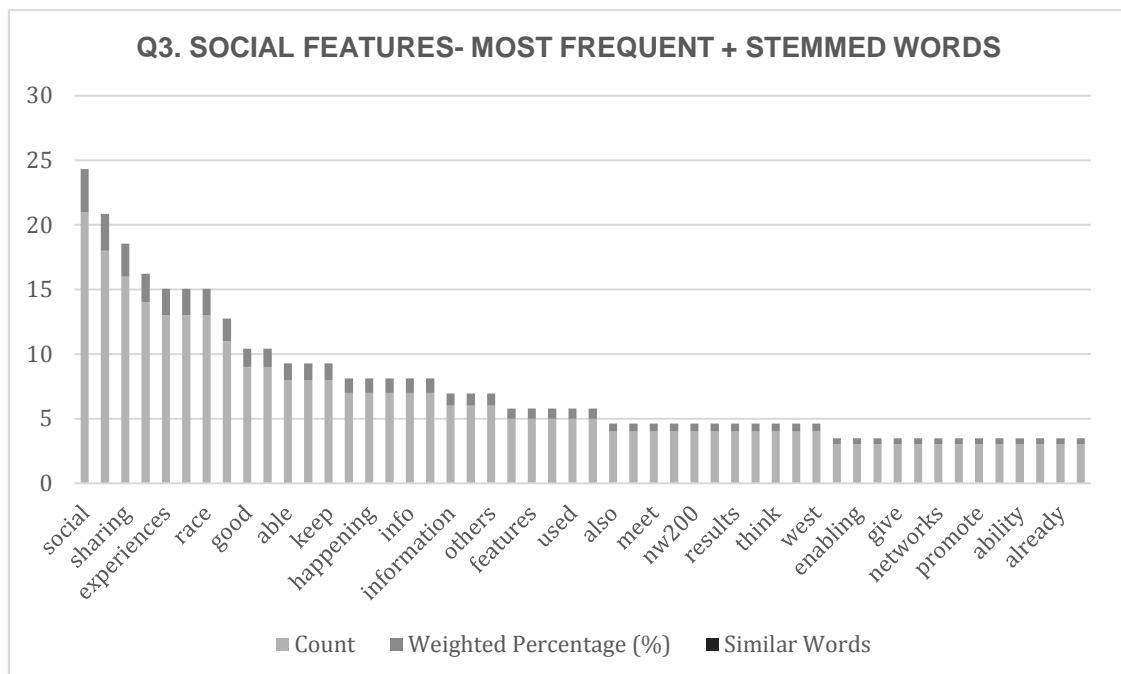
Q4. What opportunities and/or challenges do you perceive enabling social features will offer your event experience?

The chart in figure 5.6 relates the most frequent words, and as can be seen, experience and experiences, sharing, interaction, friends and keeping informed are all significant. In relation to opportunities and challenges, the data for this question highlights 87 opportunities and 31 challenges in

relation to enabling social features. Of this number, in more general terms 94 are ‘people’ or person related, 22 are ‘place’ related and 32 are ‘technology’ related.

Conforming to Gyimóthy and Larson’s (2015, p.345) findings, social features produced the least amount of resistance or negativity in connecting people with their friends, family and ‘event tribe’. This will be further explored in section 5.4 as further research is focused across DEEDD elements.

Figure 5-6 Most Frequent Stemmed Words: Opportunities/Challenges of Social Features



5.3.5 Personalisation - Opportunities and Challenges

Personalisation is a sought experience outcome in many event encounters (Gyimóthy and Larson, 2015). The final artefact and question provided the most discourse about challenges to the event experience from personal perspectives. The question posed was:

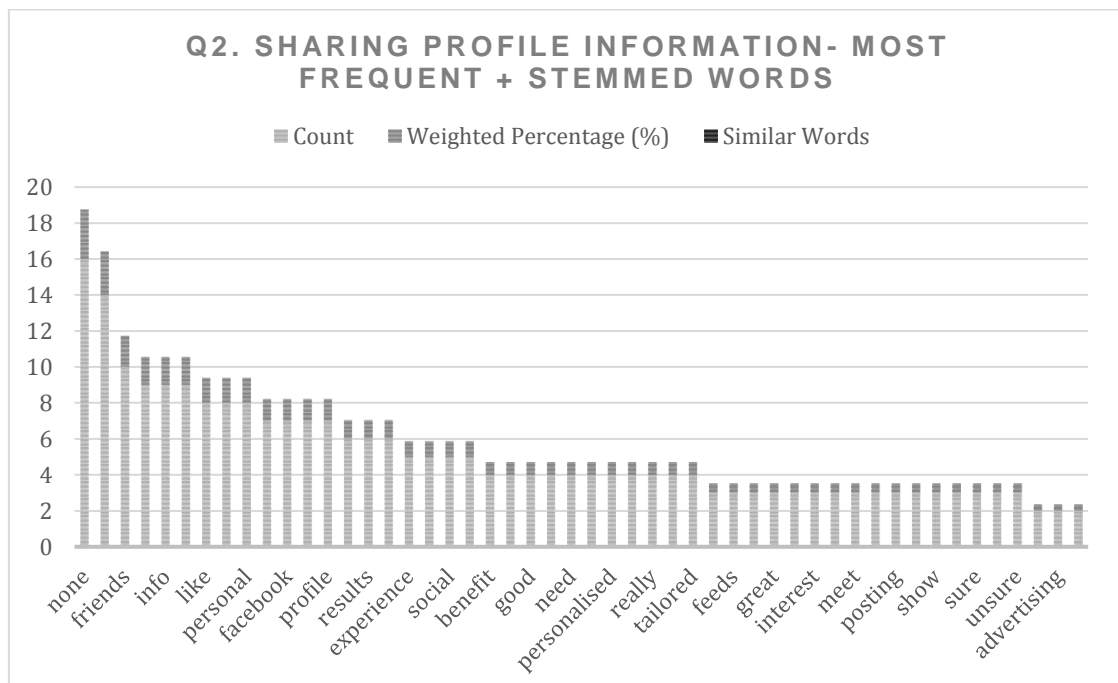
Q6. What opportunities and/or challenges would you perceive from sharing your Facebook profile information to make your event experience more personalised?

In relation to opportunities and challenges, the data for this question highlights 54 opportunities and 63 challenges in relation to sharing profile information, which is the first question to present more challenges than opportunities. Of this number, in more general terms 95 are ‘people’ or person related, 7 are ‘place’ related and 27 are ‘technology’ related.

Opportunities may be represented with words such as personalised, tailored, information and easy. These can be noted in figure 5.7.

The prevalence of words which are a little more challenging for participants such as personal, unsure and need does highlight the challenge of using personal data through social media for co-creation of event experiences or experiences generally (Gretzel et al., 2015a; Buhalis and Foerste, 2015).

Figure 5-7 Most Frequent Stemmed Words: Opportunities/Challenges of Profile Information



The following section will highlight issues, opportunities and challenges representative of individual participant concerns. In the following section, focus is placed on the continued exploration of the sub-question, “what are

the critical experience outcomes sought through technology enabled MTM co-creation by spectators or participants of international events?”

5.4 Findings Derived From DEEDD Dimensions

The analysis was focused on the event app experience and data were processed based on the DEEDD framework (see section 5.2). Answers to each open question were coded to each dimension of relevance to the uses and gratifications (U & G) sought and considered in accordance with the unified theory of acceptance and use of technology (UTAUT – see section 3.6.1). This was to study openness toward and use of technology in an event experience context. This framework when applied as a lens in exploring the data, yielded some significant insights and clarity in the evaluation of the digital event experience phenomenon.

Figure 5.8 highlights a coding comparison based on the weighting of responses to the questions and relative to the dimensions of outcome impacted.

Figure 5-8 DEEDD Dimensions Following Initial Coding

Dimensions	Q2	Q3	Q4	Q6	Coded
Entertainment	3	1	8	5	17
Identity	1	0	7	4	12
Information	58	51	26	23	158
Integration	14	3	51	25	93
Software Barriers	3	1	1	0	5
Hardware Barriers	5	3	0	0	8
Telecommunications Barriers	22	4	2	0	28
Usage Barriers	5	15	13	28	61
Privacy	3	0	2	23	28
Software enabler	0	0	4	0	4
Usage and Usability enabler	9	26	34	19	88
Actors: People Based	44	74	94	95	307
Actors: Place Based	53	32	22	7	114
Actors: Technology Based	41	36	32	27	136
User driven ideas	13	13	6	4	36
DEEDD Challenges	14	25	16	29	84

This matrix of initial coding and frequency elicited via the Facebook Polls API using app experience artefacts (screenshots) and explored through closed and open-ended explorative questions, are further evaluated in the following analysis.

5.4.1 Information – dynamic expectancy

According to Neuhofer et al. (2015a), information is now part of a more dynamic service encounter, and findings of this study would highlight an increased expectancy of delivery of this dynamism in a variety of contexts. By far the largest motivation across the range of perceived use of the event app was motivated by information. Research findings concur with Getz and Page (2015, p.613) where the experience is informed by both “formal and informal information sources”. ICTs such as apps now provide event organisers with the potential to better coordinate these sources.

Of the 158 references provided, strong interest was shown in Schedule, News, Events, Locations, Directions, Travel, Weather, Amenities and Retail. Moreover, respondents were positive toward the provision of dynamic information, personalised where possible through geo context, experience preference and with explorative functionality. This is not surprising, given the nature of the questions, but the willingness to participate in more dynamic information exchange through the digital experience was significantly more positive than expected. This is of importance, given the disconnection often sought through participation in events (Hutchins, 2016; Neuhofer, 2016b).

Mediating Role: The following quote from case 113 highlights the mediating role of smartphones and the embeddedness sought by event fans through app use as part of their digital event experience. The precision of information sought highlights the significance this technology can have in relation to underpinning the in-event experience component:

“Exact location on the course. Food outlets, programme sellers nearby.” (Case 113, Q2.).

This contextualising and sense-making through information offers the respondent a means by which to meet the generic needs or essential services of their experience in a more dynamic fashion.

Behavioural Impacts: There are clear behavioural impacts associated as Case 59 elaborates around ‘desire’ and hints at the affective potential of

real-time co-creation of experience outcomes as they explain the benefit presented by enabling location services.

“Will allow you to see what is close and opportunities to view stuff you desire.” (Case 59, Q2.)

According to Berridge (2012) who cites O’Sullivan and Spangler (1999), it is critical to match up experience design with an understanding of the desires to participate in an event experience. Desire in this context is hedonic and a significant intrinsic human emotion, and this contextualising and sense-making is critical in facilitating further exploration of the motivations of attendees. Particularly regarding what they seek from social experiences, entertainment, fun and as Case 22 highlights – a chance to locate one’s self and contextualise opportunities in the midst of the event.

“I think it will help with the experience as it could provide details of what's happening in the area you're in.” (Case 22, Q2).

The data concurs with the findings of Tussyadiah (2016c), who found increased smartphone innovativeness by younger demographics, such as the 18-25-year-old female in the following excerpt (Case 77, Q3.). Data highlighted a willingness to receive dynamic information and a wish to personalise it further in meeting experience outcomes as demonstrated in this excerpt.

“It will enable us to see what is happening when it's happening, it would be a great reminder service and also an exciting message to see what is happening enhancing the northwest experience (Case 77, Q3).”

Co-creation or co-destruction: Although consensus was not always positive around further immersion through mobile, which concurs with the findings of Neuhofer (2016b), most cases were open to a more dynamic digital event experience across the multiple phases and particularly within the in-event phase which concurs with Bolan (2014). Case 23, a 35-44 male demonstrates the challenge around how to fit information dynamism into the event experience successfully.

“Personally I think it would distract me from what's happening, but I would appreciate race results etc being sent.” (Case 23, Q3)

'What's happening' for many respondents is their current live on-site experience and as such solutions must fit expectations as they are integral to meeting the desired outcomes of event participation. Balancing this desire to be present, with a desire to know what's happening creates a tension between living the experience and immersing in information beyond but often (although not always) linked to the current experience.

This evidence highlights a critical opportunity for augmented reality (AR) delivering location services implementations where real-time event data is one of the prize information types sought, particularly in visual experiences such as sport. Wearable technology like google glasses is one area where demand is increasing in relation to the technology-enhanced experience and which could potentially augment event experiences as opposed to decreasing the event spectacle (Neuhofer, 2013b; Bolan, 2014; Tussyadiah, 2017b; Buhalis and Leung, 2018).

5.4.2 Entertainment – Immersive and Integrated

Highlighting the opportunities for new forms of entertainment that technology can often bring to the event experience, Bolan (2014, p.204) suggests "what used to be simply a case of 'being there' and soaking up the atmosphere of such events can now be greatly enhanced, and the experience made more interactive, enjoyable and immersive through mobile digital technology." Although only referenced 17 times, the provision of photos, live stream, video, commentary, social stream and further personalisation of experience suggests the opportunity of enhancing event experiences. This can be achieved through tapping into the networks, technologies and human capital existent in the co-creation of the digital event experience (Neuhofer et al., 2015a).

The insatiable appetite of some enthusiasts around embedding themselves in their experience goes beyond the physical (Tussyadiah, 2018). Being digitally located is often a motivating and entertaining consideration. Social media is one area where photos, video and reviews are often geo-located (Wang et al., 2012). According to Hudson and Hudson (2013), being a part of this content sharing is entertainment in itself and is part of the experience

sought by some event fans such as was related enthusiastically by Case 56. This male, 35-44-year-old, sought the following outcome from location services being enabled.

“Hopefully live footage of where u are.” (Case 56, Q2.)

Sharing event value: Beyond seeking entertainment, some fans were perceptive around participation in the co-creation of entertainment through leveraging and sharing their event experience. Case 93, an 18-25-year-old male, presented this integration as entertainment and co-creation benefit he perceived, in the following excerpt.

“Enabling social media feature will benefit both me as an event spectator along with the overall event. As a spectator, I will have the ability to share my locations, experience and indeed images and video through my social media. This also in a sense advertises the North West 200 through my social media feed to followers ultimately boosting marketing for the event.” (Case 93, Q4.)

In this context, we can see where platforms such as Snapchat are leveraging geo-filters successfully or hashtags on Twitter and Facebook, where participants can embed themselves in the event through co-creating content that is accepted as being shared and explored by others in contexts of entertainment (Inversini et al., 2016). These technologies have the added benefit of facilitating identification with the event and creating integration gratifications through sharing with the event tribe as Gyimóthy and Larson (2015) have suggested.

The practice of sharing data with the event app was accepted amongst respondents as leading to better outcomes in relation to personalisation and positive experience outcomes such as improved entertainment. As Case 84, female 18-25-year old presents regarding sharing her profile information with the app, she concludes it provides a:

“Better understanding of what I want to see” (Case 84, Q6.)

This was not universal, and although the personalisation of the event experience is a key motivation in contexts of service dominant logic, the question relating to sharing profile information also presented what participants perceived as the most challenging aspects and fears around privacy and integration (explored in detail in section 5.4.6).

5.4.3 Integration –Socialisation of The Tribe Through New Media

The opportunities presented by social media for events to leverage for increasing connection with fans is escalating (Pasanen and Konu, 2016). Hudson and Hudson (2013, p.221) posit that “social media can be leveraged by festivals and events to expand brand recognition, drive sales and profitability and engender loyalty.” With 93 references from within the dataset, integration by this means is for some a critical motivation of experiencing their event (Getz and Page, 2016).

The data represents motivations such as sharing, exploring, meeting, reaching, marking, co-creating and growing which fit with Holst Kjaer’s (2011) perspective of integration ideology. Moving beyond the information and entertainment afforded through an event app, there is a will for a deeper engagement with the event; integration through event realms, within spaces and through people (Pasanen and Konu, 2016). Integration goes beyond simply having access to the opportunities of togetherness, and sociality and further into the potential of users to seek unique service and experience encounters (Bolan, 2014). Regarding simple geo-based integration, the potential to co-create experience elements such as Case 89 35-44 year-old female presents, are more prevalent due to more dynamic information flow in real-time.

“Can tell where I am in conjunction with events going on around me. I can be selective and creative about my own experience this way.” (Case 89, Q2.)

This awareness and openness offer a myriad of experience co-creation opportunities, personalisation of the event programme to contexts as well as the potential to engage in unique features only available through integration to the digital experience.

Case 77 an 18-25-year-old female is even more optimistic about how the integration of dynamic information flows through push notifications can enhance the event experience:

“It will enable us to see what is happening when it's happening, it would be a great reminder service and also an exciting message to see what is happening enhancing the northwest experience” (Case 77, Q3.)

What is evidently important to Case 77, is to benefit from integrating her experience through mobile technology; seeing what's going on around the event and seeking to engage in sharing experience elements to create a North West experience; *communitas*, sociality and novelty which concurs with the findings of Geus et al. (2016). What is beneficial about integration through the digital event experience is that there are opportunities to mediate that process and have some form of control through the platform which provides the potential of safety and risk reduction (Benckendorff and Pearce, 2012).

Gyimóthy and Larsen (2015, p.337), present the “we-ness” of interacting with the event tribe through social media and ICTs. This opportunity for increased socialisation is one opportunity the app represents to some fans. Case 116, a 45-54-year-old male highlights one of those key motivators of integration and personal validation sought by spectators of event experiences. (Case 116, Q6)

“May be possible to [meet] new friends of a like-minded view on life”.

There is also the potential of degrees of integration, which allows for things to remain in a consumer's preferred context but to still avail of the experience of togetherness and community through digital as demonstrated by Case 89, a female of 35-44 years who states that:

“through the app, friends can comment and enjoy. Plus, I can catch up with other fellow racegoers.” (Case 89, Q6).

Consumers active on ICTs often seek to integrate with events through their social media (Hudson and Hudson, 2013; Buhalis and Foerste, 2015). Case 55 male 55-64 years old is clear on why enabling the event app through social media is an opportunity for such integration:

“Social media is about interaction - fans enjoy keeping in touch and providing info for each other” (Case 55, Q4.).

This brings significant validity to the argument of Gyimóthy and Larsen (2015) who highlight the value creation of event tribes independent of the event provider. Here there is revealed an opportunity which is somewhat unifying in its potential across demographic profiles and through a shared passion for the event. If there is a challenge, it is managing the integration

of casual fans with super fans and how platforms can balance these slightly differing needs of information supporting a preferred and personalised level of integration.

5.4.4 Identity – the Data Self

As identified by Kinnunen and Haahti (2015, p.260) when examining important factors in participants experiences, “event identity was a part of the identity discourse showing deep personal attachment to the event and its values.” Creating opportunities for fans to engage meaningfully and to grow their knowledge and feel connected is an evident long-term strategic imperative for events (Holst Kjaer, 2011).

Identification with an event has often been evidenced as a critical motivator for participation (Morgan, 2008; Berridge, 2012; Getz and Page, 2016). Opportunities to cultivate identity and to posture socially are abundant through event branding and even more due to the social media phenomenon. ICTs facilitate fans to carry their passion through lots of communication (Hudson and Hudson, 2013; Buhalis and Foerste, 2015). This is achieved in social media through a passive association such as linking and commenting, right through to more participative digital self-presentation through selfies and stylised performances (Dinhopl and Gretzel, 2016). These presentations of self, which are a primary driver of social media use, are also an opportunity to deepen the relationship between event goer and the event itself, to bring about mutuality in co-creating experiences.

Although only 12 references specific to identity were coded during analysis, they point to people positioning, experiencing, being, immersing and even owning and sharing what might be considered as ‘their event’ (Gyimóthy and Larsen, 2015). One such example is provided by Case 93, an 18-25-year-old male, who subtly suggests that this complementarity exists in the sharing of his data self with the event. Aware of his position as a consumer, he highlights the main benefits of digital integration from a shared event and fan perspective:

“I would suggest the possibility of creating a more tailored/personal marketing (Case 93, Q3).”

His perspective of this likely outcome is further elucidated from his response to enabling social features:

“Enabling social media feature will benefit both me as an event spectator along with the overall event” (Case 93, Q4).

The concept of performative leisure (Getz and Page, 2016) is quite evidently an opportunity for event organisers to leverage participant identification and integration. A distinct opportunity exists where a participant seeks to experience value co-created through this digital B2C collaboration, where the digital self is promoted, engaged, enriched and celebrated as being a part of the community (Nordvall et al., 2014). Concurring with Luxford and Dickinson (2015) about improved experience outcomes, Case 74, a male of 18-25 years of age also ascribes that experience value can be derived from sharing their identity through the event app:

“Linking my Facebook page with the North-West app, sending me info or tagging me in stuff upcoming” (Case 74, Q4.)

Further evidence of a desire to integrate with the event and supporting the findings of Hudson and Hudson (2013) related to such integration, Case 81, a 25-34 year old female goes one step further. They highlight the potential of experience value from sharing family togetherness, with the community and through the representation of her data self on social media:

“This will give me the opportunity to upload myself, family and friends enjoying the NW200 2016” (Case 81, Q4).

According to Luxford and Dickinson (2015), further personalisation of the event experience through digital is a suggested goal for many participants using apps. The motivation of Case 81 in seeking such experience value is evident in her revealing comment about how sharing one’s profile information might support deeper engagement through more informed and presented personalisation:

“It would make you feel that it’s really all about you.” (Case 81, Q6.)

In concluding this section, the findings here support the literature on event experience, which provide clarity on the importance of events in meeting

personal identity needs through engaging in community (Morgan, 2008; Berridge, 2012; Kinnunen and Haahti, 2015). Case 70, a female of 35-44 years old with a focus on friends and sociality felt that sharing of her profile information was a:

“*Good idea, a sure way for meeting like-minded fans.*” (Case 70, Q6.)

Of the Social media available, Facebook, in particular, does seem to resonate with event fans as a place to meet people who are ‘like-minded’. Which is to say, a place where one can find and embrace a shared identity with others which suits your motivations, preferences and experience ambitions in a mediated and (somewhat) safe environment (Hudson and Hudson, 2013; Hoksbergen and Insch, 2016). The next section explores the barriers and enablers of these uses and gratifications as presented by event fans in exploring their potential use of the event app.

5.4.5 Barriers to Sought Experience Outcomes

As was discovered through the literature review of event experiences, they are recognised as subjective and as such, the expectancy of a universal experience does not exist (Getz and Page, 2016). The evidence gathered in this study highlights shared patterns across the data about some of the experience challenges faced which is explored further in the following examples.

In total, 129 barriers were coded across software, hardware, telecommunications usage and finally, fears around privacy. These factors are critical to the potential event experience if their presence produced dissatisfaction (Neuhofer, 2016a) and thus is an important component of study. Barriers ranged across intrinsic and extrinsic factors which would lead to non-use of the event app and included perceptive challenges, potentially due to prior experience or from personal cognition or foresight. The following example provides insight into the challenge of (dis)connectivity in experience contexts, as highlighted by Neuhofer (2017). Case 22, a 26-34-year-old female, held one clear example of the challenge of the app meeting her experience needs when responding to Q3.

“Personally I think it would distract me from what's happening..” but in the same sentence the respondent suggests “...but I would appreciate race results etc. being sent.”

This concurs with Hutchins (2016) findings and also hints at a digital dilemma, potentially conflicting with an aspirational level of event immersion, through being present and engaged but fear of distraction from the live on-site experience. Mediating this barrier is a key requirement of any digital event experience as was uncovered in the earlier literature (Hudson and Hudson, 2013; Brown and Hutton, 2013; Bolan, 2014; Hoksbergen and Insch, 2016).

Case 73, a female of 35-44 years has evidently been a spectator at the NW200 event for a long time. Through this familiarity she sees little benefit in location services when she responds:

“Not much use to me - Been going for over 34 years! What could I learn from it?” (Case 73, Q3.)

Her further response in relation to gaining updates from the app was that she would seek “statistical updates on race positioning.” This highlights that she is not completely closed to event app use and clearly would not be categorised as a technophobe but in a later response about sharing her FB data for a more personalised service she responded: *“Nope - privacy preferred”*. This is indicative of the significant challenge highlighted by authors such as Gretzel (2015c) around privacy. The respondent is protective of her identity, and as such, this is a barrier for her to further personalise her experience through sharing profile information.

She is not alone in this sentiment, and where millennials tend to be more supportive and open to personalisation through data sharing, it is not uniform across this younger demographic (millennials). This is summed up in the following quote from Case 92, a 26-34-year-old female, who confides:

“I don't like to link apps to my social media accounts and would unlikely use the app if this was a requirement.” (Case 92, Q4.)

This barrier to use is significant in that many apps are dependent on people integrating elements of their personal data through the social sign in, to assure all functionalities are available. This is part of the privacy trade-off

that Wottrich et al., (2017) have researched where consumers (in seeking value) are willing to trade privacy in what they call 'privacy calculus theory'. As app business models are often built on the exploration and facilitation of in-app purchases, advertising or mailing subscriptions, these privacy exchanges are critical to monetising their efforts (Wottrich et al., 2017).

Case 7, a 26-34-year-old female is also suspect of the benefit of sharing profile information to create a unique digital experience as she responds:

"I don't think sharing my profile info would make anything more personalised" (Case 7, Q6.).

Her earlier responses show that there are no barriers to getting dynamic event specific information and is supportive of such engagement. She states:

"Push notifications would be useful for delays to the racing, notifying of time till race starts, road closures etc. (Case 7, Q.3)."

She is not willing to accept that there is a personalisation benefit for sharing data as is suggested of interoperable platforms in the literature, where sharing is a potential route to improving the event or festival experience (Hudson and Hudson, 2013).

There is further evidence that some event fans do not believe there to be utility from their data being shared in co-creating elements of an experience. An often-used response when seeing the request for opt-in was as follows:

"It's too invasive. I don't see how this app can personalise a large-scale event like this" (Case 112, Q6).

This concurs with the findings of Hudson and Hudson (2013, p.220) who propose that "the future of marketing communications will continue to be all about relationships, and these will be irreparably harmed when an organization is perceived to violate a customer's privacy or creep too much into their lives."

Case 27 is a 26-34-year-old male is a little more positive on the potential of utilising profile information as he suggests:

"This could work well depending how personalised it made the event. If it was just the same social media updates that on news etc it would not really be worth-while." (Case 27, Q6.).

In earlier responses, this same respondent demonstrated a clear understanding of how location services work and around the potential benefits of push notifications to personalising that experience.

Significantly, with push notifications and concurring with previous literature, there are still many barriers perceived in their use and the ultimate impact on the digital event experience (Hutchins, 2016). For instance, case 19, a 35-44-year-old male, is clearly not enamoured with the use of this particular element of event app technology where he relates his fear of the:

“Potential bombardment of push notifications” (Case 19, Q3.).

These are significant barriers, which are existent through prior experience or generated by thought around the potential use of elements of an event app. The most significant of which is trust in the use of an app as a mediating ICT, and the continuing challenge of maintaining privacy, which is explored in the next section (Gretzel et al., 2015c).

5.4.6 Privacy vs Personalisation

According to Gretzel et al. (2015c), privacy concerns are one of the challenges to experience consumption and co-creation in smart contexts. In this study, loss of control, data security, annoyance and inconvenience are some of the barriers highlighted within the 28 coded references to this node. The difficulty of accessing personal data for further event personalisation was highlighted as a potential dichotomy in the last section. As has been highlighted previously in the literature, the challenges of using smart technologies as a conduit to such personalisation is a contested space (Wottrich et al., 2017), Case 51, Q6 is unequivocal on this issue:

“My profile info should stay private to me.”

There is discourse in the literature around privacy trade-off, whereby app value is supported over privacy when considering app download (Wottrich et al., 2017). Case 51 is aware of permission and privacy of participants:

“Updates on injured riders (minor injuries that the rider gives permission to be public knowledge) as we all care for their wellbeing.” (Case 51, Q4)

Privacy vs personalisation is an evolving challenge and is more significant given the challenges of trust and issues of data security in the 21st century (Buhalis and Amaranggana, 2013). There is certainly concern present in the evidence gathered by this study around co-creation practice using customer data, with the following statement from Case 77, Q6, highlighting this digital age dilemma for events (Hudson and Hudson, 2013):

“Privacy could be impacted however it would again be a good way to engage and let friends and new friends know what you are doing.” (Case 77, Q6)

Case 13, a 65+ male shed more light on this issue in perceiving his situation around location services being enabled, and how this would not necessarily be the desirable outcome of his event app experience as for him, the notion of escapism in an event context is potentially hampered:

“You can see where I am at all times.. which bothers me” (Case 13, Q2.)

Privacy was an issue for this respondent as he goes on to state that he is *“Never happy to share my profile.”* Although inconclusive regarding ‘why’, clearly the user's anonymity is important to him in these event contexts and as such is a potential barrier to integrating further into the digital event experience through gateway digital co-creation activities such as sharing of data.

Case 8 is a 45-54-year-old male, who was less descript generally and negative in his responses to the questions posed relating to the app artefacts and underlying questions. He was still of the mindset that *‘nothing’* or *‘not much’* potential for an improved experience would come through location services or social features. In fact, he went as far as to describe the push notifications as *“annoying”* which would suggest that this detracts from his overall event experience (Case 8, Q3.).

Case 94, a 35-44-year-old female was more explicit on the reasons why she would prefer not to integrate her digital-self further within the event experience.

“Do not like companies seeing my profile” (Case 94, Q6.).

A similar view was expressed by Case 112, a 26-34-year-old female who stated:

“It depends why it needs to know my location. Don't like having loads of apps knowing my location.”

In addressing whether location services would provide opportunities or challenges to her event experience she exhibits knowledge of the operational and experiential impacts of data collected from the use of apps (Brown and Hutton, 2013). In relation to opportunities/challenges of location services, she states “none - but will possibly indicate how many people are at which points on the circuit”. This eludes to value being derived more by ‘the companies’ as opposed to the event fan and as such is a significant barrier (Vargo and Lusch, 2004). This is evident in that although the use of location services tends to be more autonomous and difficult to link to a specific person, it is still viewed highly suspiciously (with justification) by event fans. This is a significant privacy issue and usage barrier. In explaining this issue, Gretzel et al. provide that (2015c, p.184) “*location-based services, while extremely useful for tourists, also make consumers vulnerable.*”

Given the challenges of privacy and data security, there are obvious risks inherent in negotiating different forms of event personalisation from fan perspectives. Wottrich et al., (2017) highlight the willingness of data sharing by many app users where a cost-benefit trade-off is made in the mind of the consumer leading to some privacy being sacrificed for experience value of some kind. This privacy trade-off will continue to be one of the critical challenges of personalising the digital event experience more seamlessly through permissions-based integrations of personal data (Gretzel et al., 2015c).

5.4.7 The Barrier of Mobile Connectivity

According to Horbel et al. (2016), it is not just some fans who resist telecommunications within the critical in-event phase (Hutchins, 2016). The tension of technology as a barrier and enabler in an experience context is well understood (Boes et al., 2015; Neuhofer, 2017). Literature suggests

that telecommunications infrastructure be both enabler and barrier of experience and is a significant and escalating issue regarding importance for Event Management (Frew and McGillivray, 2008; Luxford and Dickinson, 2015). Telecommunications, at their most basic level, should meet the needs of modern event fans who seek to connect, communicate, create and clarify, mediated through mobile technology (Van Winkle et al., 2016).

In this study, telecommunications barriers (28 instances coded) presented the largest single technical issue perceived to interfere with the event app experience. The importance of connectivity on-site was summed up in the following quote by case 25, a 35-44 year old female who felt:

“Better experience if the connection is stable.” (Case 25, Q4.)

Further evidence of how this issue is often manifest in the co-destruction of value within the event app experience is presented by case 10 who suggests that infrastructural support is lacking during the on-site experience on the main event days:

“Due to the lack of Internet availability in the area, it's unlikely that this will work unfortunately. Once the 4G offering has been improved for the Open and all visitors can actually get a decent signal, then this will be a great feature.” (Case 10, Q2.)

There is a perceptible expectation that things will improve at the NW200 site (partially due to the arrival of ‘The Open Championship’ golf event in 2019). In the NW200 app example, value is reliant on data availability from the network of mobile service providers and as such is one of the biggest barriers to maintain ‘flow state’ through use of an event app. Thus, a means by which to mitigate the potential risk to the digital experience is an important factor to consider when engaging such technologies (Luxford and Dickinson, 2015).

Another challenge of poor or no signal through telecoms is the effect on hardware such as is evidenced by Case 87, a 35-44 year old male who provides two clear examples of this issue:

“Low battery in an area where you already waste battery searching for signal depending on network. An hour of running that app with location services would empty an iPhone 6s battery” (Case 87, Q2.)

He also goes on to share a critical point but supported by a potential solution:

“Again, a battery drain, you would not have push, you would prefer to have the info on demand” (Case 87, Q3.).

Tanti and Buhalis (2017) highlight the constraints of international mobile use in the form of availability and costs (roaming). Thus, the location of an event and its network coverage can have potential impact, where event fans are dealing with network coverage out of state or are at an event (such as in the NW200 example) where it borders on another international jurisdiction.

“Roaming charges kick in around the paddock area, so push notifications are turned off” (Case 73, Q3.).

This is clear in its impact and when considering the importance of navigation to fans who are new to an event space. Concurring with Luxford and Dickinson (2015), consideration must be given to those who will be reliant on an app’s geo-based information, in particular, to support the basics of their event experience.

5.4.8 Usage and Usability Enablers

Neuhofer et al., (2015b) highlight that technology can often be both an enabler and barrier to experience and there are many factors to be cognizant of. This knowledge is critical in mediating how technology experiences are created regarding design, content, usability and functionality.

In this study, eighty-eight references were coded to this node which makes it the highest coded technology acceptance element. The most common answer was an acknowledgement of a preference for personalisation more generally which would be indicative of the literature (Buhalis and Foerste, 2015). Case 10, a female, 26-34 years old who expressed that:

“Personalised experiences are always preferable” (Case 10, Q6).

Indeed, further echoing the benefits of supporting a more dynamic experience of ICT but highlighting the primary perceived challenge of doing so, is further evidenced by Case 10, Q3:

“Push notifications if provided regularly will be great although the internet provision, as mentioned above, will be the greatest obstacle.”

Connectivity, as discussed previously, is critical as the means through which to tap into event data across platforms, but in many cases, it is also the perceived doorway into a more revolutionary and personalised experience (Neuhofer et al., 2015b). Case 93, a male 18-25 year old, is clear from his perspective about the motivations and enabling benefits of a more integrated digital event experience through the event app. Supporting the evidence of Luxford and Dickinson (2015) about enabling location services for improved event experience, case 93 suggests:

“Event experience will be boosted due to the use of location service technology, essentially adding a new service dimension to the overall North West 200 experience.” (Case 93, Q2.)

Supporting the findings of Horbel et al. (2016), this new service dimension and the means through which to make the event tangibly more relevant and contextually richer across the gamut of individual needs, is certainly a common goal across respondents. It is also achievable to some degree through the potential of pro-actively providing more choice for event fans in creating and consuming more personalised event journeys (Andersson and Armbrecht, 2014). This is a desired and strong motivation expressed by many respondents in support of app use, to increase their experience value.

It is already perceived in the minds of participants that this level of contextualising, optimising and personalising one’s experience is a realisable experience objective. In relating this point, Case 22, a 26 to 34 year old female sees where this process could lead to a more palatable experience for fans:

“give fans the opportunity to choose what information they get rather than bombard them with stuff they may not be interested in” (Case 22, Q3.)

Neuhofer et al. (2015b, p.796) present these “exaggerated frequencies of push notifications” as a major reason for the rejection of ICTs. This ‘bombardment’ of which she speaks is certainly a curse of digital

communications where the channel is either not respected in 'push' terms or not managed appropriately in 'pull' terms (Lamsfus et al., 2015). The potential of an intelligent platform to prescribe the right amounts and right types of data across the right contexts are revealed as the 'sweet spot' of a more personalised digital event experience (Neuhofer et al., 2015b).

Indeed, Case 55, a 55-64 year old male, highlights just how important creating this flow and integration of fans into the digital event experience at a large-scale event is, as he suggests:

"Information is key and at an event, particularly one which is so spread out. This information needs to be provided live throughout the day" (Case 55, Q3.).

The ability to add significant experience value by assisting event fans to navigate and negotiate the challenges of scale, scope, familiarity and sought outcomes of their event participation, is the biggest opportunity presented of smartphone technology, according to Van Winkle (2016). It is possibly the most important single factor for willing people toward further digital integration and engagement with their experiences (Neuhofer et al., 2015a).

Lastly, regarding enablement, the sense of community and the drive to share the experience with friends, family and others is a corner stone of event experience motivations (Morgan, 2008). The various event states as presented by Getz and Page (2015) where fans seek fun, entertainment, community, escape, and hedonic pleasure are all contained across the event journey. Sociality or social embeddedness through event integration with social media platforms is one key engineerable component in meeting these needs (Hudson and Hudson, 2013). This sentiment is agreed by case 37, a 25-34 year old male who sees the lack of boundaries in his digital event experience. He is positive throughout his responses and believes highly in the potential of social media to support and enhance the event for him as is evidenced in his response:

"Facebook and Twitter give the ultimate experience to spectators all over the world" (case, Q.2)

The emerging habits of younger demographics in relation to their social media consumption and its effect on perceived outcomes are significant in

strategic management around the future of digital event experiences (Bolan, 2014; Buhalis and Foerste, 2015). A slight majority of respondents are more willing to integrate to enable elements of the digital experience, which is encouraging for event management embracing digital as an event experience support (Luxford and Dickinson, 2015). Using social media as a means of engaging with fans in the development and co-creation of networked experiences is not without its challenges and in the next section, some of these challenges are revealed and reviewed.

5.4.9 DEEDD Challenges

As was highlighted in the literature co-creation of the digital experience often relies on both operant and operand resources to be integrated successfully (Bharti et al., 2015). According to Neuhofer (2016a, p.780), “there is evidence that not all resources are value-adding but can be value-destroying, effectively leading to diminished experiences and value.”

Several such opportunities exist for this ‘co-destruction’ in contexts of the digital event experience, particularly through on-site participation where experiences are heavily reliant on connectivity (Buhalis and Amaranggana, 2013). This is to facilitate consumers integrating and supporting content creation and curation through ICTs in event contexts. This section focuses more on the use of the DEEDD framework (see section 5.2) in dynamic contexts where the operant resource, the user(s) themselves, are a key component in experience development, participation and/or support (Hudson and Hudson, 2013).

The challenges presented here (84 coded) are not new regarding engaging users in innovation practices or in terms of implementing research protocols (Hjalager, 2010). These can be stumbling points which present within many forms of ICT use where clarity in communication is fundamental (Lalicic et al., 2015). Whether a dialogue is taking place business to consumer (B2C), consumer to consumer (C2C), or being mediated live or through a bot many to many (MTM), the negotiation of integration remains an issue to manage (Hill et al., 2015; Buhalis and Leung, 2018).

In this study, challenges ranged from quite obstinate respondents who would choose to take issue with each question raised. For instance, case 4, a 45-54 year old male who, although with some justification, commented negatively throughout in his responding to the artefacts and questions presented in this research process. He provided responses, which ranged from the profane to the sublime, but was evidently pro-active in the co-destruction of the process (Neuhofer, 2017). In this instance, the system was unable to regulate the serving of questions for response, and as such, the respondent's increased agitation is an example of where an automated system, aiming to co-create an experience of value, can be implicit in deepening and furthering the co-destruction of an experience (Rihova, 2013).

In responding with his perspective of location services the respondent highlights:

"What????? I'm in the USA, this has no bearing for me."

The co-destruction continues (automated at the research end) with a focus on push notifications and a response as follows:

"What the hell is a push notification, how about some friggin normal terminology for us folks that are not 20."

Clearly and markedly defensive at this point but uncontrollably connected to the process, the respondent provides the following response about the enabling of social features:

*"I don't want to listen to a bunch of pontificating w**kers go on and on about rubbish because I share my interest of the NW200 on my Facebook."*

Although the opportunity to participate was presented through the event's Facebook page and although the request to participate was purely voluntary, it is clear from the interaction that the will of the participant is, at best, to create personal value through entertaining himself. In this case, in a manner that could be construed as 'trolling', but is not conclusive. In the final response, he states:

"What??????? This question makes absolutely zero sense to me." (Q6).

It is conceivable (although not in the view of the researcher) that the participant in this instance was out of their comfort zone technically and destructive as a result. This can be a reaction to technology by some event fans who feel aggrieved at its use (Hutchins, 2016).

It is certainly an episode which can highlight the potential of co-destruction, given the potential negative impact on service encounter. As such, it is useful as an empirical example of where automation of service, like many of the opportunities emerging from the Smart technologies and integrated through the Smart Tourism destination perspective, will require some forethought in terms of implementation (Neuhofer 2017).

Indeed, from apathy (the most prevalent challenge), to anger and resentment, there was representation of many apathetic interactions, the following being the most common and which offer little to support insight:

<p>“<i>none</i>” (Cases 20 and 86, Q2 – Q6); “<i>good</i>” (Case 36, Q2 – Q6)</p>

The major benefit of using the Polls API in these instances of seeking to co-create on social media is that these representations are not public (unless that designation is chosen in settings) and thus are presented in a safe space, less likely to explode into a significant social media spat (Neuhofer, 2016a).

The same would be true of most personalised experiences of digital events which are mediated through one’s smartphone or other device and as such, the challenge is more in creating parameters whereby interactions can be diluted or invigorated to suit the needs, moods and expectations of the user in their context. Solutions to this challenge are proposed in chapter seven. The next section explores the more exceptional side of co-creation, resultant in ideas and innovations and from which the DEEDD framework has a warrant for use regarding improving the digital event experience.

5.4.10 User Driven Ideas

Evidence in the earlier literature review related by Lalicic et al. (2015), highlights the potential to engage event fans as active participants in innovation processes and is one of the most opportune elements of event

teams engaging through social media (Bolan, 2014; Gyimóthy and Larsen, 2015). In this study, there are considerable opportunities to connect with fans and to explore the sense-making and meanings attached to their event experiences, whether physical, digital or augmented (Tussyadiah, 2018).

Building on the findings of Tussyadiah and Zach (2013, p252) who suggest researchers measure “the actual innovation performance resulted from consumer insights through social media”, the data was also coded to reveal user-driven ideas which could lead to performance innovation in experience design. A total of 36 insights were coded at this node, and radical experience evolutions were suggested. Examples such as augmenting live race data across the event vista to provide a more immersive experience for users through to more functional geo-notifications relating their proximity to suitable viewing points. These are significant insights on what users perceive as opportunities for digital experience development going forward. According to Holst Kjaer (2011), the range and wealth of data generated by participants could contribute significantly to creating a technology-enhanced event experience, given the alignment with professed user desires.

Case 18, a male of 25-34 years provided insight into how the operand and operand resources of others could be re-constituted within an event experience to create a ‘crowdsourced’ content supply with embedded geographic information as outlined in this response:

“Information specific to my geographical location e.g. facilities close by or details of spectator points. More could be done with GI including crowd sourced data showing unofficial spectator points uploaded by users” (Case 18, Q2.)

The benefits of successful engagements of this nature are evident when one considers platforms such as Trip Advisor, where user-generated content is a profound source of information and a means from which to build a better picture around a critical experience decision (Roberston et al., 2015; Lalicic, 2015).

Moving beyond the micro level engagement, where the key beneficiaries are the event fans, an interesting comment in perceiving the larger challenges of event management from a dual perspective was presented by Case 24, a female of 55-64 years of age. She most perceptively highlights

one potential benefit that supports a safe, accessible and better-managed event:

“This could help the race organisers into map the movement of spectators around the course. Ideally it could be used to inform spectators of information that relates solely to the area they are in and in the event of an emergency fans could be directed away from a specific area etc.” (Case 24, Q2.)

In contemplating a more connected host destination perspective, Case 32, a male 25-34 year old discusses how an event app could facilitate better engagement and integration with the following response:

“Location services could be used to promote attractions nearby to visitors to the north coast, but this is not used enough. Promotion of restaurants, parking, bars, live music could all be used through the app.” (Case 32, Q2.)

The challenges and opportunities of engaging other stakeholders in the development of an ecosystem (Gretzel et al., 2015c) is a consideration of importance in the design of experiences at event destinations. In this context, we see where the integration of event service providers through openness to data sharing by connecting and networking services is integral in meeting the expectations of fans moving forward (Brown and Hutton, 2013; Inversini and Williams, 2017). These considerations point to the potential of Smart Event Experiences leveraging the capabilities and capacities of ‘smartness’ in event technology implementations as outlined earlier in the literature review (Buhalis and Amaranggana, 2013; Koo et al., 2016).

According to Tussyadiah and Wang (2016a), smartphone users want to be able to have a more informed dynamic ‘real-time’ experience. This is evidenced by Case 3, a 25-34 year old male, who was consistent in his expectations of sought outcomes about integrating the various contextual services discussed:

“I expect these to be welcome when they come through but keep in mind they need to be timely along with the real-time info coming from bystanders etc. You need to beat the info coming from York corner to university corner via word of mouth and cover areas not included over the existing tannoy.” (Case 3, Q3.)

Hoksbergen and Insch (2016) found in their study, fans connecting their real-world experience through online platforms, by 'e-word of mouth' across social media. In this instance, a digital murmur/crowd whisper needs to be understood, and a strategy developed for its management (Gyimóthy and Larsen, 2015). Finding a means by which to harness the rich and location-specific information coming through other platforms from event fans independent of the event app such as Twitter, Facebook, WhatsApp and other platforms would be powerful.

The wish to have an experience enhanced through the event app without the integration of social media was suggested by a 25-34-year-old female event fan. Case 22, seemed to allude to some form of escaping her social media connections but socially exploring the event through the app. This is not uncommon with other social sharing platforms, where a degree of anonymity in that exploration is desired, or a break from the norm – a somewhat liminoid experience may be a sought outcome (Kozinets, 2010):

“I do not like being logged into social media when I am not using it, I think the social aspect should be through the app itself somehow.” (Case 22, Q4.)

Another argument to consider around the event app was made by Case 18, a male 25-34 year old, who would prefer the ease of one digital platform, through which to source his information and to engage socially.

“I would rather use only one source of information on race day, perhaps posting on facebook from the app would tag images with event or location information” (Case 18, Q6.)

Agreeing with this position, event teams need to consider the primary function of the ICTs they intend to engage and how these will enhance the event experience (Van Winkle, 2016).

5.5 Revised DEEDD Framework

Given the multi-phasic and dynamic nature of the digital component of the event experience and the range of opportunities existent to explore it in terms of impact, this research has been important in creating a suitable vehicle for exploration of this emerging experience paradigm. New ways of exploring the event experience are critical to Event Studies development and evolution (Getz and Page, 2016).

Below is a table representing critical co-creation and co-destruction examples based upon the data and presented in a manner as to highlight the potential for technology to impact through both use and non-use contexts within the event experience.

Table 5-2 Use and Non-Use of Technology - Co-creation and Co-destruction

Use/Non-Use Factors: Experience Co-creation and Co-destruction		
	Co-creation	Co-Destruction
Technology Use:	“Social media is about interaction - fans enjoy keeping in touch and providing info for each other”	“Potential bombardment of push notifications”
	“Good opportunity as when I'm there I'm always using social media to let my friends know what their missing!”	“Personally, I think it would distract me from what's happening”
	“Pictures that the media don't get or show”	“I wouldn't want it posting on my account without permission”
	“Give app users a better chance of not missing any events and finding out up to date info”	“To many notifications therefore possibly missing ones from friends”
	“Up to date race info. Nothing worse than sitting on the roadside not knowing why the race isn't happening”	“I wouldn't use an app that needed my personal Facebook information. That shouldn't be available to anyone other than my friends. Plus, I wouldn't want the app posting things there. I see no reason an app should need to stalk my personal photos and statuses. This won't help the app improve my experience.”
	“Be able to share posts on the app and help and promote the event.”	“It's too invasive. I don't see how this app can personalise a large-scale event like this”
	“Will be essential to make for an enjoyable and fun time not having to worry about where to go for food and amenities”	“Better wifi/3g connectivity in the area would help!”
	“With the excitement of the day you will know information you may miss during other things you will be engaged in.”	“Did think it was updated enough plus no mobile phone signal on north coast so was useless on race week.”
	“Makes what I want to know readily available and easy to view”	Very sparse details of racing and time lagged. All info was available on website and Facebook in more detail.
Technology Non-Use:	“Local people were more helpful.”	“I would say you run the risk of spam or unwanted adds. But with the information used correctly people could be target for things they would enjoy”

<p>“Information was readily available”.</p>	<p>“Privacy could be impacted however it would be a good way to engage and let friends and new friends know what you are doing.”</p>
<p>“Excellent run event before the app.”</p>	<p>“Been coming that long now the apps no addition”</p>
<p>“The atmosphere is what makes race week”</p>	<p>“No need to use it. Nothing of value.”</p>
<p>"love the nw200 for what it is dont really need the app been going for so long and hope it goes on forever 🍀🍀🍀"</p>	<p>“Knew everything that was happening already.”</p>

The DEEDD framework has thus subsequently been updated to reveal the potential of both co-creation and co-destruction (see figure 5.9) through either technology use or non-use as a means of identifying and diagnosing potential experience value co-creation or co-destruction.

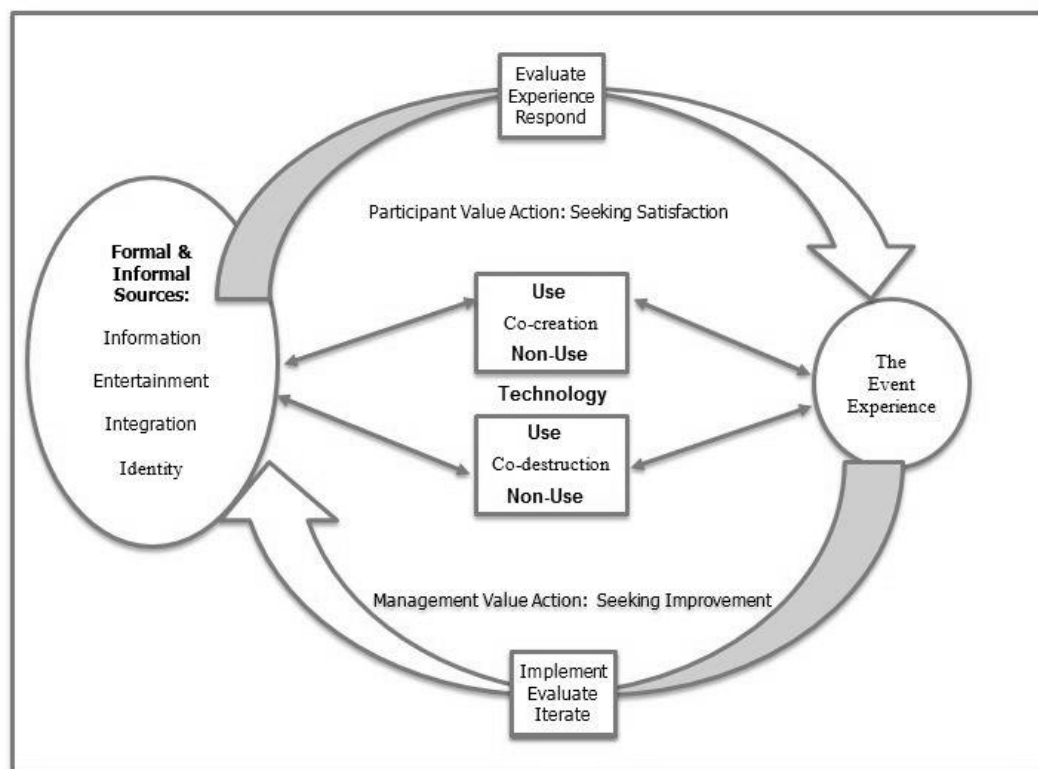
The range of technology, actors and place elements identified earlier in this chapter (see table 5.1) as part of the value dialogue within the Experience-scape, will be further considered in chapter six. This will facilitate the development

This explorative study, through utilisation of the Poll API for Facebook, has evaluated key communications, mobile technology and the event experience through the DEEDD Theoretical Framework. Findings highlight how this method can cost effectively provide greater reach, integration and understanding through engagement by harnessing social media platforms (Gymothy and Larsen, 2015; Buhalis and Foerste, 2015). This is particularly true given the scale and relative ease of targeting an event’s actual or potential fan-base through these platforms currently (Hudson and Hudson, 2013). In an applied sense, it does so in a cost-effective and sustainable manner, which is a critical economic opportunity in a period of fiscal challenge (Devine and Devine, 2016).

This study highlighted the ways that technology use and/or non-use impact the event experience. It did so by highlighting examples where ICTs could have a co-creating or co-destructive influence on the experience (Neuhofer, 2016a).

Utilised as a means of assessing the use of ICTs in an event, the updated DEEDD framework (Figure 5.9) can provide additional explorative opportunities to evaluate persons, relationships and themes within fan data (Miles et al., 2013; Kozinets, 2015). The framework has been updated to reflect the range of ‘formal and informal’ sources of experience enhancement sought by users of event apps in event contexts. The framework highlights the continuous feedback loop which is in operation between the consumer and the event provider through the event experience and its management (Getz, 2008; Buhalis and Amaranggana, 2013). The motivation of event fans seeking satisfaction and the motivation of management to seek improvements to meet the real-time and dynamic needs of participation through ICTs, has been evidenced by this study. These being most critical during the on-site digital experience where co-creation and co-destruction are the realities which are mitigated between fans involved digitally in B2C and C2C interactions around the event (Buhalis and Leung, 2018).

Figure 5-9 The Revised DEEDD Framework



5.5.1 From Simple to Smart – The Digital Event Experience

Data generated in this study highlights many of the challenges of the emerging smart event experience, where both co-creation and co-destruction mediated by personal technologies are real and potential outcomes (Neuhofer, 2016a). Think of the automation which is not intelligent in its mediation of experience or that is intelligent but not personalised sufficiently enough when playing the mediating role between participant, event, context and outcomes sought (Tussyadiah, 2017a). These digital touchpoints which happen right across the event journey are opportunities to bring about a more flow like state where well executed (and desired) but equally can cause a breakdown of trust between the event fan and the event's communications team if improperly planned (Bustard et al., 2018).

In updating the framework, based on the dataset, it is critical to highlight the range of opportunities (formal and informal) of which events can be experienced. Such as the simple word of mouth as highlighted by case 3 in summing up the variety of real world and digital chatter which is being consumed around the event itself. When relating to push notifications as part of digital event communications, he suggests to *“keep in mind they need to be timely along with the real-time info coming from bystanders etc.”*

Here, the bystander is now very much part of the network of sources through which certain digital event experiences are being driven. This is simply due to the prevalence of opportunity to influence or be influenced across the various platforms of ICTs and social media (Buhalis and Foerste, 2015). The availability of what Joo et al. (2013) terms as citizen journalism in an events context, supported with hyper connectivity, live content (text, audio, photo and video) and through their willingness and gratification to share, leads to a vast amount of data supply for uses and gratifications being generated. This integration also creates a motivation for media consumption far beyond and at times far superior to official event channels; particularly regarding timeliness realism and thus relevance (Inversini et al., 2016; Buhalis and Leung, 2018).

5.5.2 Co-creation, Co-destruction and an Outcomes Perspective

Initial analysis points to event spectators becoming less inhibited by technology and platform issues (Bolan, 2014). This framework, provides a new means to explore and investigate, in particular, the “on-site experience, where strong emotions, learning, and meaningful memories emerge” (Campos et al., 2015 p.29). This is of critical importance in the design of experience as Neuhofer (2016a, p.789) argues, given that “it is through technology use and application that value is contextually created or destroyed by tourists as individual actors.” This is one of the key elements that this study has empirically explored and subsequently evidenced (privacy, DEEDD challenges, usage barriers) as critical in deriving event experience satisfaction (Van Winkle et al., 2016).

Through a netnographic approach, an insight into a new empirical process to examine co-creating elements of event experiences, through social media has been tested (Buhalis and Foerste, 2015). It is useful as a means to explore the influences of technology as experienced subjectively at events (Tussyadiah, 2017a). This is critical in understanding the impact of ICTs on the evolving event experience phenomenon (Horbel et al., 2016).

The aim is to offer new avenues of exploration, focused on the emerging trend toward ‘custom-design’ of event experiences (Getz and Page, 2016, p.620). Arguably the easiest element of the event experience to customise is the digital event experience due to expanding consumption and advances toward ubiquitous connectivity (Luxford and Dickinson, 2015; Buhalis and Foerste, 2015). Thus, innovation in experience design, collaboratively co-created and personalised through social media platforms, which are predominantly served and consumed through mobile technologies, offers significant value to both attendees and event producers. ICTs such as event apps offer a means for scalable personalisation and positive experience outcomes where time is taken to analyse the events ecosystem (Wang et al., 2016).

The reach and economies of access to consumers through ICT are of such significance as to provide positively for future research. The opportunity to

test satisfaction of use of an event app through this method and across the multiphase event cycle offers new potential for deeper investigation of the important 'on-site' experience (Campos et al., 2015 p.29). The Polls API can thus facilitate (mixed methods) study of event participants through a survey of both open and closed questioning as a means of inducting critical insights about identifying and enhancing essential, generic and event-specific experience outcomes (Getz and Page, 2016). This research highlights that we are moving ever closer to the '*smart event experience*'. This is one which the author defines as experiences created through processes of personalisation driven by people, augmented by technologies, which seek to improve event outcomes both for the individual and for the event ecosystem as a whole (Bustard et al., 2017). Thus, further conceptual focus must be applied to Event Studies on this paradigmatic evolution.

As event fans continue to seek to integrate digitally in the scale as evidenced through this projective reflective analysis (Tussyadiah, 2017a), the event must seek to prioritise the various channels of integration and the opportunities and challenges these present. Becoming data skilled and digitally integrated is fast becoming an essential element for 'special events' success, particularly in Smart Tourism Destination contexts (Buhalis and Amaranggana, 2013; Koo et al., 2016).

5.5.3 Interaction, Engagement and Smartness of Event Fans

An important finding in relation to this research process has been that of an emerging typology of digital event fans. Through the analysis of the comments made by informants it is clear that there is a range of capability in terms of ICT use in event contexts as well as a willingness to engage in co-creation of event experience through ICT. The following table (5.3) presents examples of these newly presented digital event fan types.

Table 5-3 Digital Event Fan Engagement – Typology

Event Fan Type	ICT and Event Context	Granular Experience Opportunities
Smart Agents	“Perhaps location services should be able to tell who is actually watching the race on the circuit to help improve communication during red flag incidents and delays”	Significance, Growth, Safety/Security, Engagement, Satisfaction, Design, Co-creation, integration, interaction, involvement.
Dynamic ‘info-grated’ independents	“Depends on how much data you are requiring and what you will use it for.. less is best.”	Authenticity, Independence, Involvement, experience design, privacy protected co-creation.
Experience Co-creators	“Able to provide updates to others who don't have the app.”	Significance, Involvement, Engagement, Interaction, Growth
Static Viewers	"It's too invasive. I don't see how this app can personalise a large-scale event like this.”	Identity, Authenticity, Involvement, Growth, Interaction and Engagement

These examples of event engagement as a type of digital event fan will be further explored in the next chapter where the focus is placed on the emerging smart event experience and through an interpretive phenomenological analysis (Smith et al., 2009)

5.6 Chapter Summary

This chapter provided data relating the sample and approach taken in delivering this online projective reflective analysis (Tussyadiah, 2017a) and presented information relating the insights gained through exploring the Digital Event Experience. In doing so, the chapter completed by presenting an updated conceptual framework - the Digital Event Experience Diagnostic and Development Framework (Bustard et al., 2017). The evidence links to the need to further explore in more subjective detail, the emerging digital event experience and its importance in the unfolding of the cognitive, conative and affective realms of event participation (Getz and page, 2016).

Building on these findings, the focus is now placed on exploring how technology enabled MTM co-creation with event fans through ICTs can

improve the digital event experience. The findings of the applications of an Interpretive Phenomenological Analysis (IPA) of the digital event experience is presented as a means of providing an event-specific model through which further analysis can be applied.

Chapter 6 FINDINGS II

6.1 Introduction

This chapter continues to unlock the overarching question of this thesis by further assessing “*how event experiences are evolving in an era driven by ubiquitous connectivity, personalised experience and through smart and social technologies.*” The literature review (chapters 2 and 3) assessed the first objective of this thesis by ascertaining “*how event experiences and experience co-creation is changing through mobile technology and ICTs in the pre-event, event experience and post-event phases.*”. Subsequently, Chapter five addressed the “*critical experience outcomes sought through technology enabled MTM co-creation by spectators and participants of international events.*” This chapter reports the critical findings appraised through exploring “*how the event experience can be enhanced through technology enabled MTM co-creation from the consumer perspective.*” Following on from this chapter, there is a subsequent discussion of the empirical findings integrated with semi-structured interviews with stakeholders, event professionals and academics in the development of several theoretical propositions that address the central research question of this PhD and will draw us toward a conclusion.

6.2 Co-creating the Event Experience Through ICT

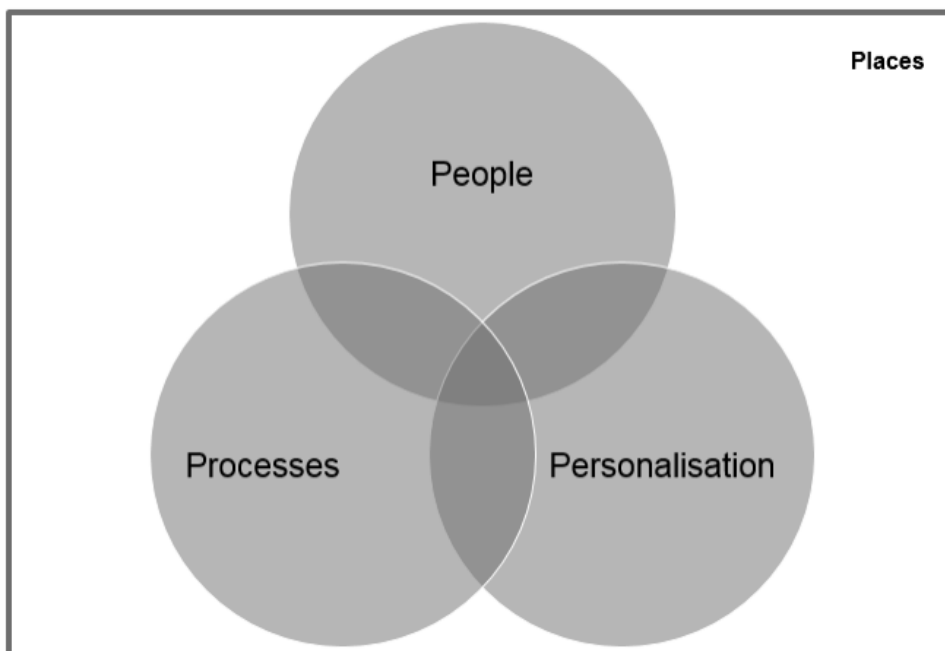
6.2.1 Overview

As previously stated, this chapter’s focus is “*to explore how co-creation with event fans through MTM enabled technology can improve the digital event experience.*” Evidence from this study highlights that the connectedness of event fans through ICTs such as social media is providing much higher value co-creation potential, particularly through the many to many (MTM) context. This research process sought to explore MTM and the evolving

event experience in the online world of event fans and the findings which follow reveal a rich opportunity emanating from value-co-creation in this context.

Taking a netnographic approach at the outset has ensured immersion and credibility in data procurement techniques that suitably address this critical research gap. Indeed, the following initial model of superordinate themes, which emerged during Interpretative Phenomenological Analysis (IPA), will be further explored individually. These themes emerged through the systematic breakdown of data into '*individual meaning units*' (Maykut and Morehouse, 1994), subsequently clustered into categories and finally explored across cases to emerge as themes. This emerged through a total of eight discrete cycles, conducted iteratively across the data analysis process (Smith et al., 2009).

Figure 6-1 Superordinate Themes - Co-creation and the Digital Event Experience



Thus, the aim of unpacking these emergent themes in a manner which helps in understanding experience value, as perceived by participants, will be examined through data collected from 5 online focus groups. Using the moves of IPA, a narrative presentation of these critical findings is facilitated.

6.3 Personalisation - The Subjective Pursuit of Experience Value

Highlighting the multifaceted nature of service dominant consumer personalisation actions, there is evident integration of people, resources, technology and expectations (Tussyadiah and Fessenmaier, 2009). Through this interplay, an appreciation for both the perceived and actual, as well as the opportunities and challenges presented through openness to personalisation of the event experience are exposed.

Personalisation is the holy grail of Services Marketing and is also a critical focus in current tourism and events literature (Campos et al., 2015). This is particularly given that event and tourism experiences of all kinds are shifting toward integration and connection through the Smart Tourism Destination paradigm (Buhalis and Amaranggana, 2015; Koo et al., 2016; Buhalis and Leung, 2018). Events are a key driver of tourism destination strategy, with cities predominantly selected as the preferred destination (Buhalis, 2000; Koo et al., 2016). That said, given the movement ever closer to ubiquitous connectivity through mobile technology, and advances in experience design that support experiences more effectively (Tussyadiah, 2017a), there is a notable increase in the opportunity for, and expectation of, a more digitally integrated and enhanced event experience at any locus (Luxford and Dickinson, 2015).

As Berridge (2012b) highlights, the event experience setting is critical to inducing participation in or directing observation of events. In modern event contexts and given the Service Dominant paradigm, spectators have significantly more opportunity to impact their experiences in event spaces now than ever before (Hoksbergen and Insch, 2016). The spillover of personal ICTs and the respondent upsurge in social media use has created significant opportunities (co-creation) and challenges (co-destruction) within the event experience. Firstly, focus is placed on the criticality of expectation and the outcomes sought by fans of the International NW200 road race.

6.3.1 Expectations

As Masterman (2014) highlights, where customer expectations increase, service quality and encounter must match and exceed this sought outcome

to maintain competitive advantage. In an event context, the expectations which one arrives at an experience with can be evidenced as a critical facet across the experience-scape, with additional foresight now required in relation to the digital event experience which unfolds (Luxford and Dickinson, 2015). Fans are clear in communicating their perceptions and expectations around their preferred event experience (Hutchins, 2016). The following example goes somewhat to highlighting one challenge of competing priorities, where the North West 200 is aiming to widen its appeal and broaden its programming but seeking to maintain its current fanbase (Nordvall et al., 2014). CB (male) is adamant about what his event experience is and what his informational needs are:

“Without a doubt... - the NW200 is a competition after all, not a music concert and we need to know who's winning.”

This form of ‘without a doubt’ response, highlights the absolute nature of many individual perspectives of their event experience (Ziakas and Boukas, 2013). The subjective nature of experience challenges through its multiplicity across the event participant spectrum. There is perceptively a hierarchy of needs which must be fulfilled to ensure any level of personalisation, and this is explored next. What is most challenging for event providers, is the heightened sensitivity to a service lacking in any way, regardless of whether digital elements are free, paid for, owned or overlaid (Wang and Fesenmaier, 2014). Regarding personalisation, there is evidently a passionate fan base who will often explore any avenue to satisfy their curiosity for event information. One strong example of this type of information innovativeness (Van Winkle et al., 2016) of significance was shared by LF (female) who confides:

“If there's an app for something I'm interested in, I'll download it. Bike racing is my passion, so I've downloaded all I can including the one for Macau despite not being able to read Chinese.”

As the literature highlights, not all event fans have such an insatiable appetite as LF for active experiences around her ‘passion’ (Hoksbergen and Insch, 2016). When consideration for the spectrum of fan engagement is taken, it is critical for event organisers to facilitate opportunities of

experience enhancement directed through their social media accounts or apps as is highlighted by the comment of KS (female):

“For me it's the more info the better. I have picked up whatever is available for my mobile”

Mobile is a conduit to a world of other contexts, exploration, commitments and clarifications of personal identity (Wang et al., 2012). Mobile is ever increasing in its pull capacity and even more demanding of attention, through the integration of pervasive social technologies than one would have imagined possible before Facebook, some short years ago. Many participant perspectives are around integrating those social technologies in ways which help to inform them in more dynamic and socially constructed forms as well as supported through more conventional digital channels. CV (female) when presenting what other mobile experiences improve her event experience suggests:

“Social media would be the main one. Especially with technology advancing every day. Social media keeps you up to date on daily events everywhere not just the NW200. Main ones Facebook, twitter, and news app”

Underpinning this movement to social media dependency for information surrounding this event is a view held by RWC (male). He highlights the central importance to his experience of *‘being kept in the loop’*. Participants are expectant of more dynamic information, live and real-time and are building faster and more integrated digital touch points to facilitate mobility in the location of their experience (Lee et al., 2017).

“Of all the things I was saying the most important part that would help my event experience would be live feeds for qualifying and racing results as well as being kept in the loop and also better signal across the NW200 track.”

Beyond the contexts of locating one’s digital experience, there is then the pursuit of an ever more personal one. Personalisation, by definition, is the seeking or utilising of, a resource or resources in a unique manner or context of personal preference and/or design. LF (female) presents a context of the multiplicity of experience being sought by acknowledging that personalisation is often the same thing just used differently:

"What I want is what the others are requesting, I would just be using it for something different. It's a great thing to have, especially when races are so tight!"

Prioritising key digital elements based on what experience outcomes fans seek, requires an open dialogue for co-creation opportunities to be explored. In event contexts, it is therefore critical to explore and prioritise the expectations of fans, which are often based on other events or prior experiences.

6.3.2 Prior Experiences

According to Wood (2009), event experiences are often intertwined with prior participant experiences of some comparability. Whether event programming, food, hospitality, hygiene, crowd, accessibility or amenities – what one has prior experience of, will be a powerful mediator in the satisfaction around one's subsequent event experiences, particularly those of a similar nature (Horbel et al., 2016). In some ways, the digital event experience is even more susceptible to such comparative bias due to the plethora of micro-engagement opportunities which exist across digital domains (Inversini et al., 2016). Indicative of this challenge, participants often cited the lack of live timings through the event app as a particularly dissatisfying element. As JH (male) highlights, this digital opportunity's exclusion is less easy to accept given the availability across similar events:

"Yea as mentioned above, it is the Speedhive app allows for live timings at races such as Armoy road races. I'm aware of the TT app having integrated live timings too."

In the same vein, SM's prior exposure to more integrated event technology (Raj et al., 2017) is one who focuses his thoughts on an improved experience in multiple contexts as this comment suggests:

"I've been at the MotoGP and I can use live timing, but it wasn't as important due to being able to see the positions on the screen but when I am unable to watch the racing at home, I would use live timing etc which keeps you connected. It improves the experience a lot as you are not wondering for half the race where a certain rider is or who is leading etc."

Prior experience, where communications technology positively impacts, will certainly lead to an appetite for a more personalised context, where technology and infrastructure are perceived to be available but underutilised. This is again evidenced in dialogue with RP (male):

“Most of the road racing in the south have live timings through the Mylaps Speedhive app, not sure about the north west. Could this be integrated into the nw200 app?”

The review of prior experience, whether at the event itself or of other events of a similar nature is clearly an opportunity for engagement, review, renewal and innovation for both participants and those involved in experience design (Tussyadiah, 2017a).

6.3.3 Resources

There are significant opportunities presented about both operant and operand resource integration within the event experience (Vargo and Lusch, 2008a; Getz and Page, 2016) and of which technology barriers are reducing as connectivity and technology co-evolve to provide more immersion opportunities. Most significantly, the discussions within focus groups highlighted just how much more engaged in engineering mobile mediated digital experiences most event spectators are in comparison to the lack of focus that the digitally mediated event experience garners in the literature (Luxford and Dickinson, 2015; Raj et al., 2017).

The operant resource existent in the event crowd is a relatively untapped resource for experience design or event innovation relating to events. SH (male) states:

“If it's improvements you mean I'd definitely like to see that interactive 3D style course map, with 360° videos of vantage points etc that would be a stand out feature for me. This would help fans both before and during the event. Also, the idea of some personalisation by choosing teams and riders that you want to follow in particular.”

He further highlights:

“Another thing I was thinking would be some way to personalise the app in ways like choosing favourite riders so then possibilities of notifications. I’m sure it would be a technical nightmare to notify in real time of retirements or position at the end of each lap etc? Could work well in practice perhaps?”

In Smart Tourism literature, destinations and by extension event hosts are beginning to explore the potential of the technology-mediated human mobility phenomenon (Lamsfus et al., 2015) and core to this paradigm is ‘smartness’, of which human capital is a central factor (Buhalis and Amaranggana, 2013). From a special event perspective, the Smart Tourism destination definition must evolve with more inclusion of the user more central in their desire to become creatives in this complex, adaptive and dynamic paradigm of many to many (MTM) co-creation (Best et al., 2018). This is particularly apparent given the increased integration of consumers’ operant and operand resources, which are often critical to creating successful technology enhanced tourist experiences.

Spectators of events are often better experienced and positioned to explore how operand event resources (such as the race programme) could improve the event experience (Gyimóthy and Larsen, 2015). In this study, JM (male) highlighted experience enhancement potential through physical and digital operand resource integration through the app and the event programme by suggesting:

“...you could link QR codes to rider profiles, race stats and maybe even pins on google maps for places to watch/prohibited areas.”

Findings here support the potential of experience of technologies in other contexts and experimentation in new contexts as offering significant opportunity for event management to integrate ideation and user innovation into experience enhancement (Hjalager, 2010). One critical route is via social media engagement throughout the phases of the event – pre and post event but with significant emerging opportunity for deeper immersion ‘on-site’. This could be facilitated by using Facebook’s new stories feature as an example or live and 360-degree user-generated content to entertain (Robertson et al., 2015). Consumers tacitly engaging in creating real-time, big data through their permission-based app use, which could create more

engaged and integrated smart event experiences guided in real-time toward co-creation opportunities (Raj et al., 2017). This mediating role of technology and proliferation of channels and contexts and their spill over into experiences and expectations is ever more impactful (for better or worse) on experience outcomes (Wang et al., 2014b).

6.3.4 Technology Spill

The technology spill-over effect is far-reaching in human experience through ICTs and particularly in travel experiences (Mckay and Vogt, 2012; Buhalis and Foerste, 2015). Data from our research highlights that in this event universe, ICTs and social media use in event contexts at all stages of the event experience are almost universally accepted as the norm. It must be acknowledged that all participants in this research are social media users and thus have a bias toward ICT use. Certainly, in younger demographics such as millennials like RWC (male), it is much more prevalent due to the spillover of social technologies, the range and pervasiveness. He confides:

“I’ve all social media apps from Facebook to snapchat”

This spillover of ICTs into the event experience can often be presented as somewhat unsociable, like in the earlier referenced examples from spectator sports such as football and baseball where fans of these more spectator involved sports actively encourage disconnection to gain a deeper on-site connection (Hutchins, 2016). That said, in a sport dominated (like motor racing) by statistics, positions and timing, social media is not necessarily viewed in the same light. At times it can be felt to create new opportunities for both deeper integration and possibly even sociability. For instance, in this study of the North West 200 JH (male) discussed the magnitude of benefit he has derived from his ICTs:

“By a large margin as i was able to track the riders, get average lap times and met new friends who wanted to know the times and end up staying with us for the remainder of the weekend.”

This sociality was somewhat unique and not a universal sense about experience value, as some users, arguably of more senior age, were more

likely to contend that mobile technology use was unwarranted at key parts of the event experience, as with CC (male) who pointed out other media touchpoints:

"I'm usually sat on the grandstand at the paddock so between that and watching the big screen I barely take the phone out of my pocket unless it's between races or a red flag"

A similar point was made by AR (male) who discussed how it was used more pre-race:

"As others have said Twitter is handy especially on the practice days so to integrate it would be good. Also, as EB says once used to find the info it goes into my pocket and the bikes are what I want lol."

Neuhofer (2017), highlights the relative experience enhancement of technology such as an app can quickly be in juxtaposition to the lived technology-enhanced experience, and as such must facilitate this disconnection for particular contexts of experience personalisation. A full immersion (although potentially a spillover experience in and of itself) is clearly not the real experience which many, like case AR seek. Interestingly, AR is clearly supportive of ICT use as event support in many contexts and is clear on the benefits and potential impact:

"To be honest, in this day and age with technology at the forefront of everything I think more info like timings or the twitter feed to let everyone know that a rider is ok if they fall gives people a sense of relief too, therefore they can maybe enjoy the day more. I don't think it would reduce my experience, I think it would be beneficial. A built-in radio into the app would be good too but then you raise the issue of being able to connect to the network with so many people about."

Motorsports are unique in terms of risk but certainly not the only events which affect peoples' states and as such, through authenticity, peak event interest and meaning (Ziakas and Boukas, 2014). Devine and Carruthers in Yeoman et al. (2014) argue that these free-flowing and high-risk activities are often an event's unique selling point. If one were at Pamplona for the charging of the bulls, an event where impacts are expected, it is likely to create a similar interest around incidents, and digital is one channel where such affective experience information is sought. It is evident throughout much of the discord that in this context, were danger and incidents are

somewhat part of the experience (Patterson and Getz, 2013). There is a desire to be more connected to an ongoing and reassuring feed of information through which one can draw comfort through insights and live updates thus feeling more ‘in the loop’.

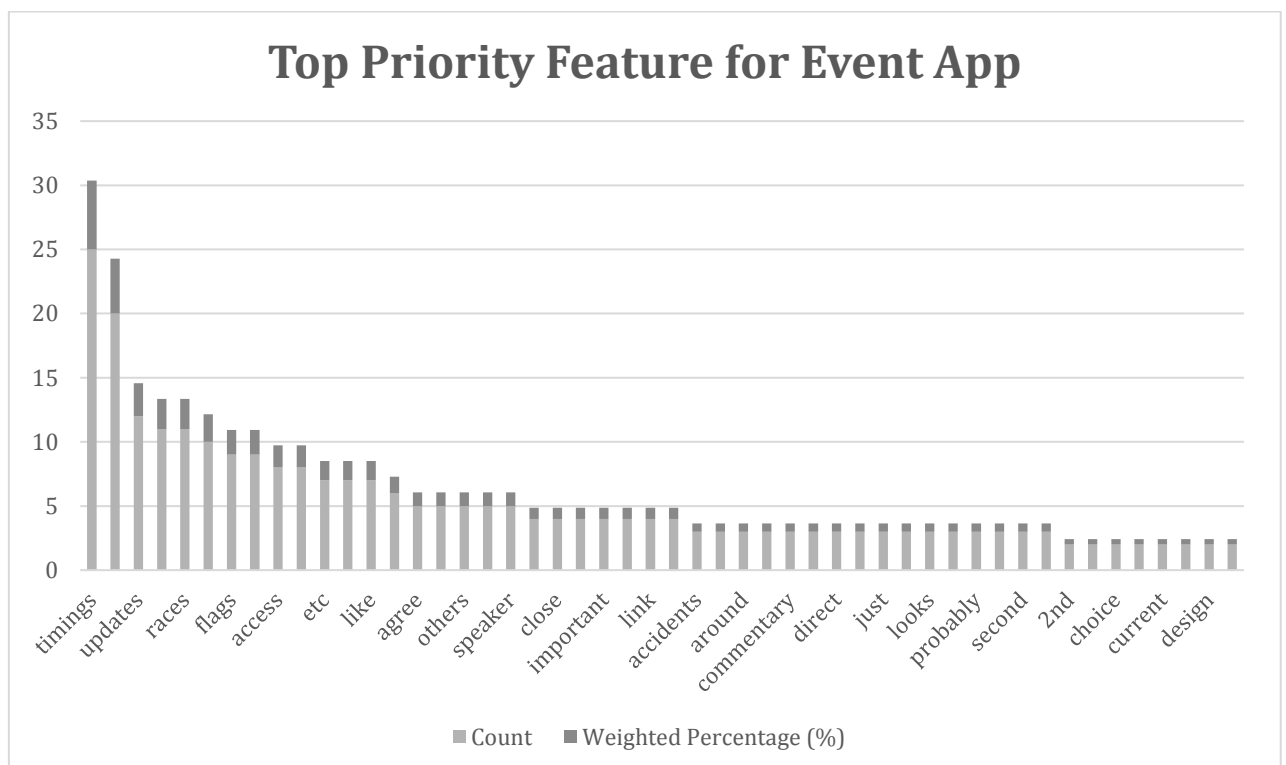
6.4 Processes - and the Creation or Destruction of Experience Value

Recent studies such as Horbel et al. (2016) reveal an ever more complex ecosystem of actors and contexts through which event spectators seek to co-create their experiences. The data induced by these online focus groups are rich in content for further and deeper analysis and understanding of the various processes of digital event experience engagement.

6.4.1 Preference in Processing Experience Value

In this study, participants revealed clear preferences for inclusion to their digital event experience with significant uniformity across cases, demographics and groups. Figure 6.1 highlights the most frequent stemmed words created from the responses about the event app’s function, where participants were asked if they could “*pick only one factor that was most important to you, what would it be?*”

Figure 6-2 - Top Priority Feature for Event App



Further developing context around critical features, in the discussion, KS was clear in her appraisal around the importance of a more integrated and live digital on-site experience during race days. When prompted about her number 1 priority for an event app, she suggested:

“Improving the communication on days whether this is via live feed or push notifications.”

The highly recurrent theme of live timings and will for a more dynamic information flow was somewhat universal. As we can see, an appetite for this live functionality can be visualised in the preceding figure through the positioning of updates, results and radio as race information. Other issues that featured predominantly was safety and scheduling. For instance, MH (male) discussed how he feels experience value can be created:

“Push notifications on road closures, rescheduled races, red flags etc would be awesome!”

Also, when quizzed in more depth, he further added the potential opportunity to introduce elements of co-production in the process of personalising the experience by meeting event fans expectations:

“Re: different expectations, push notification settings should allow everyone to tailor it to their needs.”

According to Neuhofer et al. (2015a), having control of the context and style of experience is a critical desire of services marketing and is a significant focus in relation to the process of experience personalisation in digital contexts. Apart from the functionality and performance elements as highlighted above, processes of personalisation are also governed by aesthetics. LF (female) notes of prior experience with another event app:

“It's the format really. There's nothing more exciting than going and opening the Isle of Man TT races app and seeing down to the very second when the bikes will be out.”

Here, evidence of the value of preference, where a past experience, and familiarity governs one's wishes. As such, this creates a significant dilemma as well as an opportunity for experience design; one size may not fit all but advances in interface personalisation and experience design are creating ever more opportunity.

6.4.2 Contexts and the Process of Experience Enhancement

According to Berridge (2007), there is always a certain seeking of 'exclusivity' in how value is created in event contexts. Whether intrinsic or extrinsic in nature, event experience enhancement is often sought through a process of personalisation which provides something unique and of personal value (Berridge, 2012b). In this study, respondent MH suggests his event experience was enhanced through Facebook and Twitter:

"Twitter can really help as there can be really up to date info from the pits on there. I think news on William Dunlop's team change last year was on Twitter and Facebook before the media got hold of it."

This ability to almost 'live' the experience of his heroes, who are also keen to connect in ever more unique ways with their fan base, adds a new dimension to the event experience (Kim and Sang, 2016). The potential value of sensing an even closer relationship to elements of the event experience or opportunities to increase one's participative utility from the event experience cannot be understated (Morgan, 2008).

Exclusivity is one sought event benefit, but there are clearly wider event experience outcomes which can be fulfilled also. This was highlighted by SJ (female) when discussing the critical functions of an event app:

"Links to tickets sales... for paddock and other events talks etc.. perhaps link to restaurants and other things in the surrounding area. A sort of event concierge, to help me around and enhance the event."

According to Horbel et al. (2016), events are embedded in an ecosystem which is fast becoming more digitally integrated and as such presents one of the more significant linkages of emerging Smart Tourism destination infrastructure (Buonincontri and Micera, 2016; Narbona and Arasa, 2016). As a means of visualising this ecosystem, Buhalis's (2000) 6A's framework of marketing competitiveness, which integrates attractions, accessibility, activities, amenities, available packages and ancillary services provides a useful framework to conceptualise service around a special event (Koo et al., 2016). Given the nature of how people are seeking opportunities in real-time and via mobile, this model is at the precipice of a further 7th A being

added. Artificial Intelligence (AI) is becoming more powerful in the provision of live and dynamic information to support more intuitive contexts of experience enhancement and thus is worthy of more attention (Robertson et al., 2015; Bustard et al., 2016; Buhalis and Leung, 2018).

Connecting these experience strands through one interface, potentially as an event experience or destination, is already existent in the minds of event fans (Luxford and Dickinson, 2015). This is outlined by RP (male), who points out the opportunity when discussing the current event app's benefits:

"The positives would be having everything in a central location, Twitter, Facebook, Google maps, news. The app covers all bases."

A digital experience which can interconnect the ecosystem of the entire event experience or at least facilitate that connectivity will undoubtedly be the preferred option of mobile technology users. Critical to this success is the balancing of the technology's flipside, where challenges emerge about on-site experience through motivations by some consumers toward dis-connectivity from ICTs, as a means of realising a more authentic and liminal experience (Neuhofer, 2017).

6.4.3 Creation of Experience Value

According to Bolan (2014), digital event experiences require significant strategic thought. Even if an event is not providing a platform such as a bespoke app, it is still being experienced and measured in value terms at some level against other platforms of engagement and through value derived through related ICTs by event consumers.

In this study, it was obvious that fans are clear on the types of experience value they perceive. This is often understood through experience, where prior experience needs have been met, or awareness of a solution exists. In the following example, RC is both clear on what experience outcomes are being sought but genuinely sympathetic to the constraints around events for the creation of this value. Thus, the very dialogue around experience can be value creating:

“Compared to the NW200 app, take a look at the TT app, I know they probably have an unlimited budget although it has a great layout, is easy to use, has plenty of useful features and you keep going back to using it.”

This awareness of constraints is a significant benefit which can be gained through engaging event fans in experience design dialogue, but as with all experiences, authenticity plays a critical role (Tussyadiah, 2017a). Social capital and the credibility that can be acquired from open, honest dialogue with savvy event goers is not to be underestimated in these value terms (Quinn, 2013). A clear benefit of integrating event users through digital media is particularly positive for those who are temporarily or permanently dislocated from the event (Hudson and Hudson, 2013). Changes in working habits and shorter holiday experiences impact on how events are now consumed (Finkel et al., 2013). KS (female) highlights this contemporary phenomenon in the following comment:

“I use it to keep up to date particularly on each day for updates as I am not fortunate enough to be there for it all.”

According to Hutchins (2016), supporting such dislocation is not always viewed as positive, with some event fans viewing this as one of the major challenges of encouraging more participation in the event. The plethora of means of digital event engagement is explored, and the challenges these create to the event experience are explored later in this chapter but first to an example of where digital may assist in locating event goers to their best experience possibility. CC (male) shares just such a perspective:

“Well I think more could be added to the map (link that leads to google maps) some spectators come over to see high-speed action or technical sections of the track so if you add more information and pictures/video links from the spectator's point of view of that section it will let visitors know what to expect.”

Whilst bespoke or general release ICTs can create experience value if poorly integrated, they can also reduce value and at worst, destroy it as will be revealed in the following section.

6.4.4 Challenges to Experience Enhancement (or Co-Destruction)

According to Henderson and Bowley (2010, p.239), social media are “collaborative online applications and technologies that enable participation, connectivity, user-generated content (UGC), sharing of information, and collaboration amongst a community of users.” This connectivity will continue to be a major challenge due to many interoperable and other usage barriers inherent in hardware and software. This study concurs with Luxford and Dickinson (2015) in highlighting that this is also a challenge in crowded environments where the demand for bandwidth is seemingly growing at a faster pace than the ability of networks and providers to supply (Gretzel et al., 2015c). The volume of live video through messaging apps and other social media platforms means that a plateau of consistency of experience is ever harder to reach as the numbers build and demand for connectivity increases as evidenced in SH’s (male) comment:

“If you are on O2 network it’s hard to get any app to work during the latter part of the race week I know this is outside your control but it’s frustrating. I personally don’t have Twitter, but it seems to be fastest updated feed of them all, so if the NW app had that kind of feed and also what’s been said above more integration with other social media platforms it would help.”

What one can derive from this comment is that the digital experience requires some loading balance, or some means by which, like with traffic management or visitor flows, alternative ‘offline’ experiencing can be facilitated (Neuhofer et al., 2015a). Indeed, through some event consumer’s eyes, it could be that there is a case for a more prohibitive approach to assure “live experience” value is not reduced as AR (male) highlights:

“Being there in person is the thrill of it all, live streaming will and has killed off some spectators as they just sit on their sofa’s instead of supporting the event.”

However, there are other perspectives from more passive event participation contexts. In these circumstances, experience value is not necessarily lessened through live content as SH (male) presents in his comment:

“I also think live video on race days and practice would be a great addition straight from the app again saving the need to go via the BBC sports site. Some before mentioned they thought this would deter people from attending in person, I disagree because personally this past 4/5 years I try to get to a vantage point like the start/finish area, so I can watch all the action around the whole course on the big screen there, years ago, we had to wait until the tv programme aired to see half of what actually happened and how the races unfolded. Again, there is a problem with phone signal for me if I knew I could stream the races live with decent quality I would not have to go to the big screen area instead find a better vantage point for the up-close action and watch the riders go around the rest of the track via a phone or tablet, that in my opinion is the ideal scenario.”

These are clearly challenging and strategically important considerations for event experience design (Nordvall et al., 2014). According to Tussyadiah and Wang (2016a), where experience enhancement through smartphone technology has been adopted as of strategic importance, connectivity, creativity and ICT capacities are all critical factors. Successful event experience enhancement is reliant on the application of a balanced digital strategy, but a mediocre experience can be detrimental (Neuhofer et al., 2016a). Indeed, how people identify with events and their core beliefs are some of the subsequent issues explored through subsequent findings.

6.5 People - Relational Pursuit of Experience Value

Symbolism (Nordvall et al., 2014) and identity (Kinnunen and Haahti, 2015) are just some of the areas which both the individual and the community (in the context of events) derive value. It is thus an area that may yield opportunities for event experience development (Berridge, 2014a) through the digitally integrated means by which fans engage with the event.

6.5.1 Identities and Experience

According to Morgan (2008), identity and its potency in mediating event experiences cannot be understated. Much of this study's data reflects that belonging and affiliation to an identity is a key motivator and driver of engagement. An example is physically revealed by DB (male) who has deeply integrated his identity to the event community and is clearly

embedded in this identity in referencing gaining valued experience benefits “*threw other biker mates*” or the subsequent evidence of his often-opposing position to the current experience. Familiarity as a volunteer or experience from other event contexts can often manifest as frustration if not managed. These can help to form a somewhat disillusioned perspective across some fans more experienced with the event (Robertson et al., 2015). It is often shared by members through communicating frustrations with the current delivery of elements of the experience (Kinnunen and Haahti, 2015). In another example, DB (male) vents his frustration with the event app and the event management team in general:

*“Look they need sorted out everything with the app as it sh*** maybe with this new hotel getting done mite improve things they have no respect for spectators or Marshalled they only care about the big teams and they get looked after better than anyone else.”*

This statement reveals tacit knowledge of wider event impacts (new hotel development at the start/finish point planned for 2019) but also reveals a distinct hurt and despondency and near hostility towards the event management. This is the most extreme case from the data but does highlight the challenges of event experiences developing and modernising, potentially upsetting a loyal fan base. Apart from familiarity (Uriely, 2005) or what is proposed here as ‘veteranicity’ as an event identity, which was revealed by the myriad responses to most memorable experience, there were other distinct identities which are worthy of note.

Casual fans, often from the locality of the event or those just seeking to explore the people and hospitality elements are also prevalent in the data. The event app has as yet unrecognised support as it allows the local community to keep abreast of the latest developments (Van Niekerk, 2017). Agreeing with the perspective of Smith (2011) on community engagement, this is a further opportunity to work with community as the comment from RD (male) reveals:

“I have to confess that I'm not a bike fanatic and only take an interest during the NW200. Therefore, I'm not really into race stats etc, and tended to utilise the app for timings of events/road closures/races etc. Hope this doesn't offend any of you bike fanatics!!!”

Fundamentally (and unsurprisingly) events rely on participants being able to negotiate their experience across contexts, locations, networks and time. This links to Horbel et al.'s (2016, p.524) perspective on value creation within ecosystems where the "relative influence of the contributions of the main co-creating actors on spectators' experience and the importance of the dimensions of spectators' perceived value vary considerably depending on the context in which value was co-created."

Thus, further exploration of these relationships between individual and community is the subject in the following section.

6.5.2 Communities of Experience

As Patterson and Getz (2013) elude, events are often communities of celebration involving people, hobbies and other event specifics that create the core phenomenon of experience. Ziakas and Boukas (2013, p.37) rightly ask "where can the line be drawn between the sense of community and *communitas*, and based on what processes, characteristics and outcomes this distinction can be made?" This creates an important area for further understanding to be derived to support enhanced event experiences. The following section seeks to unpack some of these contexts.

SMcC (male) highlights the varying fan contexts and the types of use being sought:

"Personally I am very into the racing, and I feel it would make my experience better instead of having to wait and try and find out the results, or if you're following a certain person and they aren't in the top three, it can be difficult to find their position. Yes, there are a lot of different fans at the event, ranging from first timers/children who just like to watch it, all the way up to people who would follow every race religiously."

This event experience has a magnetic effect over a lifetime as it is to some degree a lifestyle choice and a very particular expression of identity. DS (male) shares how the event experience is clearly tied to a sense of camaraderie:

"My best NW200 has to be when I was in my twenty's, when there was a group of us on bikes and it was and still is the highlight of the year."

Event experiences could well leverage these rituals in many ways and by a multitude of digital and physical touchpoints as a means of lengthening the event engagement and immersion and deepening the ties with fans.

SC (male) highlights the potential of this outcome, where the event becomes a pilgrimage of sorts. Interconnecting with these emerging stories through the event diaspora through digital is one of many potential opportunities to deepen experience:

“There's 6 of us that come up from Cornwall for two weeks each May. Dad started the trip 15 years ago and I've been going for the past 6. Wouldn't miss it!”

Family and tradition are two critical factors in the creation of habits and participation in activities (Finkel et al. 2013). The ability for events to provide some level of automation to suit particular event identities could offer significant engagement benefits for participant experiences through awareness building and networking of personalised recommendations. S O'H (female) highlighted that opportunity for further personalisation and experience enhancement through the following quote:

“Last year was the first year I had considered taking the kids to the event and it was the week they got chicken-pox so we didn't go. I'm not totally sure. I guess even if you can get notifications as to when family and other events are on but that probably depends on the user's settings.”

As well as further personalisation in a localised context, ultimately, communities of experience extend beyond these boundaries (Hudson and Hudson, 2013). To this end, opportunities exist through more open thinking, planning and particularly with mind of Smart Tourism destination principles applied to events (Koo et al., 2016). Through interoperable ICTs and open platforms as proposed by Buhalis and Amaranggana (2013), integrations of similar context could thus be opened up in new ways, such as to create and facilitate a deepening of experience across a range of events such as a league or series. EB (male) points to one such opportunity in the following:

“On a slightly different note, for me it would be quite handy to have an app which covered all national and international road racing in N. Ireland/ Ireland.. Maybe representatives of each event and a body like the road racing Ireland (RRI) could team up and create something like this.”

For events such as these which have a calendar and distinct linkage, such an enhancement proposed by EB could go some way to improving all digitally mediated experiences through a cooperative approach (Robertson et al., 2015). A Joint up approach of that nature, due to its scale, could act as a platform and catalyst for other event benefits. Such as retaining fans, increasing ticket and programme sales and moving people from casual support to a more active fan, with such a rising tide lifting all boats, metaphorically speaking (Bustard et al., 2018).

6.5.3 Communication, Creativity and Cooperation Bringing Value in Experience

Although the online focus groups are related to collecting the data for this study, with a wider angle, the process offers an empirical overview of online co-creation to support experience design (Tussyadiah, 2017a). Following such a distinction and focusing firmly on the phenomenon of event fans co-creating value through such connectedness, there is wider potential for more dynamic and open systems enhancing the digital event experience (Buhalis and Amaranggana, 2013; Gretzel et al., 2015c). The following views expressed by participants highlight this potential for a central event interface, or even for co-production of experience elements of the event app. Evidence of experience enhancement potential comes from KMcC (female) with her comment:

“Direct access to the live radio stream is the main one for me (on top of the live timings) to be able to get everything all in one place would be great, instead of having to switch between the app and others, such as Twitter, to try and stay up to date on proceedings.”

Coordinated digital content integrated and mediated for consumption based on the personalised experience preferences of event goers is more achievable and realistic if open systems integration can be mediated for an on behalf of event fans (Bolan, 2014). Convenience and ease of use were some of the most cited preferences for an event app, and DM (male) shares an example of where communication and creativity fuse within a mediated digital experience to create rich and immersive experiences through crowdsourced content (Bolan, 2014; Hoksbergen and Insch, 2016):

“As mentioned above I feel the app is great to save looking on endless sites for results, weather etc and can all be done in the power of the mobile. Folk being able to share their images from the races is quite interesting too.”

According to Gyimóthy and Larson (2015), not only is crowdsourcing of entertainment a real and desirable event fan integration, the ability of fans to use platforms to improve experience and design is ever more achievable through the creative suite now existent on a smartphone. Given the instances of content designed, or screenshots taken to convey perspectives, preferences and potential outcomes, CC (male) offered such an example of digital design signposting along with the following quote:

“I’ve taken a screen grab to show exactly the sort of thing. I’ll post an example of what I mean..”

There was an awareness and a willingness displayed through discussions to bring more and more content into the event experience in ways which tapped crowdsourcing, co-production and for some manifest as co-creation. TS (male) highlighted one such channel where ‘with no effort’ sharing could be achieved across networks more cooperatively. This could be achieved by the event’s app and leverage other content being created and shared by fans thus enhancing the digital experience (Hudson and Hudson, 2013).

“With the option of submitting a photo already there, having an Instagram account that displays user submitted images easily assessable from in the app may be an idea. Instagram is also easily incorporated into Facebook and Twitter, so images shared there can be spread out with no effort to the other social networks.”

Fans and visitors creating and sharing content has had a significant impact on experience since the advent of social media (Quinn, 2013). What these findings highlight is the distinct co-creation capabilities existent around event ecosystems, through capable and willing fans wishing to be part of a process of improving the experience before during and after, but particularly toward the critical on-site experience (Campos et al., 2015).

6.5.4 Rituals, Nostalgia and Symbolism

In chapter two Szokolczai's (2009) perspective on the anthropological roots of events coupled with Getz (2012) planned event model highlights the age-old pursuit of experiences and how powerful and significant the impact of liminal aspects of event participation are (Getz and Page, 2016). The many rituals and sensory experiences recounted which are accumulated by event fans over time, hold deep meaning and are clear touch points about what makes their event experience most memorable and engaging for them.

DS (male) presents this vividly in an account around his pre-event 'ritual':

"Back then there was a group of us who run about together every night. There was about 15 bikes on a regular basis, Meeting up for the NW was the highlight of the year, lots of preparation, polish and elbow grease to get our bikes in prime condition, the ride up from Belfast to Portrush was a ritual, a brilliant feeling, together we took over the road, greatest memories."

Concurring with Morgan's (2007a) perspective of symbolic meaning such as nostalgia vs relevance, the depth of derived pleasure from memorability and camaraderie is powerful. It is revitalised through the memory of these rituals which are clearly something which fans with experience (veteranicity) see as an identity matter (Patterson and Getz, 2013). Taking this into the digital realm for 'post hoc' experiencing opportunities, is an emerging trend (Gyimóthy and Larson, 2015). Rituals go beyond the individual (Andersson and Armbrecht, 2014) and are often full family affairs as we see with CV (female) who confides:

"Yes my younger brother is into bikes and he also attends every year. It's a family ritual."

Family, ritual, tradition and nostalgia are encapsulated most eloquently by JH (male) whose experience was most memorable and vividly remembered, critically, as a means of connecting young and old through symbolism, across time and experience:

“Favourite experience, last year 2015, my father and i always watched the nw200 via the live stream but never visited, his birthday was just around the corner so i purchased grandstand tickets to surprise him with, he was lost for words no doubt on his birthday, BBC had contacted me on filming our journey up in our little red vw t25, race day came and we were in our seats, i could see the excitement in his face, engines started and off they went, ill never forget the look on dads face after the flag dropped, i had returned him to a tradition after 25 years, which is now a new family tradition, and that folks is my best experience.”

Many other sensory propositions were presented about the event experience, which in some cases, for newer fans, would be more liminoid and distinct, but which evidently become part of the addiction and appeal for loyal fans. EB (male) highlights clearly what adds to the overall event experience which drives his participation:

“Hard to beat.. The speed, the smell, the sound.. All highly addictive.”

The earlier conceptual exploration of symbolism and nostalgia highlighted why these are critical elements of many event experiences (Morgan, 2008). This is due to the power of rituals, symbolism and nostalgia in constructing our realities (Szokolczai, 2009). The digital event experience presents significant numbers of touchpoints for amplifying emotions at key times around the event journey. In the following SC (male) shares one such means by which event fans could engage with such nostalgic moments:

“Maybe a “past highlights feature” showing some of the memorable moments over the years?”

OSG (male) also eludes to the potential of integrating more nostalgia into the app experience by leveraging riders, teams and event celebrities:

“...the other idea I had was maybe a wall of fame not sure what your thoughts are?”

As discussed in the literature review, the integration of resources (Vargo and Lusch, 2004) is critical to co-creation and more particularly with ICTs (Bharti et al., 2015). Clearly, more integrated platforms could offer such powerful and memorable touch points more easily at present. When one thinks of ‘friendaversaries’ on Facebook, and the automated or co-produced experiences which are now prevalent in social media, one can envision

platforms where we can experience self-immersion in such nostalgia. Hearing and sensing the many symbols of experience and increasing the connection with ritualised moments across space and time in mobile, augmented and immersive ways. Our focus moves to the locations of these experiences and how these dimensions are evolving around the digital event experience.

6.6 Places - The Locations of Experience Value

The temporal and multiphasic nature of events, and the realms through which modern events are experienced, is suitably represented in terms of physical (eg. weather, geography), digital (platforms, services and social media). Emerging trends such as the integrated realms of AR and more immersive VR (Buhalis and Foerste, 2015; Tussyadiah, 2017b) cannot be discounted. This analysis was primarily focused on the digital event experience, but in exploring the event app, it is clear to see the plethora of platforms and channels that are being accessed by the ever-growing populace of 'digital natives' (Pearce and Gretzel, 2012). Consideration around managing the core event experience beyond the media it controls is becoming more important and more challenging, but for event teams, in the MTM co-creation context, it also offers an incredible source of review and renewal through which to continue to lift the experience and focus their offering (Hudson and Hudson, 2013).

6.6.1 Physical Realm

Although there was evidence presented of event fans participating remotely and of their satisfaction around maintaining a connection with the event, it was much more prevalent to find examples of the irreplaceable physicality of '*being there*'. SH (male) encapsulates this experience preference in the following excerpt which highlights one critical way where the on-site event experience could evolve given improvements in connectivity and where potential exists for access to dynamic information:

“You can never replace being there in person at the race buy any type of tech, but as things get more advanced we have the possibility of adding to and enhancing the experience. I have said quite a few times that instant live information along with the live stream would be top of the list for the race days and practice.”

According to Berridge (2014a) the requirement for on-site information does not begin upon arrival and thus development of suitable pre-event insights in digital format clearly alleviates potential problems of ensuring an opportunity to pre-plan and prepare in a more immersive manner. EB (male) shares this perspective in the following comment relating to digital experience preference:

“For me personally (someone who goes to at least 5 road races every season), the essential part is the info supplied pre-event.. It means I can be there on time, get in and around the paddock, pick a good spot to watch and get settled in for the day..”

In relation to facilitating the immersive and explorative motivations of event goers who seek to find new and unique ways to enjoy their event experience, digital offers significant signposting opportunities and as such further potential development and sustainability. This can be achieved through renewing people’s experience by tapping into their will to discover and explore (Morgan, 2008). KMcC (female) presents what physical elements would motivate her to embrace a more digital event experience connection:

“Definitely tend to go towards areas where I know there will either be a speaker close by, and also facilities (food/toilets) are always a plus but would love to go spotting around quieter parts of the course and still be informed about the races.”

According to Nordvall (2014), the physical layout or experience-scape of an event can be enhanced through both better inclusion of design bespoke to facilitating encounter but is also challenged to ensure the authenticity of such encounters. So, what fundamentally must the digital event experience offer in such circumstances and how do event fans seek to connect to their experience digitally? The following section deals with a connection across the realm, time and temporal nature of event experience.

6.6.2 Digital Realm

According to Narbona and Arasa (2016), the digital realm provides the potential of an 'always on' connection between event fans and their experience which includes multiple experience stakeholders in MTM contexts. At its most basic, according to responses from participants in this study, it should offer critical information and insights to allow for pre-planning, post-event review or in-experience insights. These offer to elucidate the potential of better event experience. Examples of this connection and information seeking are evident in the response of KS (female), whose affiliation to the event is strengthened as she uses mobile:

"To keep up to date, particularly on each week for updates as not fortunate enough to be there for it all."

Critically, it is evident from data that an opportunity for deeper and more meaningful engagement exists around better integration of identity, regardless of location, demographics or contexts of use (Lamsfus et al., 2015). One such presentation of a wider acceptance of the multiplicity of event contexts and the awareness of event fans around supporting these needs is presented best by JM (male) who provides some insight around digital connection:

"Whether for folk that can't attend to keep up to date with what's happening or for folk dotted about the course. It's good to have if you're sitting in a hedge with a wireless listening to radio coverage. That's what I usually do with the Isle of Man TT Event. I Have Manx Radio app and TT live timings running together."

Beyond the event enhancements of dynamic information and communication from the event to its fans, there is also the potential for new and more immersive digital experiences, and event fans describe several unique types. Of those proposed specifically for the digital realm, SH (male) shared a preference for deeper insight and learning around event components that are central to the success of the event experience:

"I'd like content about the actual bikes themselves maybe time lapse videos of building a machine, exploded diagrams etc maybe design your own bike/colour scheme could appeal to some younger fans."

Citing Buhalis and Law (2008), Neuhofer et al. (2015a, p.248) posit that “always-on connectivity enables enormous opportunities to enable interactivity and provide personalized, contextualized, and location-based services.”

Connectivity improvements within the overall event experience of this recent period lead to significant potential and desire for integrated experiences of both digital and physical environments through augmented reality. Whether seeping in from other technologies or being enabled by event apps, it is increasing in impact and creating more opportunities for event fans to create experience value in ever more creative ways.

6.6.3 Integrated Realm

According to Neuhofer et al. (2015a), the integrated realm is one which, to some degree, is imposing its offer on the event experience through the consumption habits of the digital society. It is also a significant area which as connectivity and technology further develop, will undoubtedly present deeper and more immersive experience opportunities, often created and consumed independently of the event environment itself. Integration of technologies and connectivity are somewhat easier in the smart destination context, but from a strategic perspective, it is critical to listen to the experience encounters and outcomes being sought by event fans (Narbona and Arasa, 2016).

One such example of where stakeholders often miss this potentiality is presented by respondent CB (male), who clearly seeks a more personalised experience through a ‘tool’ from which to empower his event experience:

“To be honest the app has never really provided anything that couldn't have been got elsewhere. I have used it to check on schedule for weeks' events other than race fixtures. It's an app I would like to have as a tool on race day and as JM or someone brought into the discussion, integrated live commentary, track or radio would be great for when you are out of areas covered by public address system.”

These grey areas around the event experience, where a connection through event communications are stretched, and experiences are affected, is clearly an area where spectator preference for the development of either

better physical solutions or integrating digital ones must be understood within the context of what is affordable, achievable and adequate.

SH (male) provides some perspective about the challenge they perceive with integration but also provide creative means to facilitate development:

“It’s a tough one to call about pricing, one option could be drop the programme by a few quid and then that enables the app to be chargeable by roughly the same amount? programme sales could increase, and the app will be making money as well. It’s possible the app can enhance the programme by having video interviews with teams and riders as well as printed one. Competitions also would improve e.g. enter a code printed in the programme or general entry via app then winners could be notified before the end of racing on the Saturday.”

This quote links into Hudson and Hudson (2013, p.206) who found that “via technology, consumers have more ways to interact with companies and brands, and importantly, have the means for initiating these interactions that did not exist a decade ago.”

Undoubtedly, the challenge for event management in an ever-evolving digital landscape is to be strategic but open, be future focused but not at the behest of current event experiences, where the symbolic, nostalgic and near ritualistic practice of event immersion are critical to satisfaction (Morgan, 2008). Harnessing opportunities presented through the digital realm to enhance and amplify the experience at different stages remains a strategic opportunity. Andersson and Ambrecht (2014, p.259), citing Getz (2012), posit that “after the event, there is the “reversion” to normal life, which may include feelings of accomplishment, transformation and renewal.” Review and renewal are critical parts in the process of planning and implementing event experiences and as such, within a framework of development, could offer important touch points for the emergence of cohesive and coordinated experience value creation (Rihova et al., 2015; Rihova et al., 2018).

6.6.4 Future Impacts

What is evident throughout the discourse is the subjective nature of the event experience phenomenon. There are significant opportunities for event managers to harness digital’s capacity to support an ‘intersubjectivity’ of

experience (Ziakas and Boukas, 2014). Regardless of the shared resources and the focus on the elements under examination in this study, people still experience things in their unique ways, and their feelings, opinions and viewpoints are wide ranging and of varying expectancy. This links to the work of Pettersson and Getz (2009) who argue that experiences cannot be designed fully across the social, individual, personal, psychological and cultural aspects of experience impacted by involvement. Interestingly, the discussions using Facebook (FB) secret groups allowed people to diverge in their beliefs and viewpoints in a way which did not stymie their overall contribution. For the negative impact of being unable to 'study' participants in person and to explore the unsaid as well as the opinion voiced, online focus groups through FB do offer and enable more contribution and critically, less focus on dominant opinions. Those dominant characteristics and dialogues are very much still in position but due to the nature of less-linear conversation (i.e. participants do not have to wait 'their turn' to contribute) - the data has a richness and diversity of opinion that may be less easy to capture from focus groups 'in situ'.

The quality and simplicity of some of the event experience ideas for innovation provided a rich granularity (see appendix 20). Useful in reaching into the subjective nature of experience to pull out the critical factors of which spectators are challenged by or feel are lacking in usefulness and suitability. Additionally - there is a wave of social technology through which the event is being experienced that requires further strategic understanding; at the very least to allow event teams to coordinate and communicate better, even where the budget is limited (Hudson and Hudson, 2013). The opportunities presented by the ever-evolving sets of 'big data' will at some point require a paradigmatic shift in the skill base or, at the very least, the strategic thought applied to elements of how events are experienced digitally (Buhalis and Amaranggana, 2015).

One such opportunity where ingenuity emerged and the many to many (MTM) co-creation potential in the event context was highlighted was in the suggestion presented by JH (male) upon minimising disruption around the event. He suggested trialling new features to dissipate congestion and reduce impact, whilst addressing fundamental event logistical issues.

“A nice feature that could be added would be an option for car share in which anyone travelling to the event could offer a seat or 2, one very nice feature would be a traffic camera so when traveling you can see where to avoid with backed up traffic if you want to reach your spot before road closures.”

Concurring with the findings of Brown and Hutton (2013), apart from the pre-event opportunities and potential for impact, there is clearly an appetite and interest in a more connected and immersive experience around the event goers' informational needs. By supporting a platform which can provide the interactions necessary for MTM co-creation to be facilitated, event management and stakeholders can support new value streams driven by fans and further support value co-creation within the event ecosystem. This can then offer better insights from big data to event planners in terms of experience delivery (Gretzel et al., 2015a). Demand exists for live and dynamic information and infrastructure through the internet of things (IoT), artificial intelligence (AI) and wearable technologies. Society is ever closer to creating omnipotence of insights, which can be personalised and tailored to event goers' preferences through connected and smart event experiences (Buhalis and Amaranggana, 2013; Buhalis and Leung, 2018). OG (male) demonstrates his preference for such insights clearly in this extract:

“Everything about what's happening at each point of the race, i.e. where the bikers are on the map and also any incidents and accidents that occur. Also when the bikes set off from the stand so we know when to expect them passing us.”

EB (male) takes this immersive desire to a new level with his realisation of the potential of these connected technologies in the road racing context:

“Yeah loads of riders have on board cameras. I'm sure it could be linked to those, that would be really good to watch or linked to the big screens they set up.. On-board live while it happens wow lol.”

As stated at the outset of this section, the subjective nature of the event experience is what makes experience design more complex and challenging to manage (Pettersson and Getz 2009; Ziakas and Boukas, 2014). In this final section we explore a conceptual framework through which event experiences can be better understood and around which, using futurist processes, event teams can begin to unlock the potential of current

experience and plan for the impacts of the IoT on the digital event experience. Concurring with Buonincontri and Micera (2016, p.312), this provides the platform for exploring how “experience co-creation may be implemented using the smart technological components” such as those outlined above.

6.7 Digital Event Experience Co-Creation – A Conceptual Framework

To reiterate the overarching question of this thesis - “*are event experiences evolving in an era driven by ubiquitous connectivity, personalised experience and through smart and social technologies?*”; This research has produced significant evidence of a more enhanced experience being sought. This is alongside a clear indication of existent ‘smartness’ capacity (Buhalis et al., 2015) throughout this sample of fans, particularly in their openness to integrated communications and participating in experience co-creation opportunities that enhance the event as a whole. The evidence highlights that this opportunity is facilitated by mobile technology and ICTs through MTM propensities, right across the multiphasic event journey.

This fundamental clarity through exploring the subjectivity and nature of event fans’ app and digital preferences through Interpretative Phenomenological Analysis (IPA), has created new knowledge in the framing of event experience co-creation and avenues for its enhancement (Neuhofer et al., 2016b). Through applying this method, it has been possible to explore the patterns of personalisation sought by people through process and located in places. It has led to the re-conceptualising of the earlier conceptual framework (Figure 6.1) with the inclusion of the 7 Rs’ as categorised during an earlier phase of IPA. The following sections will clarify these elements and their linkages as a means of re-constituting the event experience and as a lens for exploring co-creation in practice.

6.7.1 An overview of the Model

The experience of exploring the event’s digital dimension was a very positive one - indeed, it would be fair from analysis to say that online co-creation offers a new level for fans to ‘feel listened to’ and for exploring ideas

with a 'passionate' community (see section 6.7.5 on renewal). This experience increased satisfaction for participants generally and was not unique to event veterans or casual fans. There is no claim that this appeal is universal across sports and fan contexts (Hutchins, 2016) but in relation to motorsports or data heavy sports with leaderboards and such, concurring with Luxford and Dickinson (2015, p.37), it is certainly "one of the challenges faced by events managers... the increasing expectations of the attendees as their everyday lived experiences involve sophisticated engagement with technological devices. Given this reality, the importance of technology supporting and enhancing co-creation is ever more important."

The quality and simplicity of some of the event experience ideas for innovation were detailed and reached into the subjective nature of experience to pull out the critical factors of which spectators are challenged by or feel are lacking in usefulness and suitability. This supports the position of Robertson and Yeoman (2015, p.581) who posit innovation in what they term the 'technology-play paradigm', which will unlock "specific moments, offering incentives, overlaying of experiences, and directing experience possibilities."

This wave of social technology through which the event is being experienced requires strategic understanding - at the very least to allow event teams to coordinate and communicate better, even where budget is limited (Hudson et al., 2015). The opportunities presented by the ever-evolving sets of 'big data' will at some point require a paradigmatic shift in the skill base or, at the very least, the strategic thought applied to elements of how events are experienced digitally (Neuhofer et al., 2015a).

Participants use a wide range of data sources, physical and digital but most remarkable is the reconstitution of various platforms through mobile to provide the most personalised 'self-directed' service. The opportunities to 'crowdsource' resources and co-create experiences through digital signposting is one area of sustainable development and innovation for better experience outcomes and an avenue of opportunity for renewal across realms (Gyimóthy and Larson, 2015).

The group process (through secret groups on FB) hints at an opportunity for events and other seasonal businesses to engage in real-time communications, at different stages of the event experience journey, to increase satisfaction or at the very least improve understanding (Buonincontri and Micera, 2016). There was a strong link to the sense of nostalgia as a key motivator of the 'stickability' of this event with participants, as a ritual of their lives and family experience.

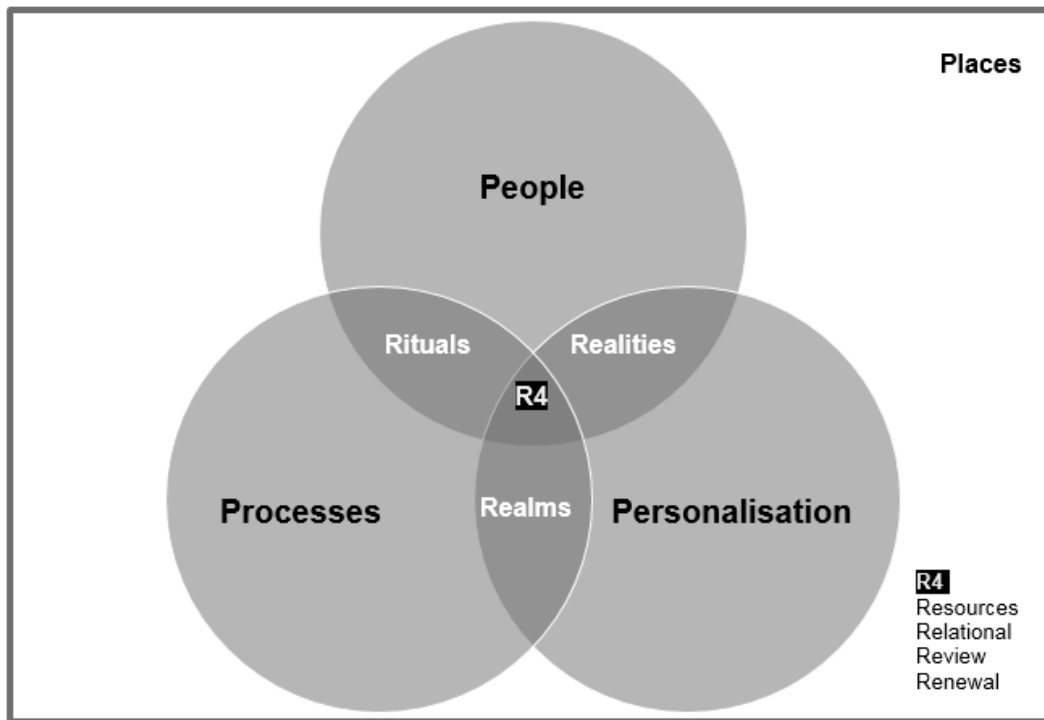
Thus, and through the process of IPA, arrival at an enhanced conceptual model is reached, which relates the digital event experience in a more accessible and memorable way. It does so by increasing understanding around what elements are critical to the formation of the event experience in a digitally integrated 'experience-scape' (Benckendorff and Pearce, 2012). To recap, the original model (see section 6.2.1) was represented by the overlapping of 4Ps as follows:

- People - Relational Pursuit of Experience Value;
- Personalisation - the subjective pursuit of experience value;
- Processes - and the Creation or Destruction of Experience Value;
- Places - the locations of experience value.

The new model in figure 6.3 titled "Synthesis of Digital Event Experience: Themes and Categories", reflects critical touch-points and experience levers which have been identified through IPA. These may offer deeper understanding of the ever-evolving process of co-creation of experience value in and across the digital event experience. Figure 6.3 provides a visual representation of these interlocking elements through the 4 P's and the 7 R's of digital event 'experiencing'.

People, processes, personalisation and places are integrated and interlocked across spatial and temporal boundaries. The interlocking elements offer a realistic lens through which to further analyse the digital experience from the perspectives of the event and consumer, a holistic reversible frame of reference in exploring experience value creation, destruction and renewal (Bustard et al. 2018). The 7 Rs' are woven into and presented across linked aspects, with a focus on four central premises which are more critical to co-creation of value in the digital event experience.

Figure 6-3 MTM Co-creation and the Digital Event Experience: Themes and Categories



6.7.2 Rituals and the Digital Event Experience

The study's data highlighted event rituals that impact on memorability and are nostalgic in nature such as the camaraderie of preparing, coming together and travelling to the event en-masse. As a perennial event, there are also rituals of connecting and re-connecting, whether through the road racing community or within family and friends' networks (Richards, 2017).

Concurring with Szokolczai (2009), rituals have their roots of study in social and cultural anthropology and are a significant factor regarding experience and meaning for participants of events, across the spectrum and range of event types. Their impact on affective, conative, and cognitive experiential outcomes of fans is an area which evidently offers further opportunities to be explored and contextualised regarding review. Also, with significance to further engagement via digital event components (van Winkle et al., 2016).

Collins (2004) argues that events are a form of ritual and as such a means of generating 'emotional energy' for participants. Richards (2017) argues

that the event experience is engaging on the affective realm for viewers of the event spectacle, often dependent on the proximity to the key event ritual. Arnould and Price (1993) had highlighted the importance of managing expectations around delivering satisfaction through affect, narrative and ritual. The data gathered in this research would support that perspective where many event fans seek vantage on or near the track in a physical sense but also seek the latest news from their Twitter feeds by targeting 'in the know' users or sources. These sources, who are also proximal to the key event ritual, are more accessible via digital means (Bustard et al., 2018).

6.7.3 Realms of the Digital Event Experience

Once again, linking to the perspective of Getz (2012), relating the core phenomenon and critical to the meaning ascribed to an event experience, it is important to assess how individuals and groups are exploring meaning being derived from an event across a myriad of touch-points (with mind of the cognitive, conative, and affective realms of that experience).

Data generated in this study highlighted that the realms of event experience were often underpinned by personalisation choices. As the study was focused on unpacking the digital event experience as technology and society co-evolve, findings highlighted varying ways in which people engage through the digital realm. These ranged from periods where full immersion in digital experience enhancement was sought through to periods where a disconnection from digital was sought to prevent a negative experience outcome. Categories where event experience were impacted by digital integration that was highlighted through IPA included digital, physical and integrated realms. These realms could be enhanced or detracted through digital means dependent on the personalisation sought and also the context of use.

As Neuhofer et al. (2015c) suggest, there is certainly great scope for further personalisation of experience through the digital context. As social media and ICTs continue to provide the most interactive and personalised experiences, in a cost-effective manner (Hudson and Hudson, 2013; Buhalis and Foerste, 2015; Gretzel et al., 2015a). The blending of digital

and physical is a particularly expansive area regarding photo and video sharing and thus contextually blends the physical and digital for further engagement and entertainment (Wang et al., 2014b). If a platform such as Snapchat is taken as an example, one can see where 'stories' are created and shared across and within contexts; with friends or other event fans and in such a way that often the content is co-created (Buhalis and Foerste, 2015). These processes of personalisation are overlapping significantly with event experiences and as such, if understood and planned for, can create quality engagement and experience enhancement (Bolan, 2014). There are some challenges, which the following comment from JM (male) brings to light. It is one of the critical fears of unfiltered content sharing which could cause a negative experience outcome and is impacting many digital channels and content strategies (Hudson and Hudson, 2013).

"You mentioned pictures in your reply. I hadn't considered that. Sharing live pics from around the course would be good. As long as they weren't grim. I suppose that's where administrators would come in to play."

These opportunities and challenges (realities) require strategic oversight to mitigate some risk without losing the opportunity to further develop the event experience (Masterman, 2014). Where processes and personalisation overlap, is where the various experiences that people have and seek come to light and as such, in a digital sense, consideration, care and thought are required to ensure a more positive outcome for those who are digitally engaging (Neuhofer et al., 2017).

6.7.4 Realities of the Digital Event Experience

As evidenced in the study's data, through the multiplicity of experience outcomes sought, people experience their reality in differing ways and with differing desires (Mannell and Iso-Ahola, 1987; Uriely, 2005; Hudson et al., 2015). In examining these realities, consideration is given to the overlap of people and personalisation, particularly in a digital context, where there is evidence of very different experience outcomes being sought (Shipway et al., 2016).

Categorisation through IPA found that realities were biased by the expectations of experience which participants brought to the event. This is particularly so where fans engage with an event's ICTs as they are carrying an expectancy from other use contexts. These contexts are made up of both positive and negative outcomes of previous experience encounters.

Although evidence was gathered purely from a qualitative perspective, innovative thought, ideas and iterations of suggested digital event experience outcomes, were not particularly gender, age or background specific. This is not such a surprise given innovation's tendency to emerge from attitudinal roots and is often more about being inquisitive and engaged (Pearce and Gretzel, 2012). The types of innovation through suggested iterations, or at times new experience elements, were rich with both operand and operant resources and were perceived to support event experience. CB's satisfaction with the app post-event measured low in the Likert type survey question at only 2 out of 5. In the same survey, he also had this to say about the app:

"It serves no purpose on the day. I would happily pay for the app instead of buying a programme to get each grid and rider number on my device. furthermore, it should provide real time lap times and positions and maybe a facility where you can punch in rider positions as they go by... this could also be done live. - the event commentary could be streamed on the app for when you are out of speaker range."

Taking CB as an initial example of where online engagement and involvement in experience design and experience co-creation can have a profound positive effect, further analysis of his journey and renewal are related below. Of course, this is a temporary state of being and in other circumstances or around differing contexts, a state which could have remained negative or worsened in impact (Neuhofer, 2017). Whilst this is a distinct possibility, this case is used further below to highlight a key finding of this study about experiencing renewal through co-creation.

6.7.5 Renewal of the Event Experience

It was most interesting to explore the potential of online co-creation through social media to reconnect and re-invigorate people like CB. There is evident

potential. Indeed, this is most clearly related through the example co-created by CB and a fellow participant relating to the question of the most important factor of their digital event experience. Using visuals, dialogue and constructing a picture from across a range of perspectives, JM (male) and CB (male) provided some of the most critical evidence as to how impactful online co-creation can be (Hudson et al., 2015). An element of this dialogue is shared in appendix 21 and is rich and useful in its flow of co-creation. Although the outcome of his experience of co-creation within the event is not straightforward to measure in qualitative terms, one would take the following quote as an indication of his personal 'sense-making' of exploring the event experience:

"what a unique experience which I thoroughly enjoyed being part of - thanks for involving me and best thoughts to you for wherever these findings take you regarding the final product."

The interesting development of fan to fan co-creation in this example provides potential as well as pitfalls (Gyimóthy and Larson, 2015). The potential is obvious regarding having produced an intricate but incredibly rich co-created (appendix 20) innovative reconstitution of current sensors and IoT elements linked to the event through ICTs to offer a new digital enhancement. Thus, utilising resources which are already integrated to some degree (Buhalis and Amaranggana, 2015). There are many pitfalls, for example, having encouraged co-creation, event teams not following it up and doing nothing at all and not feeding back, thus damaging fan engagement. Even more damaging, doing something affecting the digital experience but not to a worthy technical standard (Neuhofer et al., 2016a).

This is where a framework of innovation engagement becomes crucial to satisfactory outcomes and for event experiences to be able to develop and maintain a strategic focus on ideas to enhance experience design as a catalyst for deepening fan engagement and increasing fan loyalty (Tussyadiah, 2017a).

6.7.6 Reviewing the Event Experience

As was eluded in chapter 3, reviewing of the event experience as a means of increasing satisfaction through memorability is an opportunity (Robertson and Yeoman, 2015). As was outlined in relation to CB, the experience of 'reviewing' the event's digital dimension was of critical experience value, where participants '*felt listened to*'. Findings were clear in that assessing the preferred outcomes of event experience with a 'passionate' community increased satisfaction for participants generally and was not unique to CB.

Review is a foundational aspect of this process, where time is provided to discover core issues, opportunities and challenges presented by event fans and as such, is a staging post to 'renewal' – whether of the event or of participant experience (Morgan, 2008). Review assures that the central premise of improving the event experience is in focus and that the various and myriad relationships across the super-ordinate themes of people, processes, personalisation and places are examined holistically by giving voice to individual contexts. This is why the 4Rs of review, renewal, resources and relational are at the core of the updated model. They are integral elements in the emerging event experience but also are foundational in positive event experiences in a more general sense, providing for critical experience outcomes to be met.

As Quinn (2013) highlights, events must renew their offering constantly. Indeed, not only is such innovation sought one dimensionally but can also include product, service, organisation and even participant innovation (Carlsen et al., 2010). Of critical importance to this renewal is the success of review which is reliant on the affordance of time and resources to ensure familiarity with the phases, contexts and outcomes sought is provided for. A framework of engagement and an understanding of what is achievable and what is not (budgetary, timeframe, resources etc.) is also of fundamental importance to ensure adequate insights can be provided to a discerning event fan base. Where possible, a means of continuing the review dialogue post-event would also ensure that a feedback loop was existent to mitigate the risks of someone (like DB in the following example) feeling disconnected from the event (Neuhofer, 2017).

*“They are scared of a change I would hear stuff in the meeting with the club some of it is sh*t they just drive people away.”*

It is noteworthy to highlight that other participants were somewhat at odds with DB on his viewpoint and although not tacitly stated there were frustrations with this member’s general negativity. This leads on to our exploration of the ‘relational’ elements of the digital event experience and how time and thought about such issues can be mitigated against.

Review is an activity which happens as part of the experience encounter and is facilitated more easily through ICT by the increased content, and personal footprint event fans leave at different times and in varying contexts. Data in this study has revealed the growing opportunities to develop the event offering through that review, and thus it becomes a central focus through the updated model.

6.7.7 Relational elements of the Digital Event Experience

According to Hudson and Hudson (2013), core to the success of an event experience is the service encounter itself, often measured through the various touch-points of service delivery and support provided. It is clear from the participants of these online focus groups that engaging with the event and sharing views and opinions is a positive catalyst for connection. The challenge as always is maintaining connection and seeking to support a positive and motivating dynamic beyond the initial interaction (Tomkins and Eatough, 2010).

This is one area where the event teams under study have been overwhelmed by the scale of expectation of connection and commitment which is resultant through social media and ICTs. A major challenge of managing this complicated network of individuals is revealed in the comment of AR and SC (males) relating to event communications:

AR - “As previously said, an event that’s well run and planned with communication between organisers and fans, if that’s through the app or whatever then that’s important to me. Being there in person is the thrill of it all, live streaming will and has killed off some spectators as they just sit on their sofa’s instead of supporting the event.”

SC – *“Echoing the comments above really. Efficient communication between organisers and fans is key for me both before and during the event.*

P.s If you also could make the weather the same as it was this year that'd be great! ;-)”

A communications strategy is one clear necessity in facilitating better outcomes and understanding of event fans and their various event expectations (Quinn, 2013). Do communications aim to celebrate and connect to the ‘being there’ essence through fans networks, content and accounts at the risk of some negative outcomes due to weather, scheduling delays or poor performances, or do they focus solely on ‘pushing’ event content and not give voice to any negativity? These are challenges which event teams must answer as they are fundamental to the relational impact of the overall experience – a form of cultural presentation (Morgan, 2008).

6.7.8 Resourcing the Digital Event Experience

Finally, resourcing of the digital event experience is fundamental to the overall shaping and experience dimensions as it is through objective assessment of the resource-based view that the practicalities and realities of an experience outcome can be understood (Getz and Page, 2016). Evidence of connectivity challenges was abundant throughout the data collected, and the impact of this operand resource on the digital event experience of present ICTs and social media cannot be understated (Buhalis and Foerste, 2015; Luxford and Dickinson, 2015). That said, comparatively to findings from the projective reflective analysis in chapter 5, of connectivity and sociality within the app experience, wider improvements of network performance and improved technology are creating an expectancy of availability and connection at events (Gretzel et al., 2015a). There are still big differences in performance across network providers which is something critical to the event app experience as currently designed and thus a key operand resource to mitigate for in exploring the

delivery of the multiphasic event experience. RC highlights his more positive recent experience of coverage in this excerpt:

“I agree – the app is at a good base level and I found it much improved in the second year. had no problems with connection as there is a good 4g signal which I believe is boosted when big events are on, I had no problems with FB live during races.”

Evidently, this is not the case across networks with CV (female) relates:

“As for network signal to text people it becomes very difficult to contact people due to the vast amount attending the event and 3G can be quite hard to connect to.”

That said, there is significant evidence to suggest that the ubiquitous connectivity promised by many providers is closer to reality than previously. Apart from FB live performing well in the earlier example provided by MH (male), he also demonstrates the potential of an ever more engaged and dynamic digitally enhanced event experience with the following comment:

“I have no issues with mobile phone connectivity. I was able to stream to periscope at the event last year.”

As Akaka and Vargo (2014) highlight, connecting and contributing as co-creation of value in the MTM context are two areas where digital event experiences are being improved upon. People as an operant resource, their devices and content ads operand and through their citizen journalism and sharing of entertaining and participatory content, are much more connected and empowered in creating and co-creating elements of the digital event experience. The following example from KS (female) when relating her approval of the online secret group format highlights the significant opportunity social media offers in relation to digital engagement and co-creation:

“Yes, was great for me as was able to pick up when had the time to do so. A great way to get everyone's thoughts as focus groups don't always lend the opportunity to answer.”

Threads, chatrooms, online focus groups and other forms of digitally mediated co-creation offer significant advantages where they can be suitably harnessed. If resources align with intrinsic, extrinsic rewards being met for participants, there are clearly more opportunities to gather the ‘pure gold’ uncovered by participants in their co-creation practice earlier.

The IPA uncovered several key technologies and stakeholders already adding value or with significant potential to adding value in MTM Contexts through the digital event experience. These build on those related in chapter five (table 5.3). Table 6.1 below presents key examples from the data and relates these to the MTM context of value co-creation at events.

Table 6-1 Technology and Stakeholder Leveraging MTM in the Event Context

Element	Function	MTM Co-creation Opportunity
Technology: Social Media	Empowering event fans to connect, engage, identify and integrate around the event	Value Co-creation Through Real-time Fan Driven Content, Knowledge Personal Content and Network Insights
<i>"At the minute I just use other Facebook pages, there are a few really clued in guys on twitter and a other sites like the TT site, Motorcycle News, Road Racing Ireland..."</i>		
Smartphones and Sensors	Communication, Location and Context Awareness within Experience-scape	Event Nodes – Providing Context Relevant Data and Sharing for Service Development
<i>"The live timings for TT via the app and their website are fantastic and are measured by sector. There must be a way of communicating the info at each of the speed traps and via the transponders on the bikes to make this achievable..."</i>		
Event Specific Platforms e.g. Timekeeping	Supporting Event Delivery in Competitive and Creative Contexts	Integrated Experience – Leveraging Engagement as well as Gamification Potential through Interactive Fan Based Challenges
<i>"During qualifying and race days it would to be updates on lap times and race results. In the lead up to the event, it would be news and information on riders and teams and after the event, race reports with photographs and video footage "</i>		
Destination Platforms	Offer Accomms, Experience and Regional Context and Drive Engagement	Interoperable Platform Supporting Better Engagement and Personalisation with Event Location and Context
<i>"For local information I use causeway coast and glens website just or google information."</i>		
Utility Platforms	Provide Context Specific Support e.g. Weather, Dating Search, Maps, Taxi	As above – Integration into Localised and Context Aware Event Experience Network
<i>"A good weather map and rainfall radar would be a plus within the app, it's well known that due to the size of the course it can be dry in one area but raining in another."</i>		

Stakeholder: Event Fans / Participants	Deliver Value Through Co-creation Roles – from Experience Co-creation, co-production to Co-ideation/Co-evaluation	Openness to Integrating Personal Technology, Network Insights, and Operant capability to Drive Value Co-creation
<i>“I feel the app is great to save looking on endless sites for results, weather etc and can all be done in the power of the mobile. Folk being able to share their images from the races is quite interesting too.”</i>		
Event Management	Deliver Value Through Quality Event Practice.	Openness to Integrating Technology, Platforms, Fans and Stakeholders to drive Value Co-creation
<i>“I understand that an app is downloaded before hand and I'm not sure if there is a way to make it live, like Facebook or social media. In the instance that there's an accident on the track and you're at the other end or there's a delay, that it could come on a live newsfeed or something to keep everyone updated”</i>		
Local Hospitality, Event Services and Retailers	Service and Experience Provision Around Event Experience, Supporting Extraordinary Encounter	Integrated Offers, Experiences and Content Relevant to Geography, Context and Personalisation
<i>“As a business owner in the town centre of Portrush the road opening times are very important to me ,as when the races are on the town is deserted,if the roads open early,as has happened many times in recent years I can get caught out staff wise”</i>		
Policing and Road Services	Support Roads Network and Ensure Traffic Management, Safety and Flow	Provide Opportunities to Improve Flow through Sharing Data into the Event Experience
<i>“App wise the most important thing for me is being able to find info when I need it, revised road closures or revisions to schedules etc.”</i>		
Riders and Teams	Focus on Delivering Racing and Core Event Experience	Leverage Access to Co-Promote the Event Experience and Co-create Value Through Unique Content and Insights
<i>“Twitter can really help as there can be really up to date info from the pits on there. I think news on William Dunlop's team change last year was on twitter and Facebook before the media got hold of it.”</i>		

Will the march of Artificial Intelligence (AI) and the inclusion of chatbots to mediate these communications (Tussyadiah et al., 2018; Buhalis and Leung, 2018) in MTM contexts continue to speed up co-creation and experience design opportunities? This is the subject which will be assessed in a later chapter which relates to the emerging ‘smart event experience’ (Bustard et al., 2017). The next chapter focuses on providing a brief summary of the evaluative research phase by presenting the quantitative assessment of the 2-year repeat cross-sectional study against the backdrop of app data

collected over a 3-year period. Building on this, exploration of the emergent themes based on the evidence gathered in each stage of research is reviewed to develop a holistic engagement framework leveraging many to many co-creation through which event practitioners and academics can seek to partner in delivering smart event experiences focused on engagement, personalisation and real-time integration through ICTs. The aim of which is toward producing more memorable, safe and engaged outcomes for event participants.

6.8 Chapter Summary

This chapter has delivered a thorough and in-depth presentation of the digital event experience as explored through IPA (Tomkins and Eatough, 2010). The importance of discovering that event experiences are impacted across the interdependent and influential areas of people, processes and personalisation, all within the places of experience, offers a useful conceptual framework through which to further understand the opportunities presented for experience enhancement. Where the subjectivity of the consumer journey can intertwine with the needs being sought (Bustard et al. 2018). The rituals, realms and realities of experience are critical dimensions to be better understood and exploited to support the various relational opportunities at play (Rihova et al. 2015). Renewal is a critical driver of event experience engagement and review is a further opportunity for deepening the benefits of that experience or beginning a new journey (Morgan, 2008). Leveraging the resources (operant/operand) existent in the event ecosystem is an area which has been highlighted as having ever more potential in this digital age (Gretzel et al., 2015b). The following chapter sets out to provide a review of the findings and integrates data from semi-structured interviews with stakeholders and academics to develop a holistic engagement framework leveraging many to many co-creation.

Chapter 7 **THE EMERGING SMART EVENT EXPERIENCE – A TECHNOLOGY ENABLED MANY TO MANY CO-CREATION.**

Through this chapter, the findings of the thesis are drawn together and considered from both participant and stakeholder viewpoints in line with meeting the final objective of this thesis, which is focused on the emerging event experience. Building on the evidence base of the previous findings chapters and integrating findings from the semi-structured interviews with stakeholders, event professionals and specialist academics, the objective is to provide a holistic model of engagement to improve experience outcomes for event spectators in digital contexts. Reflection is also provided relating the findings and their contribution in relation to the wider context of Service Marketing, particularly through the lens of SD Logic.

The first part of the chapter presents the initial theoretical contribution of this thesis to the discourse on co-creation from the many to many (MTM) perspective through presentation of co-creation roles in a dynamic and real-time ICT embedded environment. The second contribution is the conceptualisation of the multiphasic digital event experience and integrates elements impacting the event experience, acting as an important means of framing the evolving event experience more holistically. The final contribution is in relating the MOBILE framework for digital experience analysis which provides an important and empirically grounded element to co-creation contextualisation offering deeper insights and potentially greater transferability to events and other service marketing contexts with such scale and scope.

7.1 MTM Co-creation's Role in the Emergent Experience

This thesis has explored the notion of MTM value co-creation in the context of the digital event experience at large events. Chapter five identified technology use and non-use factors which contribute to both co-creation and co-destruction of the digital event experience and grounded these in consumer experiences of an event app. Beyond these potential outcomes, actors and actants, were also further acknowledged as part of the MTM co-

creation network perspective. In addition, a range of multi-stakeholders were exposed in analysis of app use in the context of a large-scale event leveraging location services, personalisation information, push notifications and social media (see full stakeholder list appendix 23). This knowledge supports the development of a more holistic engagement framework which is later presented.

In chapter six of this study, findings are clear that the practice of co-creation in the case of the NW200 event app has had a positive impact on those participating in co-creation practice. This practice of MTM co-creation through a network based, multi-stakeholder approach leveraging technology offers an interesting new contribution to the SD Logic perspective which will be further unpacked in the coming chapter. The imperative to present and support the impact of MTM co-creation as an approach is now highlighted as part of the overall MMPR design, by briefly presenting the significance of the embedded quantitative element of the study.

The following table (7.1) highlights the hypotheses tested through the 2 year repeat cross-sectional study of event app experience measuring satisfaction, enhanced experience, positive association and willingness to pay. These were measured across both the event apps in year 1 and again in year 2 for two events with a total sample of 549 participating in the survey. A co-creation intervention through online focus groups was used to develop the app between year 1 and 2 for the NW200 event whereas user feedback from surveys was used to update the Causeway Coast Golf app over the same period.

Table 7-1 Results of 2 Year Repeat Cross Sectional Study

Hypotheses	Event 1	Event 2
<i>H1: There will be significant differences between year 1 and year 2 in relation to satisfaction</i>	(χ^2 (1, n 349) = 19.4, p = .001; Cramer's V = .24)	Not Significant
<i>H2: There will be differences between year 1 and year 2 in relation to enhanced experience</i>	(χ^2 (1, n 349) = 5.4, p = .02; phi = .13)	Not Significant
<i>H3: There will be differences between year 1 and year 2 in relation to description of app</i>	(χ^2 (1, n 349) = 4.2, p = .04; phi = .12)	Not Significant
<i>H4: There will be differences between year 1 and year 2 in willingness to pay for the event app</i>	(χ^2 (1, n 349) = 3.8, p = .05; phi = .11)	Not Significant

The complete set of findings and analysis of this 2 year repeat cross sectional study can be evaluated in Appendix (23) and provides information on several more hypotheses tested as well as other useful event app data and analysis related to this event technology deployment.

This increase in experience satisfaction and enhancement across several measures was evidence that with significance in this particular instance – co-creation improves experience outcomes (Vargo and Lusch, 2004; Neuhofer et al., 2016b). The online focus groups conducted through an ICT (Facebook) provided an appropriate space post-event to allow several roles of co-creation, additional to the expected co-evaluation activity to be successfully facilitated (Agrawal and Rahman, 2015).

The quantitative measures of significance earlier highlighted is evidence of value impacting outcomes for the wider group of event app users. In this context of MTM co-creation, which could be posited as a delayed outcome (wider fans), there is clearly also a real-time benefit for many of those co-creating within the group. This distinction is important given that approximately five months past from the completion of the online focus groups until the app was used in its updated form post co-evaluation and co-ideation. Below are some examples of more immediate experience value being created through the process of engaging around the challenge of co-evaluating the event app experience which fits with motivations

posited by Zwass (2010) including benefits such as cognitive, personal integrative social integrative and hedonic.

Claire _ FemaleG2: "Hi, I thought it was a good experience. Definitely better than the likes of a survey monkey, as it allowed you to check what we were meaning and get clarity. And also for us to know that you picked up what we were saying the way we meant it. Looking forward to the new app for 2017 and onwards"

Rod_MaleG1 "Thanks for the chance to have my say, good luck with future updates, development of app."

The commitment was significant, and hence it was deemed necessary to provide the reward of a paddock pass for participation in all eight questions and engagement. Evaluation of each participant's final sign off message shows that all but 1 participant who completed the process was positive about the experience. The individual case had history with the event and although engaged in the process, seemed to find it difficult to be positive about the event in general. This concurs with the findings of Zwass (2010) who highlight the importance of incentive within the process for performers as a motivating factor. A combination of intrinsic and extrinsic reward is evident in these instances. Next, by focusing on the roles adopted in the process of co-creation in this MTM context, opportunities for engagement are considered for the NW200 event app.

7.1.2 Co-creation Roles and Experience Outputs

As was highlighted in the literature review and chapter five, several roles of co-creation are existent which adapt to MTM contexts, particularly driven through technology adoptions and leveraged through ICTs. The focus groups were designed to provide participants with the opportunity (post-event) to feed into the process of app experience enhancement, primarily as co-evaluators (Agrawal and Rahman, 2015). As was noted in chapter five, additional roles were adopted by different people at different stages of the focus groups. Several of these roles are unpacked below as a means of highlighting the potential to assess as well as design MTM co-creation opportunities that are truly experience enhancing for the event, its

processes and the sought outcomes of event fans (Inversini and Williams, 2017).

The main roles adopted by fans other than co-evaluator, were those of co-consumers of value as well as co-ideators, co-innovators and co-designers. In considering each of these roles and their impact in terms of real-time, and focusing on the app development context studied, it is evident that there is a delay in relation to value creation for the wider event app experience (time required to implement updated experience regarding design, coding, integration and testing). The impact of value creation on participants in such MTM contexts, although not directly measured, can be evidenced regarding the exit statements of participants from the experience. These provided positive perspectives of '*being heard*' and feeling valued as voices of experience development – leveraging the impact of social, communal and belonging factors or interactionist perspectives (Zwass, 2010). This is a real-time value created as co-evaluators through participation, but other value is delayed until ideas and innovations are further considered, developed, tested and implemented (Tussyadiah, 2017a).

In assisting practitioners and academics in exploring co-creation in the various contexts and roles of co-creating the digital event experience, it is useful to visualise co-creation in terms of real-time and delayed value impacts for the event population as a whole. As well as 'where', across event phases, that impact will be most significant (Neuhofer, 2013c).

7.1.3 Co-Creating the Emergent Experience

We continue with a focus on the challenges and opportunities of enhancing the emergent experience. The 'on-site' experience is mooted to have the most potential to impact, but this holds to be a challenge, particularly given that it is most likely to have a vulnerability to ICT or infrastructural weakness. This was evidenced through IPA and highlighted earlier through projective reflective analysis also. This is a significant challenge as eluded to in the revised DEEDD framework (figure 5.9) which highlights both co-creation and co-destruction of experience elements (Bustard et al., 2017). Although co-creation through ICTs offer great potential, issues remain in how best to

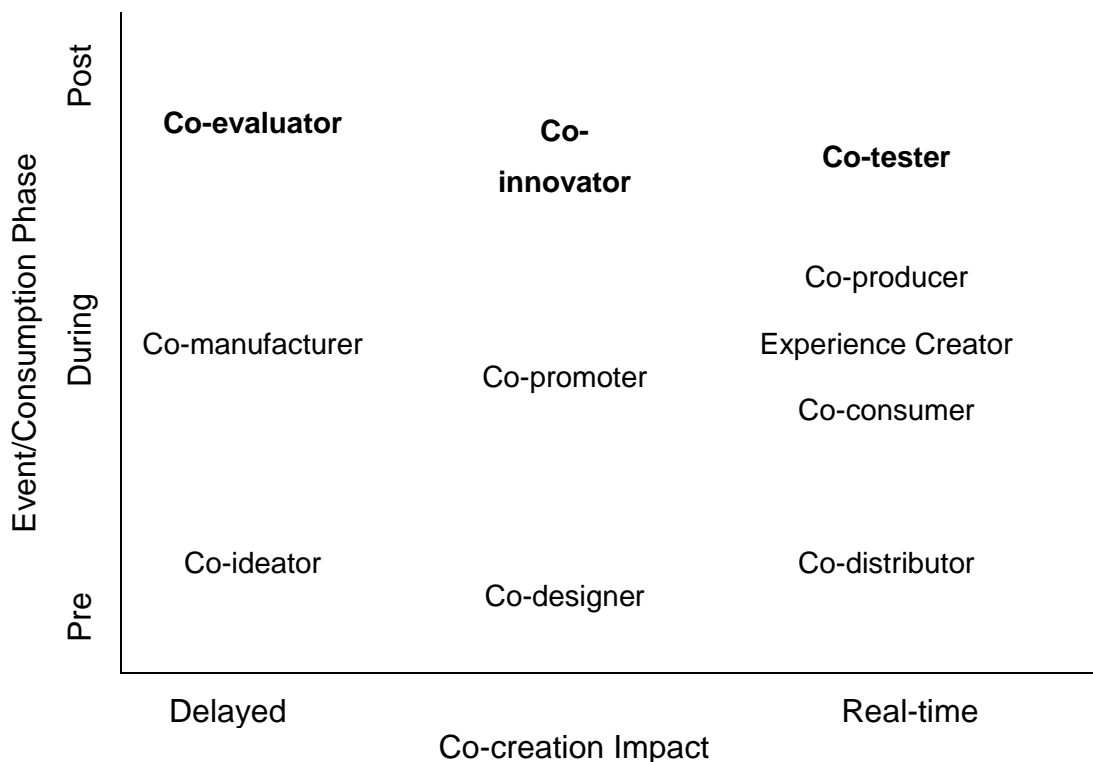
support memorability and to enhance meaning through participants connecting, communing, bonding, and belonging practices across the multiphasic event journey, (Rihova, 2015; Rihova et al., 2018).

As highlighted in chapter six, there is a significant challenge to the liminal on-site phase of the event experience. This emergent event experience is perceived by event fans as becoming more connected and integrated through faster, more stable and more available connectivity. This was evidenced in chapter five and supported in the literature review, even though dis-connectivity in some contexts is also desired (Neuhofer, 2017). Information and integration are critical enhancements sought during this phase of the digital event experience (Agrawal and Rahman, 2015). Fans seek to be provided with an augmented and amplified relativity to the wider event community but often a paradox exists due to inter-relational discord between 'real fans' and those with whom presence and location are more transient (Hutchins, 2016).

Undoubtedly, as has been evidenced in chapter six, co-creation practices can offer an improved event experience, particularly when focused on the digital component. The importance of understanding the variety of ways in which co-creation can be adopted into events and in what manner is provided in Figure 7.1 below, which presents the roles and impact of co-creation within the digital event experience. Examples of each potential co-creation role are adapted from the contribution of Agrawal and Rahman (2015) and placed within the multi-phasic event experience dependent on the delayed or real-time impact the role mainly produces through its function. In terms of the wider service marketing perspective, the presentation of event or 'consumption' phase make the findings relate more widely and beyond the context of events. Consider the retail consumer of fashion items from the multi-stakeholder perspective and in the MTM context. They too are being integrated further into the value chain by companies like Zara. Moving into considering the future of retail in an age of 3D printing, it is possible to see 'co-manufacture' of goods and experience touchpoints becoming a reality through such sharing of operand resource and the integrating of operant resources such as knowledge and skill through interaction (Ranjan and Read, 2014).

Building on findings in chapter five expressed through table 5.3 Digital Event Fan Engagement, the following figure is proposed as a means of incorporating MTM value co-creation practice through specific roles and relative to potential experience impact in terms of its temporal nature. In terms of tacit co-creation, those identified as ‘smart agents’ and dynamic ‘info-grated’ independents offer the best fit in regard to MTM engagement through technology enabled co-creation practice and in sharing value created in this way as part of the event tribe. The balance of these competing agendas for integration and privacy at one level ensures a more reasoned and open value co-creation practice to emerge (Pires et al., 2014). It must also be noted that through wearable technologies, such as RFID on wrist bands or in clothing, that MTM co-creation can be facilitated with less requirement of operant resource capability from technophobe perspectives.

Figure 7-1 Co-creation Roles - Impact and Event Phase



Utilising Agrawal and Rahman’s (2015) presentation of the multiple roles of co-creation framed within SD Logic in this way (see figure 7.1 above), offers an important contextualisation of these roles in how events and customers can engage and interact through ICTs. This is done to improve service

encounters from both implicit and explicit perspectives of value which provides meaning, satisfaction and an enhanced experience (Vargo et al., 2008b). In this contribution, a further layer of analysis highlights these roles in the context of the event app experience as identified at various stages of the research process. In terms of new knowledge, this contribution is founded on the findings of chapter 5 and related through table 5.1 where actors and actants involved in the value dialogue are revealed through empirical analysis in the context of the NW200 event app experience. This evidence is crucial in presenting a multi-stakeholder and networked perspective of value co-creation in the MTM context, revealing the range, diversity, dynamic nature and intersubjectivity at the heart of event experience being unfolded within the digital realm.

Understanding of these developing co-creation processes and outcomes as well as the roles adopted by participants in such MTM contexts in realising or seeking value are critical to understand in the pursuit of improving the experience and increasing satisfaction (Luxford and Dickinson, 2015). The importance of this is highlighted by Agrawal and Rahman (2015, p.150) who argue that *“knowing about customer experiences, whether favourable or otherwise, could help the firms in achieving customer satisfaction, and with satisfaction come loyalty, retention and profitability.”*

7.1.4 Examples of MTM Co-Creation Roles in Experience Enhancement

The following are examples of actual role adoption around the co-creation of the event app experience through MTM practice and are organised more simplistically as pre/during/post event activities (Berridge, 2007). The reality is that roles operate across different phases and in different ways. For example, as Agrawal and Rahman (2015) highlight, co-consumption is a multiphasic role critical to the creation and consumption of meaning by individuals and also the macro level experiencing of the event’s culture.

Table 7-2 Examples of MTM Roles and Activities of Co-creation of Event App Experience.

<p>Pre-Event</p>	<p>Co-ideation – the ‘in-app’ forum was a space where some participants sought to impart new ideas. Social media was another locus</p> <p>Co- innovator - identify and integrate lead users through in-app push or via app forum to participate in experience development.</p> <p>Co-Distribution – The app being shared through the ‘share’ feature in app targeting a wider distribution of users.</p>
<p>During Event</p>	<p>Co-manufacturer – Shared content via submit a photo or through the app forum.</p> <p>Co-promoter – checking in at events in-app and sharing with social network through share feature.</p> <p>Experience Creator – using the hashtag feature to supply the app’s social media feed as well as co-creating with other co-consumers.</p> <p>Co-producer – Participating in social media polls via push notifications and sharing content through networks.</p>
<p>Post Event</p>	<p>Co-evaluation – push notification to steer fans toward an ‘in-app’ survey of the event app experience.</p> <p>Co-design – The use of customer design resources was evidenced in presenting a concept for a new user experience and interface for race data to be presented.</p> <p>Co-tester– presenting visual ideas for new UI via a preview app and engaged through a push notification to current app users.</p>

The previous table (7.2) and the matrix at figure 7.1 of roles and impact of co-creation within the digital event experience serve as guides of engagement. These can be used as a tool in supporting practitioners and guiding academics in research and development around the emerging event experience and to envisage the potential to engage event consumers in MTM co-creation practices (Tracy, 2013; Best et al., 2018). In the next section, focus is placed on the emergent experience as a means by which to focus the pursuit of engagement within a holistic framework satisfying practitioner and academic needs in pursuit of new knowledge and experience enhancements (Getz and Page, 2016).

7.1.5 The Mediating Role of ICTs in MTM Co-creation

The mediating role of ICTs and their escalating impact on experience is unquestionable (Neuhofer et al., 2012). As Van Winkle (2016, p.204) posits:

“the potential for technology to advance our interactions is becoming increasingly apparent as digital offerings expand to provide new and innovative experiences for individuals and organizations within leisure, tourism and event contexts.”

Evidence of the seeking of such integration and the willingness to participate in co-creating experiences has been provided throughout this research process, including in the context of several roles as well as responsibilities for the actors involved, particularly in the MTM context.

There is evidence of such ICTs being used in smart contexts, such as that suggested by Wang et al. (2016), who present the potential of mobile applications to improve experiences. This can be achieved by providing data on waiting times, on the location of alternatives and the potential to make reservations of experiences in real-time (Buhalis and Amaranggana, 2015; Gretzel et al 2015a; Buonincontri and Micera, 2016). ICTs are thus a fundamental in terms of overt experience support (consumer-led experience co-creation such as real-time experience enhancement) as well as more covert insight and analytics-driven experience mapping such as crowd shaping at a strategic level supported by leveraging real-time insights (Brown and Hutton, 2013; Gretzel et al., 2015b; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018). These opportunities to have a behavioural impact to enhance experience will undoubtedly have organisational impacts in their delivery. These behavioural and organisational impacts from embracing MTM co-creation are further explored through the following section.

7.2 Emergent Experience Engagement Framework

The primary contribution of this thesis is to Service Marketing literature and through an SD Logic lens focused by MTM co-creation practice. By utilising Mixed Methods Phenomenological Research (MMPR) for the first time in studying an event app as it is integrated into the digital event experience, a range of identified sought outcomes are understood which are also helpful

to the events as a context of co-creation. These findings have been positioned within the wider event experience in addition to evidence of experience co-creation activities and their impacts.

Perspectives from event stakeholders and academia related to technology mediated MTM co-creation have also been garnered through semi-structured interviews and are unpacked now to add new knowledge to the understanding of the emerging event experience phenomenon (Bustard et al., 2018). Achieving this will require the exploration of actual and perceived value derived from experience co-creation practices as well as projecting these value-creating encounters against emerging smart experience discourse (Gretzel et al., 2015a). As was presented in the previous section, MTM value co-creation sits at the heart of the multiphasic digital event experience and can be understood through several roles adopted in the process of co-creation (Zwass, 2010).

The following section focuses on the various areas of event experience of which co-creation impacts and of which management, stakeholders and academics must focus for the creation of new experience knowledge and understanding (Getz and Page, 2016).

7.2.1 Redefined: Multiphasic Digital Event Experience

Analysis carried out through literature review and confirmed in the subsequent study of co-creation and the digital event experience has led to the positing of a new definition of the multiphasic digital event experience. This new conceptualisation takes account of the impacts, granularity and contexts at play (Neuhofer et al., 2016b). Research across each element of the study has assisted in reformulating the conception of the event's digital phenomenon.

The digital event experience can be understood as being a multiphasic and multidimensional consumption journey with co-creative opportunities for individuals and event communities. These consumer journeys are mediated through ICTs across both spatial and temporal contexts with the aim of supporting individual and personalised preference for information,

integration and entertainment by supporting memorable and meaningful experiences and encounters (Morgan, 2008; Geus et al., 2016).

The following section focuses on representing this new conception through an explanatory visualisation of the influences on the digital event experience and focused on the synthesis of prior literature and models to produce a holistic offering.

7.2.2 The Digital Event Experience Phenomena Conceptualised

In the first part of this chapter, the focus was placed on MTM co-creation and the impact of ubiquitous connectivity and ICT proliferation across the multi-phasic event experience, particularly the on-site phase (Luxford and Dickinson, 2015). Through an understanding of the principles of SD Logic, the seeking of contextualised and real-time information is a significant experience outcome sought by event fans (Bolan, 2014; Van Winkle, 2016). This is built upon the expectation (often created by consumer experiences in other settings) that events can deliver focused, targeted and relevant information to facilitate decision making and ever more personalised and informed experience outcomes (Neuhofer et al., 2015a).

In presenting a cohesive argument for the conceptualisation of the digital event experience, a model based on Morgan's (2007a) 'Prism of Event Experience', as adapted from Kapferer's (1998) brand identity prism is proposed as a starting point (see Figure 3.5). As well as data gathered through semi-structured interviews on-site at the NW200, interviews with Tourism and Events academics assist in underlining the necessity of an updated event experience model adopting a digital context (Getz and Page, 2016). The interviews combine to provide additional clarity related to technology-enhanced experiences, ICT enabled MTM co-creation and innovation as well as Smart Tourism and Events conceptions. This is critical given that this a pivotal time in the development of experiences embedded within the IoT and understood through Smart Tourism conceptions (Buhalis and Amaranggana, 2013; Gretzel et al., 2015b; Buhalis and Leung, 2018).

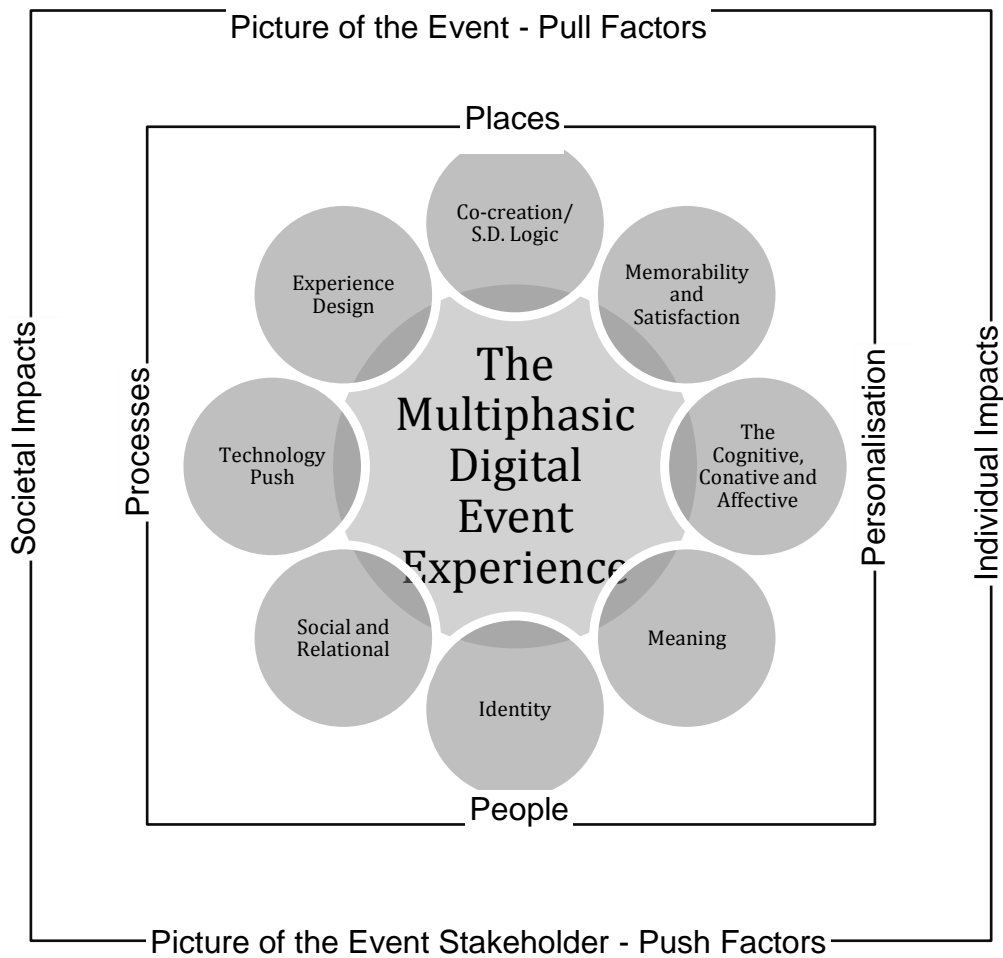
Through the literature review and further evidenced and presented in the findings, an emergent 'multiphasic digital event experience' is identified.

This is impacted by varying contexts including personalisation (the individual and subjective), processes (context and preference), people (identity and relational needs) and places (experience-scape and realms). This framework presents a more holistic view, by adapting the prior perspectives of event/stakeholder push and pull factors (Morgan, 2007a) balanced with external and internal factors impacting on event experience (see figure 7.2).

From Event Management perspectives, design, service logic, memorability and satisfaction are critical strategic components of sustainable advantage. These are counterbalanced through push factors from fan and other stakeholder perspectives where sought out experiences positively impacting identity, meaning, relational and social outcomes are the objective (Benkendorff and Pearce, 2012). Consideration of the externally impacting technologies (spilling into experience), as well as their impact on the essence of the individual internally - through cognitive, conative and affective encounter, are also mapped within the new multiphasic digital event experience conceptual framework.

Figure 7.2 presents a conceptualisation which integrates elements impacting the emerging digital event experience and acts as an important means of framing the digital event experience more holistically.

Figure 7-2 The Multiphasic Digital Event Experience



7.2.3 The Multiphasic Digital Event Experience

The model assists in clarifying the myriad impacts and factors which underpin and are critical to the evolving experience of event participants and acts as a useful starting point from which stakeholders can begin to engage people in the process of digital experience co-creation (Kinuunen and Haahti, 2015).

7.2.4 People and Personalisation

Figure 7.3 below presents a matrix of participant smartness (Buhalis and Amaranggana, 2013) and willingness to engage (Geus et al., 2016). Chapter five had presented the existence of a typology of digital event co-

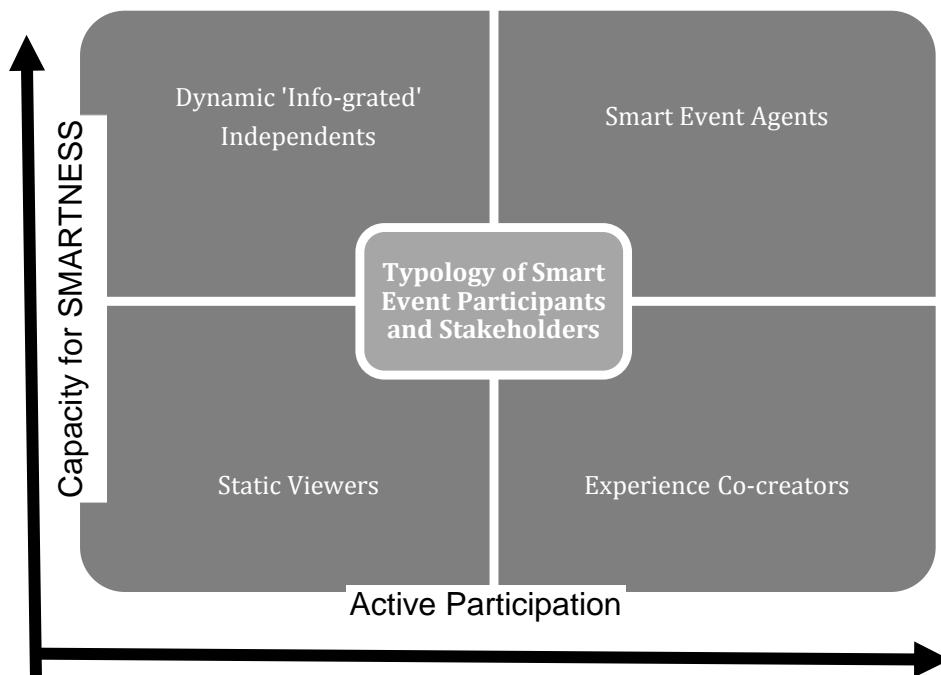
creation in the MTM context, which is based on evidence of participation within the online focus groups and which included people in particular sets based on:

- a) Capacity for Smartness – inherent capabilities to leverage ICTs;
- b) Willingness to Engage – openness to engaging in co-creating outcomes.

The findings reflect a new typology of digital event fans and stakeholders' existent or impacted in digital contexts through their capacity and participation in the context of MTM co-creation of event outcomes.

This new matrix provides additional focus on the potential of the consumer as co-creator and provides a useful tool supporting Neuhofer et al.'s (2012) Technology Enhanced Tourist Experience Co-Creation Matrix, discussed in the literature review.

Figure 7-3 Typology of Engagement – Emergent Experience



Filtering potential technology deployments generated from Neuhofer et al.'s (2012) Matrix of Technology Enhanced Tourist Experiences provides a much-needed check on the propensity of fans to be facilitators of experience enhancement (Bolan, 2014). It also provides a useful tool to leverage

analysis of potential technology investments or of technologies such as many of the ICT's spilling over into the experience-scape (Pettersson and Getz, 2009). Benchmarking of the current fanbase and/or stakeholders is also a critical benefit of utilising the typology of engagement matrix for event insights, innovation and analysis. When asked to relate the challenges of delivering the digital event experience during interview, Gretzel (2017) highlighted:

“the type of audience - age, technology affinity, the culture of that event and the people who attend it. Some sports events like baseball are very much data based - it's all about the statistics.”

Armed with a better picture of the event's spectators, leveraging the typology proposed above ensures a more reasoned perspective on the strategic management of ICTs as part of the event experience.

Evidence in chapter five relates that current personalisation of the digital event experience of the NW200 event is most consistently derived through social media interaction via discovery practices and/or referral to existent networks of information (Vargo and Lusch, 2016; Van Winkle, 2016). This use of ICT can often run in parallel to the main event's social media and communications (Hudson and Hudson, 2013). This often happens unofficially but due to proximity and real-time context often provide much richer opportunities for fan engagement (Inversini et al., 2016). In this capacity of experience support through relevance, context and often delivering real-time insights from across the event's habitus exists the information ecosystem through which the digital event is often connected (Gretzel et al., 2015b; Buhalis and Leung, 2018). Given this perspective, it is critical to consider the digital event experience in a more holistic and multiphasic way but mindful of event culture and the management perspective adopted. As Neuhofer (2017) highlighted during interview:

“it really depends what kind of event it is and what kind of experience should be created. It should be designed to make sure that technology comes in at the right places. The question also is: are we looking from an organisational point of view, only at the on-site event experience or are we seeing the event as a more holistic happening that would also include the pre-event and the post-event phases. As a stakeholder and as an

organisation we want to co-create or engage our participants already before and after the event.”

As this study has already evidenced, the reality of smartphones and sensors becoming a more integral part of the experience journey can be seen through ‘location as a service’ experience integration and are already combining to create and control our behaviours. This is more evident within the emerging Smart Cities and by extension, Smart Tourism Events contexts (Lamsfus et al., 2015). The IoT’s expanding and ever more integrated sensory networks are proving to offer great potential regarding public benefit, making event experiences safer, more sustainable and increasingly personalised (Brown and Hutton, 2013; Tussyadiah et al., 2018; Buhalis and Leung, 2018). The real-time data created is fuelling new or hybrid experiences by offering information-rich interactions with more personal and targeted engagements whilst gathering critical insights through technology mediation (Wang et al., 2016). During interview, Gretzel adds a cautionary note relating to such personalisation:

“I think personalisation can also be too much and too limiting and eventually restricts you in terms of new exposure. That’s what new events are - you hear a band that you would never had heard before because they play as part of the event and it surprises you.. ‘wow, who is this?’ That’s great, but you would have never specified that this is a band you would have wanted to listen to. I think a mix is really important here of trying to understand preferences but also trying to push people a little bit, making suggestions that maybe they wouldn’t have thought about.”

This study has provided evidence of the increasing demand for experience personalisation. The advancing and evolving capabilities of artificial intelligence are more likely to turn this aspect of digital experience on its head (Tussyadiah, 2017a; Buhalis and Leung, 2018). Through automated, real-time content creation and experience enhancement across digital, physical and integrated experience domains - the immersion of users in augmented or virtual experience elements where ‘control’ is relinquished, and liminality is sought, may well see a whole new experience culture emerge (Tussyadiah et al., 2018). Consider the power of current VR and amplify it with AI that enables our preferences to become a visual and sensory experience of contexts, places and times (Bolan, 2014). Neuhofer highlights scenarios for technology enhanced experience of this kind:

“For events specifically, I think there is also a lot of opportunity that is more immediate in terms of VR. You can really create a nice VR video that allows a potential event goer to pre-experience that setting or that space and take a look at that and maybe even use it as a marketing tool because only when you virtually live through that then you might say "wow, this is amazing, I've never imagined that before" and that might even trigger and inspire you to go so it's not a replacement of going but it's more of a "wow, this has been great, it's a virtual experience and I want to experience the real physical experience.”

As is highlighted above, with the addition of other sensory outputs, there will be a whole raft of new ways to engage and explore by ourselves or as connected communities in an ever-expanding experience realm (Gretzel et al., 2015a). Firstly, the focus is placed on the impact of ICTs on personalisation in the multi-phasic event experience.

7.3 Mediating the Emergent Experience

This study found that there is a spill of ICTs and personal technology into the event experience-scape. It is important to acknowledge how these digital components more easily impact the affective elements of event experience (Wang et al., 2012; Martin and Cazarre, 2016; Inversini and Williams, 2017; Tussyadiah, 2017a). Given that liminality is significantly impacted due to the lack of a threshold between a participant's 'event self' and their digital and real-world personas, the separation and transitory threshold through which an event fan would have more easily passed in pre-digital event experiences, has become less overt and somewhat less available (Tussyadiah, 2017b). Due to the pervasive use of ICTs across life experience, in most contexts, it is directing users toward a more homogenous and universal experience of life through the small screens and social networks available through mobile technologies (Wang et al., 2012; Wang et al., 2014b).

Interview data from this study revealed the importance of the mediating role of an event's ICT strategy within the parameters of the expanding technology-laden experience-scape (Berridge, 2012a). Mediation of experience and the convenience of the smartphone as a personal interface, where the everyday meets the extraordinary is not a new conception in the literature (Jennings and Weiler, 2006; Tussyadiah and Fessenmaier, 2009;

Tussaydiah 2014). It has, as noted in the literature review, gained relatively less attention in Event Studies (Luxford and Dickinson, 2015). In relating how this mediation is developing apace, NW200 Operations Manager Fergus MacKay (2017) suggested the following in interview:

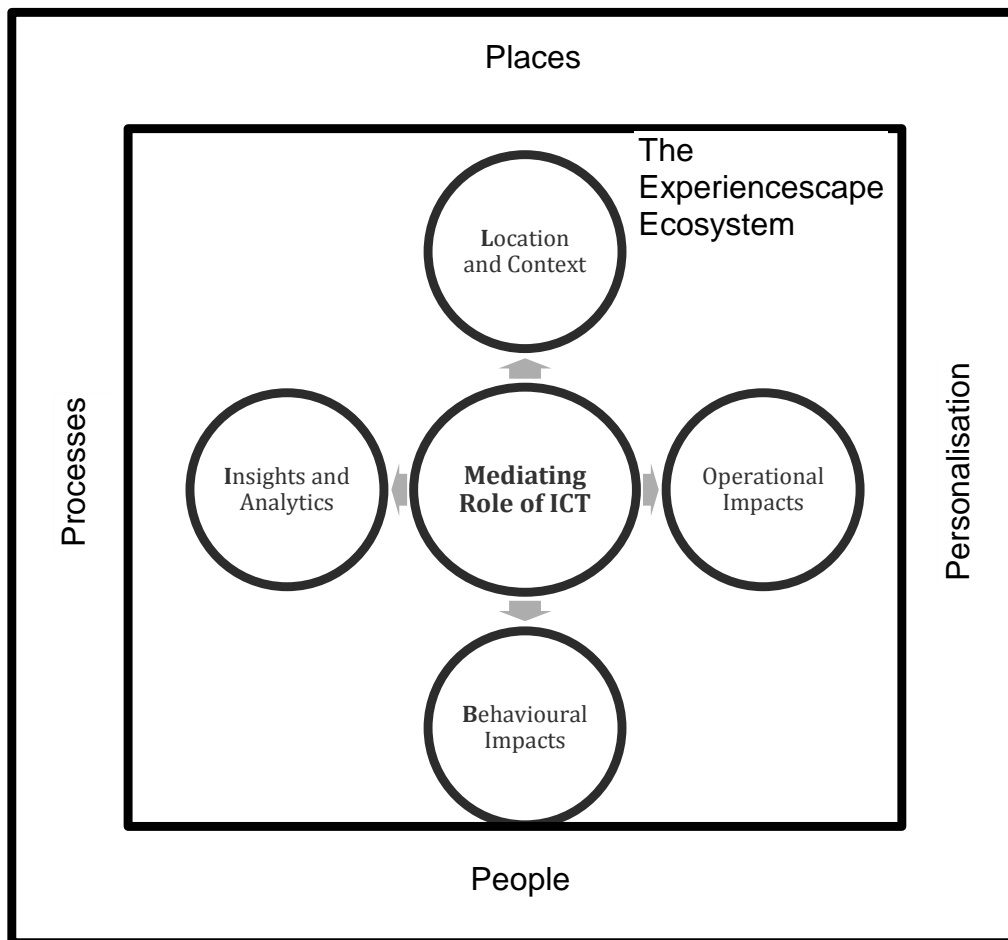
“This technology has to become much more informed, and it needs to become much more informed and needs to become much more personalised. Yes, the sort of the traditional e-business where one size fits all and everybody accesses the same information in the same format is probably changing quicker than we suspect.”

This important stakeholder perspective highlights the sense that MTM co-creation practice is leveraging personalisation processes through ICTs at a radical pace. This study found that personalisation of the experience through an event app can be seen as the critical mediating role if this ICT is adopted by fans (Tussyadiah, 2014). The inability to meet this requirement, where sought as an event support, leads to co-destruction of value within the experience-scape (Neuhofer et al., 2016a).

Such co-destruction, particularly in the MTM context can be catastrophic for event experiences. The driver of much of this engagement is convenience, a pivotal force regarding the role of ICT in mediating the experience with the same value destroying outcomes where the context and preference of use are not met (Neuhofer, 2017). Thus, the mediating role of ICTs in an event experience will have impacts across a range of contexts (Buhalis and Amaranggana, 2013; Gretzel et al., 2015a).

The following figure builds on the conception of mediating experience as presented by Tussyadiah (2014) and assists in illustrating these areas of impact and offers a holistic framework through which to view ICTs and their impacts on people as they seek to co-create value through the MTM context within the experience-scape (Berridge, 2014a). The framework is titled the ‘MOBILE framework’ due to its use of an acronym made from each area related including Mediating Role, Operational Impacts, Behavioural Impacts, Insights, Innovations and Analytics, Location and Context within the Experience-scape/Ecosystem itself (Bustard et al., 2016).

Figure 7-4 Mobile Framework for Digital Experience Analysis



With a focus on the ‘experience-scape’ as presented in Figure 7.4 above, it is bounded by the superordinate themes of digital event experience encounter which hints at the subjectivity and the diversity of what is to be experienced and by whom, in what way and where (Tussyadiah, 2014). In interview, focusing on the mediating role of some platforms in Smart Tourism Event contexts, Gretzel (2017) highlights:

“Thinking about this as an ecosystem allows you to think about different players and their roles and interdependencies but in the Smart Tourism context also, this notion that people can change very quickly so that they’re both consumers as well as producers of experience. They are also now media companies of sorts, because they broadcast messages. Additionally, you have platforms or providers coming in that maybe you didn’t think were important but now suddenly, Instagram is a player or Snapchat - people are now broadcasting their event stories on a variety of platforms.”

This study of the NW200 has highlighted that this is important regarding a holistic engagement focus as these platforms can only be influenced by

participation. Event Management teams require the necessary ability to assess all platforms (event bespoke or social media) for their mediating role in the event experience and begin to leverage this knowledge to improve the emerging digital event experience across its phases and in MTM contexts.

Reaching further, consideration must be taken of Neuhofer's (2017) perspective on the development of experience beyond mobile:

"I think we will encounter a lot of disruption in the next years ... whether it's artificial intelligence or the still developing smartness concept. There will be more to be seen from virtual reality, augmented reality and simply human augmentation in the sense that you really incorporate this whole idea of making their reality through different devices that might not just be your smartphone but might be your glasses, your contact lenses, wearable devices, so we think we will see a lot of development in those areas. If we see these new kinds of technology adopted, then we will also have new opportunities in the way we design experiences and create experiences for and with our customers."

This study has found the reality of this MTM value co-creation practice is already advancing through IoT and by the integration of personal ICTs into many destinations and event experiences (Buonincontri and Micera, 2016; Buhalis and Leung, 2018).

In terms of current examples of behavioural/organisational impacts, location and context perspective, and innovations and insights from with the event experience-scape/ecosystem, the following table provides key examples from the data relating to the mobile framework presented at figure 7.4 and includes examples related to the operational impacts, behavioural impacts, location and context, insights and analytics which are resultant from MTM value co-creation through technology in event contexts.

Table 7-3 Beyond Mediation: Context and Types of MTM Co-creation Impacts Through Technology

Context	Types
Operational Impacts:	Data management, Managerial challenges, Stakeholder integration, Smartness, Operations, Engagement.
<p><i>"We could offer packages for people if they're at the event, they're here at the North West 200 and it's their first time being to Portrush but they wanted something to do on the Sunday when everything's over we could offer them surfing lessons, paddle board lessons, board and wetsuit rental we could offer them a discount in the shop so that would promote our businesses and hopefully they would have a great experience in trying a new sport or something like that? Other things like restaurants, bars, foods, takeaways could also integrate and offer a discount voucher or something like that for the event.." - Interviewee 1</i></p> <p><i>"I don't think there'd be any challenges, I think it would be good to share information and I definitely think if you were doing so in conjunction with the traders and sponsors as part of the app, linked - this would keep all sponsors and stakeholders involved in keeping the event going." – Interviewee 3</i></p> <p><i>"..people then expect that there is information and so from an industry/provider point of view - where does that data come from? Is that data reliable? Who cleans that data, who processes the data, who combines the data? It all sounds great if you're a giant like Google but if you are a small event I think that could create some problems." – Interviewee 10</i></p>	
Behavioural Impacts:	Connectivity, Co-creation, ICT infrastructure, Smartness, Operations, Safety, Security, Privacy
<p><i>"..crowds, you want to understand where you are in relation to other people. An app that can help you navigate is important in terms of showing 'you are in a very crowded area now, why don't you move to this other location?' - I think this, also from a management point of view, is very important given that crowd management is one of the most important things about events." - Interviewee 10</i></p> <p><i>"It would be great if it spelt exactly where everything was - where your food was, where your granstands are, where the trade villages are, particularly for visitors coming for the first time. They can look at the app and go "Oh - we can go here or there, take in this vantage point and get access to food at the same time". – Interviewee 2</i></p>	
Insights, Innovation and Analytics	Product development and Marketing management, Operations, Safety, Security
<p><i>"it's very important that we have these tools come together. I don't know why they're so slow in adapting to them but I think it can definitely change how stakeholders can interact with each other. How to design what is effectively to go into the event for example, the design aspects can be enhanced with so much data from the site." – Interviewee 8</i></p> <p><i>"I have a chance as a customer to not only personalise my experience but also to be able to get all the information I need in a quick way and to be able to link that quickly together. So there is another layer in having bits and pieces of information around or not in the right place. I want to have minimum time organising and preparing my event experience. I think this is something I can see where the value can be created." – Interviewee 9</i></p>	
Location and Context	Personalisation with Event Location, Contextual personalisation, Extraordinary encounter, Surprise, Support, Engagement

<p><i>"I think with very spectator focused events I think the question is always where are people looking? So if you provide information it's not just the position in space but also the orientation in space" – Interviewee 10</i></p> <p><i>"Well - if it knows my location it can direct me to locations or through maps to the event or any partners to the event that might have offers on or that sort of thing. Race times, etc - that would be my location expectations - can i think of anything else..? I suppose a map to basically tell me where the food is, where drink is, where the start and finish is, where the media is, the pits are - that sort of thing." – Interviewee 1</i></p>	
<p>Experiencescape/ Ecosystem</p>	<p>Multi-stakeholders, Interconnectivity, Interoperability, Safety, Security, Personalisation, Satisfaction</p>
<p><i>"I would also think that if you had a lot of vendors at an event, if it's very distributed, not only in space but also in terms of 'who offers what' - that just creates a need for people to keep track of things, to navigate, to understand what's going on in different areas of the event. Related to crowding - wait time, the management of the waiting I think becomes very important. Safety issues - as I said also understanding if there is an emergency, the app tells you where to go. It's kind of like a little safety blanket so I think that it is also connected to what kind of event that is.." – Interviewee 10</i></p> <p><i>"Personally if I use an app at an event with that functionality, I think it can add value, especially if it's a big event, on a large scale. I'm talking about an outdoor or an indoor event but particularly an outdoor event that is huge where I need to actually navigate. Where it makes sense to have the GPS signal and understand where my location is in relation to other points of interest that I might go to." – Interviewee 9.</i></p>	

Findings in the study present significant warrant for stronger adoption of technology in the development of MTM value co-creation, particularly in the context of large-scale events. The development of smartness as an internal capability and across the multi-stakeholder network of the event ecosystem should be a priority for larger scale events such as the NW200 but also beyond to contexts such as the Olympics, World Cup and other global events where facilitating MTM co-creation can drive engagement, integration and further drive innovation and experience enhancement as has been demonstrated in the findings. Competitive advantage from MTM co-creation can be leveraged through large scale events and the following section highlights these significant opportunities.

7.4 Competitive Advantage from Emergent Event Experiences

It is evident that events are now used as key attractors in seeking competitive advantage and differentiation for destinations competing with regional and global competitors (Crouch and Ritchie, 1999; Getz and Page, 2016; Bustard et al., 2018). The integration of event visitors with wider tourism stakeholders at event and destination level has never been more

important to enhance experiences and increase satisfaction (Luxford and Dickinson, 2015).

Introducing the conceptual model of Smart Tourism Destination Competitiveness, Koo et al. (2016) highlighted 'Special Events' as a core attractor within this paradigm. As a means of producing extraordinary experiences at scale, these events deliver critical means to improve destination image and marketing efforts (Getz, 2008b). The opportunities for better interoperability of stakeholders in tourism through embedded info-structures as well as through user integrated ICTs at all stages of the experience journey has become a clear Smart Tourism focus. This is suggested to increase satisfaction by enhancing tourist experiences and in so doing, offering a sustainable competitive advantage (Buhalis and Amarangana 2013; Buhalis and Leung, 2018).

As a social phenomenon, Smart Tourism and its core attractors such as those outlined by Koo et al., (2016) in the destination competitiveness model, must become impactful experiences of tourism and events in people's journeying. In a dynamic and competitive marketplace, it is crucial that they support SD Logic through personalisation and co-creation opportunities (Neuhofer et al., 2015a). Mobile applications (apps) often provide one such process touch-point for co-creation and experience personalisation (Luxford and Dickinson, 2015). Thus, apps can be seen as a critical conduit of connectivity and intelligence where people can engage an experience (like an event) in technology-mediated actions which leverage the real-time opportunities and interoperability of the paradigm of Smart Tourism (Gretzel et al., 2015; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018).

Events, as found in this study, offer one such means of engaging smart technologies for this explicit purpose. This can be achieved by leveraging sensors and smartphones through intelligent applications and technologies, through the Internet of things (IoT), near field communications (NFC) and the exponentially increasing volume of sensors employed in experience-scapes, which can coordinate technology-enhanced experiences integrated with real-time experience impact (Neuhofer et al., 2015a; Buonincontri and Micera 2016; Buhalis and Leung, 2018). As has also been evidenced, technology solutions can create or destruct value across the multi-phasic

tourism event experience. Therefore a cautious strategic approach and framework for implementation are suggested (Neuhofer et al., 2016a). Event professionals are beginning to understand and perceive the potential of smart experiences. Event Operations Manager for NW200, Fergus McKay (2017) when interviewed highlighted that:

“nowadays we expect that our interactions with software is going to anticipate what we would like, what our preferences are and actually have some learning attached to it. I think from the Smart Tourism side of things, we are very much an experiential tourism product.”

Smart Tourism contexts, where consumers become central actors integrating their resources (operand and/or operant) in seeking multi-channel co-creative encounters and value through other actors and networks, is an action which is happening more frequently as evidenced in chapter six (Neuhofer and Buhalis, 2013c). By adopting and adapting our view of technology through what is termed ‘smartness’ (Buhalis and Amaranggana, 2013; Gretzel et al., 2015b), technology use for co-creation in this paradigm can build around the human experience, integrated with both human and non-human actors in micro and macro-managed moments. These as a means of shaping safe, creative and transformative experience encounters (Wang et al., 2016).

Neuhofer (2017) further eluded during interview to the significant and immediate challenges for event engagement offered by such technologies:

“what tourists really need and at the end of the day, we really need to understand IS the tourist or the event participant and their needs and then develop the technology, I think it needs a really customer centric perspective before making any big decisions around technology. We shouldn't be adopting technology just because we can and it's there and we do something but if we don't see the value for the tourists.. I think the starting point is the tourist, then understanding the needs and the purposes of that experience and the value that the tourist should get from an experience and then we see which technology we can implement in which phase and through which touchpoint.. but not blindly adopting technology because something new is coming out and ‘let's do that’, if the purpose is not clear.

This is an important and often overlooked perspective of creating extraordinary encounters in the experience-scape and interconnectivity of

info-structure offered by the conception of Smart Tourism provides for new paradigmatic experiencing of events in tacit and more hidden ways which is posited next (Koo et al., 2016; Buhalis and Leung, 2018).

7.5. The Smart Event Experience

The seeking of a deeper understanding of the nuanced and subjective event experience and focusing on the digital component has provided new insights into the phenomenon of study relating to the sought outcomes of event fans (van Winkle et al., 2016). Much has been made of the physical design of event spaces (Nordvall, 2014) and of the increasing importance of group identity through pursuits such as ‘*voluntarism*’ (Getz et al., 2015, p.618). The potential to enhance fan experience through MTM co-creation practices of event fans and stakeholders from the network perspective, leveraging technologies from the Smart Tourism paradigm, remains somewhat less researched (Gretzel, 2015c).

This study has highlighted the potential for tacit and directed digital voluntarism as a means of improving information and enhancing the experience. This has been shown to be achievable through facilitating event fans with content or license to co-create. This helps build social capital by engaging and sharing across personal networks as a form of identity building and sociality, e.g. from an ‘*in the know*’ perspective. This study has empirically highlighted that there are significant and emerging opportunities to leverage connected and creative event-goers as a means of augmenting the wider needs of fan engagement, particularly during the all-important ‘*in event*’ experience encounter (Robertson et al., 2015).

In a recent paper Bustard et al. (2017) posit:

“that we are moving ever closer to the ‘smart event experience’ – one which could be defined as experiences created through processes of personalisation driven by people, augmented by technologies, which seek to improve event outcomes both for the individual and for the event as a whole. Thus, further conceptual focus must be applied within Event Studies on this paradigmatic evolution.”

This more novel experience encounter (Geus et al., 2016), is one which is emerging as an opportunity for event management to embrace and amplify.

This is particularly given the relinquishing of the responsibility to 'own' key resource inputs which may well be outside of the budgetary capability of the staging of the event in ever more challenging fiscal conditions (Devine and Devine, 2016). Setting aside the negative impact of these digitally mediated experience elements, which may inadvertently impact in changing rituals of event fans (Hutchins, 2016), this research would highlight the potential to powerfully impact and engage experiences across the cognitive, conative and affective dimensions, when considering potential impacts (van Winkle et al., 2016).

Regarding cognitive impact, evidence from the projective reflective analysis would suggest that a better understood and informed digital event experience, better integrated and connected, is likely to contribute to a more positive overall experience outcome (Bustard et al., 2018). This is a critical outcome to accommodate when there is evidence of events choosing to digitally disengage due to fear of negative commenting or experience sharing (Neuhofer et al., 2016a). Consider the event fan who is frustrated by programming delays or a lack of information through official channels, who can now leverage event and social networks to engage in digital event activities and to share in wider event discourse (Luxford and Dickinson, 2015). The obvious challenge is amplifying what is reasonable and positive, but platforms like periscope are beginning to facilitate crowdsourcing as a means of vetting content for suitability and engaging fans in that dialogue. This is offering deeper connection in contexts where temporal engagement is of significance (real-time) but where spatial dimensions are of less relevance (location to the event).

The example above also highlights the conative opportunity - a chance for people to be active and although the activity is 'doing digital' in this MTM context, it is still providing the potential for positive affective outcomes for those individuals engaged (Hudson et al., 2015). This is achieved through their existing or emerging social media ecosystem and in ways that offer attitudes, emotions and behaviours to be affected in meaningful ways, albeit context and attention specific (Buhalis and Foerste, 2015; Van Winkle et al., 2016).

Positive affective outcomes of such 'digital doing', as has been highlighted in chapter six, is not always supported on a number of levels. These levels include the infrastructural, technological as well as the sociological in relation to the multi-phasic event experience but in particular impacts more significantly on individual experience within the 'in-event' or real-time context (Gretzel et al., 2015b; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018).

7.6 Chapter Summary

As has been noted in this chapter, the involvement of people in MTM event experience and value co-creation is increasingly extending far beyond the physical event realm and encompasses a multi-faceted digital event experience; often mediated by a range of ICTs, delivered and experienced through mobile technology.

By exploring MTM co-creation in the event context, the evidence base has supported the development of the MOBILE framework which provides a holistic model of engagement (see figure 7.4) for event practitioners and a significant contribution toward understanding MTM co-creation in Service Marketing more widely. It is used to map ICTs strategically around the experience they provide. It also supports opportunities to further leverage current or new ICTs (Tussyadiah, 2017a). Knowledge of the mediating role of technology in relation to behavioural and organisational impacts as well as integrating insights, innovation and analytic outcomes can be seen regarding the various locations and contexts of the emerging event experience (van Winkle et al., 2016). Mindful of the experience-scape being made up of multiple human and non-human actors as co-creators, the model is further supported by a typology of engagement (see figure 7.3), useful in the analysis of event and stakeholder smartness in these MTM contexts and their willingness to engage. The redefined and Multiphasic Digital Event Experience presented in figure 7.2 provides an important contribution to event theory in bringing focus on the multifaceted and multiphasic nature of the digital component of event experiences supported through the granularised perspective adopted through literature review and

subsequent integration of findings related to the digital event experience (Morgan, 2008; Getz and Page, 2016).

Finally, through defining the Smart Event Experience (Bustard et al., 2017), there is a warrant for further study of this emerging phenomenon and its impact on both event experiences and its impact as a competitive advantage within Smart Destination Competitiveness strategy (Koo et al., 2016). The following chapter now brings together a synthesis of key findings underpinned by the study's objectives to conclude this thesis.

CHAPTER EIGHT: CONCLUSIONS

8.1 Meeting the Research Aim and Objectives

The overarching question of this thesis was to explore how event experiences are evolving in an era driven by ubiquitous connectivity, the search for more personalised experiences and through the conduit of smart and social technologies. Choosing many to many (MTM) co-creation in the context of events within the emerging smart destination context and building on existent literature the following sub-questions were posited:

- a) How are event experiences and experience co-creation changing through mobile technology and ICT in the multiphasic event experience?
- b) What are the critical experience outcomes sought through technology enabled MTM co-creation from the consumer perspective in the context of an event?
- c) How can the event experience be enhanced through technology enabled MTM co-creation from the consumer perspective in an event context?
- d) Will MTM co-creation of the digital event experience through social media with spectators of an event improve satisfaction?
- e) What holistic model of engagement can be created to improve experience outcomes through technology enabled MTM co-creation using the context of events?

This research study utilised a mixed-methods approach to explore the fundamentals of the overall perspective of MTM co-creation through technology on the evolving event experience in the digital age and found the following in relation to each sub question:

- a) The literatures highlight that experience seeking is the central driving force for attendance at events (Morgan, 2008) but the measurement and understanding of these experiences is still somewhat of a black box (Geus et al., 2016). The need to articulate what the event experience is (Getz, 2008a) and the use of contemporary psychology to enrich Event Studies

has warrant in supporting the evolution of the event phenomenon (Beckendorff and Pearce, 2012). It is also clear that ICTs facilitate increasing levels of MTM co-creation across the multi-phasic event journey.

b) Through application of a projective reflective analysis (Tussyadiah, 2014; 2017a) with 116 event spectators focused on event app use, this study arrived at the conclusion that people seek experience value in their formal and informal event engagement through mobile micro-moments (Inversini et al., 2016; Tussyadiah, 2017a). Critically, there is an underlying event challenge which is to facilitate co-creation where a value-seeking action in MTM co-creation processes (B2B, B2C or C2C) could reduce experience through tacit or accidental co-destruction (Neuhofer, 2016a). A 'dynamic' expectancy exists in terms of real-time, integrated, social and meaningful information flow being available to event fans – even if it affects liminality through participants boundary spanning of physical and digital realms, hence the emerging impact of MTM co-creation.

c) Through an interpretive phenomenological analysis (IPA) this study discovered that experience value is collectively and subjectively sought through ICT and is revealed in the superordinate themes of People, Processes, Personalisation and Places (Smith et al., 2009). Overlapping experience outcomes are created or destroyed within the digital event experience (Neuhofer, 2016a). These experience 'value seeking' actions include renewal, reviewing and relational and leverage resource (operant/operand). The granularity of experience focused through app engagement also highlights the range of experience rituals and subjectively differing realities of participants across various realms of experience (physical, digital and the developing integrated realm). Personalisation of the event experience encounter by people integrating through processes linked to cognisant geospatial and temporal ICTs is an increasing reality for event fans (Beard and Russ, 2017) and indicative of the opportunities presented by MTM co-creation. This serves and challenges value-creating potential in such temporally mediated experiences.

d) Through analysis of a repeat two-year cross-sectional quantitative study of the event app experience it is found that co-creation offers a significant increase in experience value at events. Also, social media connectedness

is often a critical resource for event renewal, offering a cost-effective and measurable opportunity for increasing experience satisfaction, enhanced experience and furthering longevity in digital event engagement (Bustard et al., 2018). Significant positive differences in the measure of satisfaction and other related tests of experience enhancement were noted in an event where MTM co-creation of experience outcomes was explored and initiated in an event app.

e) Following synthesis of the findings a proposed holistic innovation engagement framework to support digital event experiences – particularly within the digital realm, was presented. Evidence also supports that, given the attention to smart destination theory, smart event experiences offer significant opportunity (Koo et al., 2016). As technology pushes into all domains and quite aggressively within the events industry, competitive advantage can be gained in some instances from either deeper digital connection or, indeed, disconnection (Neuhofer, 2016a). Large-scale events in particular, can create competitive advantage through use of AI, IoT and other technologies within a Smart Destination framework using the innovation engagement framework as a focus (Buhalis and Amaranggana, 2013; Buhalis and Leung, 2018).

This thesis contributes to Service Marketing literature through focus on the study of events by deepening our understanding of the digital component of the event experience (Getz and Page, 2016). It makes an original contribution through introducing methodological innovation to the study of MTM co-creation in the events context through the employment of Mixed Methods Phenomenological Research (Mayoh and Onwuegbuzie, 2013) and further adds new empirical assessment of the digital event experience in the context of the Smart Tourism paradigm (Gretzel et al., 2015a). It draws in the emerging and related literature streams of experience co-creation (Prahalad and Ramanswany, 2004), particularly that achieved through technology (Neuhofer, 2016b) and social media (Hudson and Hudson, 2013; Buhalis and Foerste, 2015). Importantly this study highlights the need to integrate participant experience expectancy with the new paradigm of the Smart Destination, where events themselves are resident

and offer excellent experimental opportunities for empirical study and impact of MTM co-creation (Koo et al., 2016).

This knowledge is critical to event management teams, destination management stakeholders as well as strategically, for local and national governments. Particularly given the planning of Smart Cities, destinations and attractions and its currency as an unfolding competitive advantage (Buhalis and Amaranggana, 2015). The engagement framework (Section 7.2) provides a roadmap for current and future event strategists to position and develop suitable capacity and resources to apply in the creation of event experiences that leverage core potentialities in the digital age (Hudson et al., 2015).

Future research into MTM co-creation of the smart event experience could seek to analyse the real-time value being created or destroyed through the event app experience and the wider implications to experience value of ubiquitous connectedness through mobile and wearable technologies (Bustard et al., 2017, Sinarta and Buhalis, 2017; Buhalis and Leung, 2018). The concept of smartness (Buhalis and Amaranggana, 2013), within service marketing and from an event perspective also offers significant opportunity for further exploration. How ready is the industry and its network of destination stakeholders to provide personalised real-time engagement as demanded by participants and often facilitated through non-event platforms such as social media?

Critically, this study reveals new evidence of the parameters of impact of ICT's and social media on the event experience in terms of people, places, processes and personalisation (Buhalis and Foerste, 2015; Bustard et al., 2018). The modern networked existence and an 'always on' digital element of connectedness creates opportunities and challenges of significance - socially, culturally and societally. This is particularly so, given the integration of AI as an augmentation of human knowledge and in ever more increasing manner as an influence on experience through communication, content creation, experience design and experience engagement (Tussyadiah, 2017a). In terms of the Event Studies literature, this thesis aims to offer a useful definition in relation to the Smart Event Experience and as such provides an important staging post through which to begin to explore the

myriad scenarios of future events and their impacts on the lived experience through MTM co-creation (Bustard et al., 2017).

8.2 Contribution to Theory

A central and core outcome of this thesis has been the development of several significant new theoretical conceptualisations using the context of the Multiphasic Digital Event Experience (Bustard et al., 2017; Bustard et al., 2018). This study is therefore invaluable to the advancement of Service Marketing and Management Theory as well as to Event Studies, in bringing together perspectives from three key literature streams impacting the core phenomenon of the event experience. This has been achieved through the empirical investigation of technology enabled MTM co-creation, which has received little attention in these contexts of consumption (Horbel et al., 2016). Beyond simply adding to Event Studies literatures, this contribution supports the wider research agendas of those areas of experience management linked through the lens of Service Dominant Logic (Bharti and Agrawal, 2014).

This thesis has sought to deliver a coherent and cohesive research approach designed to take advantage of significant theoretical advances in related disciplines and to move the Service Management and Marketing fields forward in an area which has up until recently, received little attention from academics within the field of study (Neuhofer et al., 2012; Luxford and Dickinson, 2015, Best et al., 2018). Perspectives relating to the promise and potential of technology enabled MTM co-creation and its increasing role in the field of Service Marketing and Management elude mostly to the benefits to customers and their experiences and less focus on the understandable fear of negative outcomes affecting the experience itself (Hutchins, 2016).

Examples of the benefits (personalisation, planning, integration and real-time context awareness) and challenges (issues of privacy, security, identity and a fear of manipulation) are not difficult to find within the data produced and revealed in the findings in chapters five and six of this study. These are also eluded to through the contributions of leading contemporary scholars in chapter seven as well as underpinned in the literature review (Neuhofer

et al., 2013; Buhalis and Amaranggana 2015; Gretzel et al., 2015a; Inversini and Williams, 2017; Vargo and Lusch, 2008, 2017). This process has produced significant new evidence to empirically advance knowledge related to ICTs use in co-creation in event contexts and within value co-creation discourse relating to experiences and ensures that academic practice is relevant in exploring this significantly impacting phenomena (Galvagno and Dalli, 2014; Getz and Page, 2016).

In the context of events, the data concurs with Luxford and Dickinson's (2015, p.43) findings that "there is a functional need for improved scheduling and live updates to make apps valuable tools while immersed in the festival experience." Thus, Event Management and stakeholders now have an additional framework through which to explore the criticalities of the event experience as a means of enriching, involving and immersing participants in a multi-phasic and multi-touch event journey (Neuhofer et al., 2016b). Firstly, an extensive literature review of the event experience, the critical subjective elements of focus have been discerned and applied to highlight a critical gap in Event Studies literature. This is where empirical studies focused on ICTs and the co-creation of the 'event experience' in particular have presented a major gap in applicable understanding (Horbel et al., 2016; Hoksbergen and Insch, 2016). This study has specifically generated a holistic conceptualisation of the multi-phasic digital event experience, which provides a comprehensive contribution that maps event experiences in this evolving era of ubiquitous connectivity and social and smart technologies. Thus, a theoretical construct has emerged and offers a useful basis from which to further explore and unpack the event context in varying constructs of lived experience and through both micro, meso and macro perspectives (Bharti et al., 2015).

In unifying a theoretical perspective of MTM co-creation enabled by ICTs within the context of the multiphasic digital event experience, the study provides an original contribution to Service Marketing and Management as well as to Event Studies. It has interconnected underlying theories through Service-Dominant Logic to ensure a conceptualisation which is applicable through the wider SD Logic lens but also distinct to events and thus has transferability and relevance to related fields such as experience design and

design science also (Tussyadiah, 2017a). This is where a more holistic and consumer-centric lens of study can leverage new and interesting research agendas toward increasing satisfaction and enhancing engagement (Getz and Page, 2016; Vargo and Lusch 2017).

Indeed, in contributing several new conceptualisations and models as part of the holistic engagement offering, it further develops discourse and theoretical development through the lens of SD Logic and in the context of Event Studies and in related disciplines. Specifically, the *Typology of Engagement for the Emergent Experience* (see figure 7.3) and the *MOBILE framework for Digital Event Experience Analysis* (see figure 7.4). The foundations of these contributions are laid in the findings and discussion chapters (five to seven) and supported by earlier theoretical contributions of this thesis which are explained below.

When consideration is given to the DEEDD framework (see figure 5.9) updated through findings chapter five and how it assists in unpacking the uses and gratifications sought by event fans through event ICTs such as apps, it facilitates as a lens through which to explore MTM value co-creation in experience and presents contexts of both co-creation and co-destruction. These are products of the pursuit of experience value across a range of other service and event related contexts (Martin and Cazarre, 2016). Consequently, this work makes a second contribution to Uses and Gratifications Theory (Katz et al., 1974) in the context of an event study and focused on such a digital component for the first time (Joo et al., 2015). Uses and Gratifications Theory has shown promise in communications research given its potential to identify differing types of benefit sought through media (Moon, 2016). The development of the DEEDD framework as a means to explore how such benefits shape behaviour regarding media usage provides a significant new contribution to communications theory in the context of the study of the digital event experience (Nambisan and Baron, 2009).

A third contribution has been the development through Interpretative Phenomenological Analysis (IPA) of the *Co-creation and the Digital Event Experience Model* (see figure 6.3). This contributes significant new theoretical perspective to the SD Logic perspective through MTM

technology enabled co-creation. Additionally, it adds a new contribution to this evolving phenomenon in the Event Studies context by encapsulating the multiphasic digital event experience from the event fan's perspective but with a multi-stakeholder network understanding (Smith et al., 2009). In doing so, it relates new knowledge of the critical factors at play for event fans in their subjectively lived experience-scape (Beckendorff and Pearce, 2012).

Finally, the development of the MOBILE conceptual framework, adds new knowledge to Service Marketing and Management knowledge, based on evidence gathered through this research and supplemented through perspectives and narratives provided in semi-structured interviews. These interviews offer an important wider perspective of MTM co-creation through technology in the context of events and were gathered at a meso level with key event stakeholders and at a macro level with academics with knowledge of Smart Tourism, event ICTs and Technology Enhanced Tourism perspectives (Gretzel et al., 2015a; Lalicic et al., 2015; Neuhofer 2016b). The model provides a simple but useful lens through which to analyse the mediating role of ICT in enabling MTM co-creation in the context of events and about their impacts behaviourally, organisationally, and regarding location and context, on the potential to generate innovation, insights and analytics to enhance event experiences (Bustard et al., 2016). Although the model is focused on the context of event ICTs it is reasonable to posit conceptualisations of use in service marketing and management as a means of thematically analysing ICTs and their mediating role and impact on experience design and management (Neuhofer et al., 2015b; Martin and Cazarre, 2016).

8.3 Contribution to Practice

When considering the pragmatic adequacy of this thesis and its potential to contribute to practice, one must consider the significant impact of ICTs and their spill-over effects on our lived experience. These impact in work, at rest and in leisure pursuits (Wang et al., 2012; Martin and Cazarre, 2016; Inversini and Williams, 2017; Tussyadiah, 2017a). As the MTM co-creation of digital experience unfolds within contexts of interest, such as at events,

frameworks to better understand the processes, personalisation, people and parts integrating to create these digital experiences are a necessity (Martin and Cazarre, 2016). This is of particular significance in continuing to deepen our understanding of application of SD Logic through technology. A key paradigmatic (technological and social) juncture, often related as Smart Tourism and understood sociologically as 'smartness' is a further area where such knowledge can be applied (Buhalis and Amaranggana, 2013; Gretzel et al., 2015; Koo et al., 2016).

Event technology is already a significant niche regarding Event Management, and according to Statista (2018), the Event Management software market globally is set to grow from \$6.2 billion in 2016 to \$8.66 billion by 2020 (Raj et al., 2017). The segment focuses on speeding up processes, connecting people and 'things' and by doing so, developing better experiences (Martin and Cazarre, 2016). These are foundational necessities of the emerging event experience and leveraging technology; the aim is greater personalisation and satisfaction through enhancement (Neuhofer et al., 2015a). This is set to accelerate as the spill-over of ICTs leverage consumers' new-found appetite for sharing, broadcasting, interacting and immersing in MTM co-creation (Hudson and Hudson, 2013; Tussyadiah, 2017a).

Being able to explore technologies through models and frameworks created by this thesis ensures a means by which practitioners can begin to explore new experience dimensions as they emerge through technology adoption in service marketing and within the context of events and festivals (Yeoman et al., 2015). Emerging smart event experiences such as those supported by Smart Tourism conceptions leveraging smartphone apps, which assist with 'crowd-shaping' are a significant value adding opportunity in experience management (Holloway and Brown, 2013; Martin and Cazarre, 2016). These adjust the event in real-time to benefit participants and other stakeholders in the event location. Applying new frameworks will undoubtedly benefit participants and stakeholders regarding conceptualisation, and as such, those offered through this thesis begin to support Smart Destination Competitiveness through better delivery of special events and experiences through MTM technology enabled co-

creation (Koo et al., 2016; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018).

Indeed, technology deployments such as virtual reality, augmented reality, wearable technology and integrated experiences with artificial intelligence such as chatbots or voice recognition are already becoming more significant across the events spectrum (Martin and Cazarre, 2016; Buhalis and Leung, 2018). Technology is facilitating what Goldblatt describes as '*events without end*' (Boshnakova and Goldblatt, 2017, p.5) – a product of increasing ICT integration within communities and experiences of what Toffler referred to as the technological society. This emerging connection and integration affect many contexts of technology enabled co-creation such as within events, but it is exploitation for sustainability, and economic benefit which is particularly relevant to 'special events' or events of a perennial nature, such as the International NW200 Motorcycle Road Racing Event.

According to Statista (2018), the revenue from the sports events segment globally is forecast to be USD 9,585m in 2018. Sports events accounted for 5.8% of the total UK national events industry in 2013 (Fletcher, 2015). When one considers that is potentially 5.8% of a £42.3 billion UK events industry as a whole (Turner, 2014), the impact of digital is of critical importance economically but is also clearly an area of social and cultural influence that is both relevant and interesting (Getz and Page, 2016). The models and frameworks created through this research process are also transferable beyond events to include most experience contexts (Pine and Gilmore, 1998). Harnessing the technology which is integrating into these experiences will undoubtedly lead to better experience design, led by a better design science which is propagated by real-time consumer data, supporting co-ideation, co-creation, and co-consumption practice (Agrawal and Rahman, 2015; Sinarta and Buhalis, 2017; Buhalis and Leung, 2018).

The contribution of this thesis, through the production of a holistic model of engagement around MTM technology enabled co-creation in the multiphasic digital event experience, has relativity to both practical and theoretical perspectives (through its usability, memorability and plausibility). It ensures an important means by which event practitioners can unpack ICTs and their inherent technological infrastructures to garner important

strategic insights around their impacts on the event experience. By doing so, it assures focus on value creation through MTM co-creation centred on enhancing the event goers' engagement satisfactorily to the benefit of the event ecosystem (Gretzel et al., 2015b). The MOBILE framework (figure 7.4) offers an excellent framing through which event management teams can strategically focus their resources toward meeting and enhancing event goers' experiences. This is more possible where ICTs are understood in a more holistic sense and explored regarding opportunities to exploit their mediating role as an MTM conduit in improved ideation and innovation based on analytics gathered (Luxford and Dickinson, 2015). It is also relevant given its facilitation through a practicable and innovative research design, utilising data extracting API's to gain insights and further co-create experience elements (Lamsfus et al., 2015). Additionally, the framework offers a wide lens through which to map the various outcomes regarding organisational and behavioural impacts and understanding of location and contexts of use (Wang et al., 2012). As a strategic toolset, the models and frameworks contained herein, ensure more clarity for organisers in terms of effective management of impacts. On 'who' by 'what', 'where', 'how' and 'when' in the delivery of technology enabled MTM co-creation (Best et al., 2018).

This knowledge supports the formation of strategic objectives through a better understanding of the implications of ICTs, particularly in the context of co-creation of the event experience (Neuhofer et al., 2015a). It is critical support for practitioners who are conscious of the impact of SD Logic and its incorporation of more empowered event participants through roles of co-creation at various stages of an event's unfolding (Goldblatt, 2014). Special events face significantly more challenging circumstances in lieu of experience personalisation, customisation and experience co-creation in comparison to smaller events or tourism experiences (Berridge, 2012a). The digital experience still offers many opportunities for experience value to resonate at an individual level in creating memorable, meaningful and satisfying outcomes (Bolan, 2014).

Consider the extension of the residual effect of the event through continued connection and integration with an event app argued by Martin and Cazarre

(2016) or the personalising potential of an app for socialising and from a relational perspective argued by Lallicic (2017). Quoting industry research by IMEX, Martin and Cazarre (2016), posit event apps as critical to communication between organisers, participants, peer to peer and for maintenance of these relationships in MTM practice. As this research has highlighted, there are circumstances where such connection can be co-destructive and thus utilising this holistic model of engagement ensures those circumstances are mitigated for (Neuhofer 2016a; Hutchins, 2016).

Critical to the success of utilising these guiding principles for enhancing experiences around ICTs is the recognition by event managers that the connected consumer offers significant value to all in the event ecosystem when appropriately understood and facilitated based on particular situational or contextual needs. This framework supports organisers in re-assessing the resources they provide to facilitate experience value creation, supporting event goer integration such that it improves experience encounters across the event ecosystem (Gretzel et al., 2015b)

This study is timely in its occurrence and has already been recognised as a pivotal influence through industry partnership and integrated research approach which has led to the award of the researcher and supervisory team and the Event Director at NW200 of the inaugural Research Impact Award at Ulster University in 2017. Selected in the category of Creativity and Culture, which according to UU (2017), is a recognition for researchers and industry partners “for research collaborations that have far-reaching impact beyond academia.”

8.4 Wider Implications of the Study

Regarding the wider implications of this study, it is clear from the introduction that the topic area SD Logic and MTM technology enabled co-creation in the context of event experiences is worthy and impactful. This is evidenced in the scale and significance of the event economy globally with Statista (2018), projecting that the event software market is set to grow from \$6.2 billion in 2016 to \$8.66 billion by 2020. The economic argument

is more easily made yet the topic of experience design and design science and its impact on a range of critical societal and cultural boundaries is also of importance (Tussyadiah, 2017a). In this reflection on the potential of impact from this study, it is important to ask questions relating to why it matters, at what scale is it most relevant and what is the likely relevance of the thesis in the future? Key to addressing these questions is unpacking the thesis at a commercial level globally, in the context of society, where it relates to policy and governance and implications of resonance for the future of Service Marketing and Management. This is also critical in the context of Event Management (Getz and Page, 2016).

The importance of both practical and theoretical perspectives has been related in previous sections regarding their immediate importance to the events industry and in terms of across the range of events, from sports and cultural to meetings and conferences (Getz, 2008a). Event management or event stakeholders alike can utilise the knowledge produced within the thesis as a means of facilitating better experiences and more engaged outcomes for event goers, whether casual and infrequent or loyal and consistent (Quinn, 2013). Although Event Management and Event Studies are the main beneficiaries of this knowledge, there is significant transferability of the models and frameworks to other sectors where technology enhanced experience has become or is becoming the central driver and focus of value creation and co-creation (Neuhofer et al., 2016b).

Globally, the rapid and rampant change which has swept through the industrialised world since the advent of ICTs is currently undergoing a significant surge in the use of advanced computing capabilities produced by AI. These as a means of leveraging the large data generated by connected customers (Buhalis and Amaranggana, 2013; Koo et al., 2016). As a result, many businesses are seeking to understand value co-creation through ICTs to support businesses in creating engaging and interactive experiences with a new breed of consumers, particularly millennials born into this age of ubiquitous connectivity (Gretzel, 2015a; Buhalis and Leung, 2018).

Societally, this study aims to support a better understanding and analysis of connectedness and consumer contexts so that a greater awareness develops around both the opportunities and challenges of the use of ICTs

and their spill-over affects (Hutchins, 2016). Consider religious events and the behavioural impacts recently highlighted by Pope Francis who “chastised priests and bishops who take pictures with their cell-phones during Mass, saying they should focus on God instead” (Reuters, 2017). This highlights the pervasiveness of the behavioural impacts of ICT and as such, being able to unpack both the positive and negative impacts of their use and assist planners in encouraging experience enhancing behaviours relevant to the locations and contexts of use (Neuhofer, 2016a).

Finally, consideration of the emerging impact of ‘smartness’ and the willingness and capacity of people to integrate through technology enabled MTM co-creation practice into destinations in search of experiences. If managed appropriately, these are beneficial for communities and stakeholders as well as driving deeper and more personalised experience encounters (Holloway and Brown, 2013). There has been a significant surge in the development of Smart Tourism and Smart City projects over recent years. These are driving interest in deeper integration and connectivity within the ecosystems at destination levels, which arguably form part of the multiphase digital event experience (Lamsfus et al., 2015; Koo et al., 2016; Buhalis and Leung, 2018). Wearable technologies such as VR headsets, voice recognition earpieces, smart glasses or watches are beginning to penetrate the experiences of event participants with products and services targeting convenience, personalisation and creativity (Robertson et al., 2015; Tussyadiah, 2018). Utilising the models and frameworks produced in this thesis in future mapping exercises, ensure that think tanks and policymakers can develop a better understanding of their current and future technology horizons and plan for society’s benefit as opposed to a solely economic argument (Hutchins, 2016; Neuhofer, 2017).

This study has significant potential to support educational needs given the simple and elegant models which incorporate acronyms and other learning devices to make them accessible, engaging and memorable (Liburd and Hjalager, 2010). Additionally, with the expanding increase in the use of ICTs to improve learning experiences and engage participants as co-creators of their educational outcomes in more participative ways, this study offers useful guidance for those managing and delivering experiences. It can do

so by assisting teams to strategically map out their delivery in a manner as to harness the operant/operand resources of which education consumers are willing to integrate (Vargo and Lusch, 2004).

Finally, the study can impact on the emerging field of design science, particularly on experience design and as a means of focusing designers in conceptualising projects that incorporate explorative, generative and evaluative practice (Tussyadiah, 2017a). Particularly projects which seek to build out from the individual, connecting to their potential and tapping into the innate capability, contexts and locations of their being to deepen and expand conscious human connectedness through better practice incorporating ICTs in enabling MTM co-creation (Vesterbeek, 2014).

8.5 Study Limitations

Critical to a successful PhD study is time taken to review and reflect upon the research process. Limitations and challenges relating to the study design and research approach were discussed in some detail earlier in chapter four (Methodology) and with a specific focus on particularities of each element of the study in Section 4.10 which focused on 'Considerations and limitations of Mixed Methods Phenomenological Research'. Further to that assessment, it is important to evaluate the limitations further in light of having implemented the research design, gathered data and created an analysis (Tracy, 2013). This experience reflects that presented by Marshall and Rossman (1999, p.42) who posit that "there is no such thing as a perfectly designed study."

Having discussed the boundaries of what the study can and cannot achieve in the methodology section, this section will now focus on unpacking the specifics of limitations in further detail below and include:

- Limitations of mixed methods study and consideration of MMPR;
- Implications and limitations related to Experience and ICTs;
- Quantitative Complementarity;
- Issues Related to Time and Management.

8.5.1 Limitations of The Mixed Method Study and Consideration of MMPR

Although a relatively under-explored topic, MTM co-creation enabled by technology in the event experience phenomenon lends itself to mixed methods research given the nature of digital and the ability to gather data and analytics as a means of further exploring impact (Gyimóthy and Larsen, 2015). Indeed, the reality of study was that the design embraced the potential to explore qualitative and quantitative data in a way as to provide more weighting to the appropriate measure where relevant (Creswell, 2003). In this instance the design favoured can be structurally understood as an embedded mixed-methods design which supported qualitative analysis as the leading measure and was supported by data gathered through a quantitative pre and post-intervention survey to assess impact (Sweeney and Goldblatt, 2016).

The novelty and relative lack of specific empirical study of the emerging experience phenomena were researched through qualitative means and was subsequently developed through statistical testing of the emerging constructs of analysis (see appendix 24). Phenomenology is considered as an ideal framework to work within an interpretative paradigm, and as such, the author felt it the most appropriate to generate insights of the lived experience of event fans in this context (Smith et al., 2009).

Despite these clear advantages in application, the phenomenological approach is considered by some to miss the social context of these lived experiences (Langridge and Ahern, 2003). Although this paradigm is useful in generating structures of such lived experiences, it can be considered in its raw (qualitative alone) form as unsuitable for generalisation of the structures observed to wider contexts (Marshall and Rossman, 2009). The last criticism of phenomenology as an approach of study in and of itself is that it cannot claim to know which phenomenon is of more importance to individuals or groups (Ziakas and Boukas, 2014). Indeed, further limitations of the study are now discussed in relation to the experience, and the ICTs explored.

8.5.2 Implications and limitations Related to Experience and ICTs

The study focused on apps which were developed and launched from a platform which supports a content management system for smartphone applications and mobile responsive websites, created by BiznessApps.com. The use of apps from two events which were built on the same platform went some way to assuring credibility in the comparative elements of the study as measured through the embedded quantitative component. In doing so, a reasoned comparison of the efficiency and effectiveness of the mobile applications could be monitored and measured more effectively through the analytics provided by the content management system as well as through the publisher portals on iTunes and Google Play. As no significant issues were noted on the occasions of the events across both years, technical issues due to varying platforms could be more easily eliminated regarding data collected (Tracy, 2013).

There was, however, a difference in what users sought from the experience of their applications, based mostly on the contexts of use. Although both are sports events, one is more information intensive given that racing sets up digital experience participants to seek results and outcomes on a more frequent basis (hourly versus daily). Additionally, the groups of app users varied in their use due to the nature of their experience with one group playing a sport whilst the others spectated which would reduce the use of the app significantly at key times 'during the event' for the former group (Luxford and Dickinson, 2015).

Finally, the age and demographic profiles of both groups varied in that the sports participants in Event 2 were all male and older and the spectators were approximately 65% male and younger. Whilst this offered some difference in terms of subjectivity, the variables measured around satisfaction, enhanced experience, and willingness to pay offered useful comparative opportunity across two years of event app use by different users on each occasion (Sweeney and Goldblatt, 2016).

8.5.3 Quantitative Complementarity

Rather than selecting only a qualitative perspective, the use of a mixed methods design aimed to support phenomenological findings through quantitative measures which would offer complementarity in theory development and analysis, through testing outcomes across time, pre and post intervention (Creswell, 2013). The critical challenge of adopting this approach was, therefore, the construct validity of the measures and their actual complementarity to the phenomenological underpinnings.

Limitations were existent in one data set in particular due to a reduced number of respondents. This challenge reduced the availability of analysis to the use of non-parametric tests and in some cases, where certain rules were not met, more exacting tests such as the Fisher's Exact Test had to be carried out (Horbel et al., 2016).

As has been highlighted in the methodology chapter, non-parametric tests make less stringent demands of the data and are therefore the best applicable solution in cases where the sample size does not facilitate normal theory tests (Pallant, 2016). Non-parametric tests main disadvantage is about the fact that it is more difficult to make quantitative statements relating to the actual difference between populations. However, with software like SPSS, it is possible to estimate some issues of confidence and indices which gives good reason to see significant support for their validity and reliability in such use cases (Pallant, 2016).

8.5.4 Management and Resource Implications

The critical challenge of utilising a mixed methods study is in the requirement to manage multiple research paradigms (Sweeney and Goldblatt, 2016). Mixed methods research cannot be compared simply regarding commitment and management time to an individual research design which is only qualitative or quantitative. This is due to the nature of time required to professionally conduct and analyse the data from both paradigmatic perspectives before bringing the data together in whichever

specific mixed method research design has been employed (Creswell, 2013).

The challenge of preparation of instrumentation, agreement on ethical approval for study and development of appropriate relationships and study locations for the delivery of the various aspects of the entire research process was one of the most challenging realities of the design (Tracy, 2013). The time taken to learn and prepare for each process was challenging for an individual researcher but was mitigated through the support of three supervisors and an attentive support network of fellow academics. The cost of the study was also significantly impacted given that several forms of software were required to support data collection and analysis and training in the use of each was also necessary (Tracy, 2013).

Thus, the expense of carrying out a mixed methods research design is also important to countenance at the outset. In this instance, the compatibility of using both methods and the additional insights garnered produced more clarity on the impact of the intervention as well as leveraging the strengths of each paradigm in a pragmatic way as to take full advantage of the non-overlapping complementarity of the data collected and insights gained (Creswell, 2013). It has to be noted that there is significant discourse contending that methods cannot be mixed (Creswell, 2013) and although the author is growing in knowledge of alternative perspectives of adequacy and acknowledges these challenges, the notary responsibility of presenting 'what' study was delivered is of primacy in relating this thesis and the debate of the adequacy of mixing methods is ongoing.

8.6 Future Research

This research process has developed significant new experience models, with relevance to Service Marketing and Management and in the context of the event experience and as such, in light of the limitations outlined previously, it has the potential to inspire a range of new research into the SD Logic perspectives of co-creation enabled through ICTs. In providing this initial conceptualisation of the Smart Event Experience, there is also scope for further empirical exploration of actual smart experiences in other contexts of use, particularly across the spectrum of event types, which

constitute special events (Getz, 2008a). These could include cultural celebrations, sporting events such as the the World Cup, Olympic Games, global conferences and other arts and entertainment events of significant scale. It would also be interesting to look at events which are aligning with 'smartness' more quickly due to their embeddedness in the use of particular technologies. Corporate events, where large amounts of data on participants are already existent within an ecosystem, can be used in much more engaging ways for personalisation, to ease processes of participation and for people to mediate their experiences. This can be tailored to their preference within the designated experience-scape (Benkendorff and Pearce, 2012).

To this end, the further study through the direction of this thesis is to expand the findings through the theory developed as well as to explore new aspects of a digital experience such as the exciting area of artificial intelligence incorporating through ICTs, as well as technological developments in augmented reality (AR) and virtual reality (VR). This will be of particular significance as these begin to emerge as experience elements in the context of the various stages of the event experience and through the lens of SD Logic (Stockinger, 2015; Buhalis and Leung, 2018).

Focus on further exploring the roles of the ICTs and technologies through the MOBILE conceptual framework would provide a rich and interesting agenda from which industry and academia could capitalise. It is a model of elegance and simplicity and as such offers significant transferability in its application now and in the future (Bustard et al., 2016).

As a means of further unpacking the digital event experience phenomenon and to compliment this mixed methods study, further quantitative assessment could be carried out. One avenue is to identify typologies of digital event experience participant which could be identified, providing important information for practice and theory in positioning people at the heart of experience and leveraging this phenomenological study's rich and thick description of critical experience values and outcomes (Getz and Page, 2016).

Finally, the future of event experiences will undoubtedly continue to be a place of experimentation, where practitioners seek to create the memorable and the meaningful, with potential to enhance through MTM co-creation (Benkendorff and Pearce, 2012). The focus on using ICTs as a means of connecting people with and developing extraordinary experiences is an obvious opportunity and one which the industry is only beginning to fully embrace (Hudson et al., 2015). The perspective of 'over-technology' and the endemic use of ICTs is a further aspect critical to co-creation and co-destruction of experiences in this context and as such, will require focused and critical analysis to assure the best outcomes for participation in MTM co-creation – whether technophile or technophobe (Neuhofer, 2016a). An accommodation is realisable, and the reality is that in this time of personalisation, communication of what an experience is and meeting the expectation of specific fans in that outcome, is central to the economic impact of events and competitive experience development (Koo et al., 2016).

8.7 Reflection on the Process

In reflecting on the research process and its myriad complexities and intricacies, the author has sought to provide a sincere and open perspective on issues, biases and inclinations. This was to allow the experience of the practitioner to be understood and the research opportunity and focus to be presented clearly and unequivocally (Tracy, 2013). Utilising data management techniques (see appendix 17 and 18) for securing data, research administration and record keeping purposes, such as those outlined by Miles et al. (2013), takes commitment and time but ultimately impacts positively on the process over the period of study and assures an auditable practice.

Participation in conferences and preparation for presentations as well as submission to proceedings was an area of significant growth in this candidacy. During the three years of full-time study, a total of four conferences were attended and the opportunity to present early findings and garner feedback were critical to the ongoing development of this thesis. The knowledge gained in viewing researcher approaches and research designs

as well as in the various paradigmatic approaches to the study of Tourism and Events was invaluable in development.

In carrying out the overall design, the management of time and the maintenance of energy was a constant challenge as was the niggling voice of the imposter, which often echoes at the most inappropriate moments of one's PhD Journey. Being grateful for the support of colleagues and research associates locally as well as those engaged through global networks cannot be understated. It often manifests in the shared tweets or the cries of mutual exacerbation that only a fellow journeyperson dealing with the myriad issues of the complex world of the academy would understand. The constant connection that ICTs provide the modern researcher is something of a double-edged sword but has been invaluable when care is taken to manage one's time, and on following solid social media advice, a communications network one can take heart from.

In retrospect, the challenge of personal development and the moments of discomfort when one pushes beyond the comfort zone and into the areas of being a novice again, led to the most beneficial outcomes from the research process. Utilising multiple methods, regardless of one's perspective of the paradigmatic wars, is an important means by which to build a wider and more integrated research skill-set which allows for better understanding of the research of academic peers and the potential to begin to design enquiries beyond a narrow focus of one paradigm or another. As in life, variety is the spice of research and researchers, like chefs, should use this spice to improve the recipe, not to 'over-cook' the subject to its detriment.

8.8 Concluding Remarks

The pace of change evident in the adoption of ICTs into our lived experience and the life impacts these technologies have is still unfolding in terms of knowledge. A pattern of continued trust and reliance on mobile technology is evidently escalating and inevitable, given the utility, embeddedness and connectedness they facilitate within our lived experience of both work and play. The challenges presented due to the varying levels of use and issues of privacy, interoperability and access will continue to be critical features of the success or failure of technology led experience touchpoints. Critically,

a precipice has been passed in more recent times regarding connectivity with a near-ubiquitous availability in most user contexts. This is a profound moment and one which brings demonstrable benefits but also significant societal and individual dilemma as the 'always on' culture is not as cohesive and creative as was once presented.

Being the first to explore, experience and evaluate the many facets of technology enabled MTM co-creation of the digital event experience has been positive. From a Service Marketing and Management perspective, and in the context of this research process, it is still important to highlight that little has changed in the nature of seeking and the drive to participate in co-creation contexts such as events. This is the force which brings people together collectively, or which sets individuals on a path to find and explore new experiences. Technology is evolving as a significant conduit and often (but not always) support to such event connectedness, through social media platforms in particular. Through this study there is recognition that more assessment of technology's flipside is much needed. In all contexts but with ever more immersive experiences being developed, and the drive for novelty and newness even more pressing, it still falls on academics and practitioners to find the human experience at the heart of all that is sought by those seekers who provide the lifeblood of events.

Thus, as it has been experienced through this research process, it is critical in the study of technology enabled co-creation to blend new and emerging studies of knowledge to amalgamate new perspectives of the thinking, doing and feeling aspects of the human condition – always the core phenomenon of experience. Placing these core elements of experience within the wider contexts of community, culture, consumerism and creativity For Service Marketing and Management, is the opportunity and challenge of research in such a rapidly changing technological period. This has been one of the most significant challenges of the process.

In presenting technology enabled MTM co-creation in the context of the digital event experience and by offering a holistic model of engagement which includes the Digital Event Diagnostic and Development (DEEDD) Framework, The Model of Digital Event Experience and the MOBILE conceptual framework as the key contributions of this study, new knowledge

and contribution are supported. Further understanding to the means by which to study co-creation and through which practitioners can embed experience seekers and their unique resources (operant/operand), within a planned and strategic framework are harnessed. This approach seeks to deliver great experiences through the SD Logic paradigm and with focus on core phenomenon of event experience, will evidently be achieved through people, places and processes – providing ever more personalised outcomes, often supported by smart and social technologies.

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Appendices

Appendix 1:

Studies in Event Experience – From Literature Review (46)

Author(s) Year	Study Aim/Objective	Methodology/Method
Getz 1989;	Defining Events – foundational paper in relating to experience phenomenon	Qualitative: Conceptual Paper;
Berridge, 2012	Deepen understanding of nature of how a planned event experience is experienced vs the aims of organisers	A Case Study approach
Getz and Page 2015	Developing a framework for understanding and creating knowledge about events.	Literature review providing research themes
Morgan 2007	Understanding the event experience	Qualitative: Netnography
Wood 2009	Critical evaluation of experiential marketing techniques.	Qual; literature review; semi structured interviews
Filo et al. 2009	Exploring the meaning of event participation through the Psychological Continuum Model	Qualitative: semi-structured interviews
Holst Kjaer, 2011	Experience - Design & Meaning	Qualitative Methods
Hoksbergen and Insch, 2016	Understanding of engagement with social media page (FB) and perception of the platform for co-creation.	In-depth interviews
Kinnunen and Haahti, 2015	To unfold factors anchored in visitors' experiences possibly determinant of the success or failure of cultural festivals.	Experience descriptions, interviews and empathy-based stories
Jeffries and Lepp, 2012	To explore extraordinary experiences in both novel and familiar settings	Written descriptions of extraordinary experience
Rihova, 2011; 2013	Event Experience and Co-creation of value: In context and through communitas	Qualitative – Literature & Practice; Interviews
Robertson et al., 2015	To develop a process for prototyping experience options and opportunities for festivals of the future	Trend Analysis Scenarios and Science Fiction methodology
Rossmann and Ellis, 2012	Explanatory note on experiences in special issue.	Explanatory note
Ziakas & Boukas, 2013; 2014	Phenomenologically explore attached meanings - valued characteristics of event dest.; Development of a research framework for the Phenomenological study of experience in Event Studies	Unstructured in-depth phenomenological interviews; Literature Review – main streams of phenomenological research
Luxford & Dickinson 2015	Explore the role of an event apps in consumer experience	Qualitative - Focus groups & content analysis
Lee et al. 2016	Multidiscipline analysis of events characteristics. Provide spaces for the cocreation of values, liminality, communitas, flow experiences & authenticity	Qualitative: Event experience – lit review
Mannell and Iso-Ahola, 1987	Examines the leisure and tourist experience from three perspectives.	Seminal conceptual paper
Park and Park, 2016	Research Trends in Event Management	Literature review
Pilcher and Eade, 2016	To identify a relationship between visitor demographics and visitor motivation in relation to events	Semi-structured interviews
Shipway et al., 2016	The development of model of understanding for sport event tourism experiences	Semi-structured interviews
Hall et al. 2011	To provide a holistic understanding of the pre-event & post-event factors influencing attendance and event satisfaction	Quantitative: pre and post event survey

Bouchet et al 2011	Based on event experience - create and test tool for identifying different types of sport spectators	Quantitative – questionnaire: Sporting Event Experience Search Scale (SEES)
Ayob et al. 2013	With a post-consumption focus, to examine mediating effects of event experience.	Quantitative – survey data relating to satisfaction, intention
Duran and Hamarat, 2014	Underlying motivational dimensions of visitors attending events	Self-administered survey
Theodorakis et al. 2014	Examines how sport event Serv-qual operationalized and outcome factors that influence overall satisfaction	Quant; event experience; survey; warrant
Kruger and Saayman, 2015	Examine gender differences in visiting an event based on demographics, behavioural variables, and motivational factors	Questionnaire and t-tests, frequency tables and chi-square
Andersson & Armbrecht 2014a; 2014b	To develop and test a model explaining the value of event experiences; define direct & indirect use-value and to suggest and test an explanatory model (Triple ex)	Quantitative – visitor survey – building explanatory model; Quantitative –festival survey
Du et al. 2015	Investigation of performance, achievement on experience satisfaction	Quantitative: Survey of participant satisfaction
Wong et al. 2015	Examines motives and purpose in loyalty contexts across spectator type relative to involvement and experience	Quantitative -survey of event experience; warrant
Horbel et al. 2016	Measure value co-creation in context	Quantitative – Structural Modeling
Wang & Cole 2016	Test behavioural differences across experience stages - search patterns, spending behaviours, and satisfaction	Quantitative - event experience - satisfaction
Couto et al. 2016	Identify key product attributes making event enjoyable	Quantitative – in-person questionnaire
Yoshida et al., 2016	To create a multi-dimensional conceptualisation of innovative sport consumption experiences	Quantitative – questionnaires : factor analyses and modeling
Kim & Jang 2016	research examining influence of both internal & external factors on tourists' memory retrieval of event experience	Quantitative methods: Survey and Tests
De Geus et al. 2016	Experience Meaning & Measurement	Quantitative Methods
Kaplanidou, & Vogt 2010	In a sport event context, explore event experience meaning and develop a scale for that meaning	Mixed methods: Focus groups and survey
Wong et al. 2015	explore value equity & service quality, price, and convenience influence on event experience satisfaction	Mixed methods: Survey & Delphi
Jonson et al. 2015	Exploration of 'play' reflected through Bateson's play frame and flow theory.	Mixed Methods study: Memory work and survey
Sweeney & Goldblatt 2016;	Satisfaction and wellbeing outcomes of attendees	Mixed Methods
Emery et al. 2016	Exploring critical incidents and memorable customer experiences	Mixed methods: diaries, interviews, survey
Lee & Min 2016	Explore experiential value (EV), the quality antecedents of EV & the moderating effects of EV on relationships between experience quality dimensions & satisfaction	Mixed methods; survey; in-depth interviews
Nordvall et al. 2014	Explore interactions & influence on experience satisfaction – c2c interaction	Mixed methods – questionnaire & interviews
Emery et al. 2016	Exploratory study of critical incidents, emotion and value	Mixed methods -diaries; interviews; survey;

Appendix 2:

Total Page Followers as of Today: 86,537



BENCHMARK
Compare your average performance over time.
Total Page Followers

Your Fans | Your Followers | People Reached | People Engaged

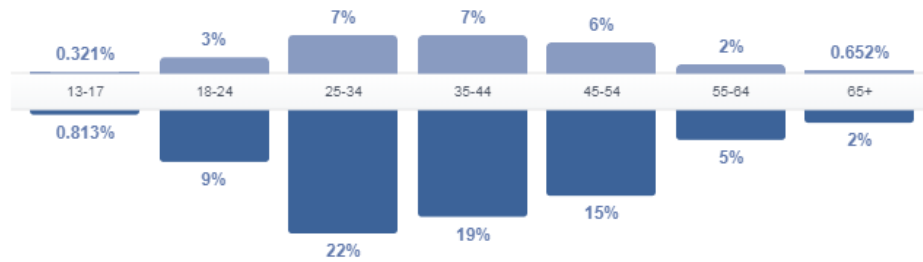
Aggregated demographic data about the people who like your Page based on the age and gender information they provide in their user profiles.

Women

25%
Your Fans

Men

74%
Your Fans



Country	Your Fans	City	Your Fans	Language	Your Fans
United Kingdom	56,302	London, England, Unit...	4,113	English (UK)	47,652
Ireland	7,649	Belfast, Northern Irean...	3,385	English (US)	25,036
Italy	2,565	Dublin, Ireland	2,493	Italian	2,583
France	2,067	Coleraine, Northern Irel...	2,128	French (France)	2,425
United States of America	1,986	Ballymena, Northern Ir...	1,724	German	2,197
Australia	1,950	Ballymoney, Northern I...	1,246	Spanish	1,208
Spain	1,763	Derry, Northern Ireland...	1,172	Spanish (Spain)	1,198
Germany	1,761	Bangor, Northern Irelan...	763	Dutch	942
Isle of Man	1,069	Douglas, Isle Of Man	734	Portuguese (Brazil)	801
Brazil	811	Limavady, Northern Irel...	715	Polish	502
Netherlands	767	Omagh, Northern Irela...	637	Portuguese (Portugal)	399
India	676	Armagh, Northern Irela...	622	Thai	263
Belgium	521	Antrim, Northern Irelan...	590	Indonesian	214
Canada	433	Manchester, England, ...	588	Czech	192
New Zealand	413	Portstewart, Northern Ir...	577	Hungarian	183

Portugal	381	Cookstown, Northern Ir...	563	Greek	158
Malaysia	348	Dungannon, Northern I...	563	Arabic	116
Austria	343	Larne, Northern Ireland...	561	Traditional Chinese (Ta...	115
Switzerland	338	Newry, Northern Irelan...	544	Croatian	100
Thailand	331	Portrush, Northern Irel...	535	Swedish	99
Poland	296	Portadown, Northern Ir...	500	Malay	93
Indonesia	256	Carrickfergus, Northern...	459	Norwegian (Bokmal)	89
Argentina	252	Kent, England, United ...	454	Japanese	85
South Africa	210	Ballycastle, Northern Ir...	434	Romanian	77
Mexico	206	Newtownards, Norther...	429	Bulgarian	76
Greece	191	Craigavon, Northern Ir...	423	Turkish	73
Czech Republic	181	Banbridge, Northern Ir...	409	Dutch (Belgium)	70
Philippines	163	Cork, County Cork, Irel...	404	Catalan	70
Hungary	156	Leeds, England, United...	370	Danish	69
Colombia	136	Paris, Île-de-France, Fr...	348	Slovenian	69
Norway	135	Milan, Lombardia, Italy	337	Vietnamese	58
Sweden	132	Ballyclare, Northern Ire...	332	Slovak	53
Pakistan	128	Edinburgh, Scotland, U...	303	English (Pirate)	51
Taiwan	113	Enniskillen, Northern Ir...	300	Serbian	47
Romania	105	Lurgan, Northern Irelan...	291	Finnish	47
Japan	102	Magherafelt, Northern I...	289	Lithuanian	36
Croatia	93	Sydney, NSW, Australia	278	Russian	30
United Arab Emirates	89	Liverpool, England, Uni...	274	French (Canada)	26
Algeria	88	Newcastle upon Tyne, ...	272	Simplified Chinese (Chi...	26
Slovenia	84	Perth, WA, Australia	259	Traditional Chinese (H...	21
Turkey	79	Galway, Ireland	252	Albanian	19
Bulgaria	79	Downpatrick, Northern ...	237	Galician	18
Vietnam	76	Ballynahinch, Northern ...	236	Persian	17
Denmark	73	Birmingham, England, ...	233	English (India)	13
Finland	66	Melbourne, VIC, Australia	225	Korean	13

EXECUTIVE SUMMARY

This report presents the key findings from research undertaken at the 2017 NW200 hosted from the 7th to the 13th May with a sample of 1,219 spectators. The surveys undertaken at the 2017 NW200 outlined that the event is an important part of the Causeway Coast and Glens sporting calendar, both in terms of economic impact activity, economic importance and civic pride. The economic impact analysis in this report focuses on direct visitor expenditure from spectators only and provides an 'at least' figure. The overall economic impact figure is likely to be higher due to the expenditure activity of those people in the other groups (e.g. riders, team staff, volunteers, event officials, media etc.) being omitted. In addition, the organisational expenditure made by the event organisers is **not** part of this analysis.

ECONOMIC IMPACT OF SPECTATORS

The direct economic impact attributable to event-specific spectators to NW200 was **£9.80m** across the week of the event, of which **£9.10m** was spent in the Portrush, Portstewart and Coleraine area (i.e. in the direct vicinity of the race route). In addition to visitor expenditure, local residents living in the Causeway Coast and Glens spent a further of **£0.28m**, which although not part of the economic impact calculation, is part of the wider economic importance calculation.

PERCEPTIONS

Overall, spectators reported high levels of civic pride regarding the NW200 being held in the local area. For example, spectators were proud that the event was taking place in the Causeway Coast and Glens area (86%); the vast majority of respondents thought the NW200 presents a positive image of the Causeway Coast and Glens area (96%); and 92% felt that the Causeway Coast & Glens Council should continue to host and support major sporting events. The majority of visitors to the area would also return to the area for another NW200 in the future (97%). In addition, 95% of the sample rated the Causeway Coast & Glens area as a "very good" or "good" host venue for major events, and the overall rating of the Causeway Coast & Glens area as a visitor destination was 95% "good/very good".

CONCLUDING COMMENTS

Overall, the 2017 NW200 was a very positive event for the Causeway Coast and Glens area, both in terms of economic impact and perceptions of the event. High approximated spectator attendances from visitors, very positive attendee feedback about the event and a direct economic impact of **£9.80m** from spectators provide an evidence base to suggest that the NW200 had a favourable impact on the Causeway Coast and Glens area.

Appendix 4.

Profile Pictures 3 of 42

Tag Photo Options Share Send Like

Ulster University

John Bustard
March 24 · Edited · 6

Researcher and #CausewayCoast native - John Bustard who is examining online collaboration in an Event Tourism Context focusing on Causeway Coast Events — at Ulster University at Coleraine.

Tag Photo Edit

Like Comment Share
Tracy McAllister, David Christie and 94 others

June Roxborough Matthew McAllister
Like · Reply · March 24 at 8:54pm
John Bustard replied · 1 Reply

Write a comment...

Sponsored

Create Ad

Adroll
The State of Marketing Attribution
Download the Report here!
www.adroll.com
New research highlights the state of marketing attribution in the UK, France & Germany.

Appendix 5.

6 Question - NW200 App Experience Expectation Projective Enquiry

Please answer the following 6 questions to assist in understanding expectations of event app users at international sporting events.

This poll is part of a research project by Ulster University PhD candidate, John Bustard, focusing on the event experience for app users. For more details or any questions relating to the research project, please contact Bustard-J@email.ulster.ac.uk

[Get Started](#)

This poll is in no way sponsored or administered by Facebook. The information you provide will only be used for this poll's purposes. This poll is part of a research project by Ulster University PhD candidate, John Bustard, focusing on the event experience for app users. For more details or any questions relating to the research project, please contact Bustard-J@email.ulster.ac.uk

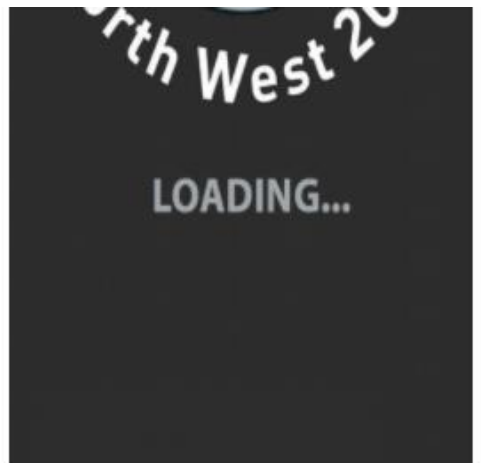
6 Question - NW200 App Experience Expectation Projective Enquiry

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How well do you expect an app to load at the event?

Please choose from the scale of 1 to 5. 1 being 'poor' and 5 being 'excellent'

Poor Excellent

1	2	3	4	5
---	---	---	---	---

[Continue](#)

6 Question - NW200 App Experience Expectation Projective Enquiry



LOADING...

How well do you expect an app to load at the event?

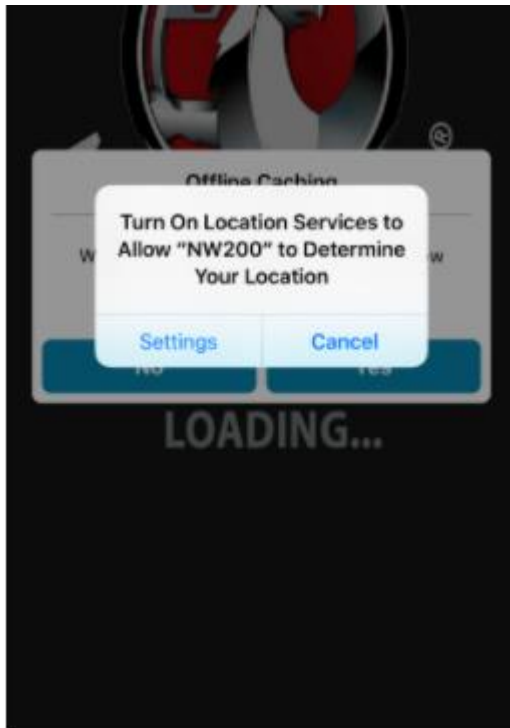
Please choose from the scale of 1 to 5. 1 being 'poor' and 5 being 'excellent'

Poor Excellent

1	2	3	4	5
---	---	---	---	---

Continue

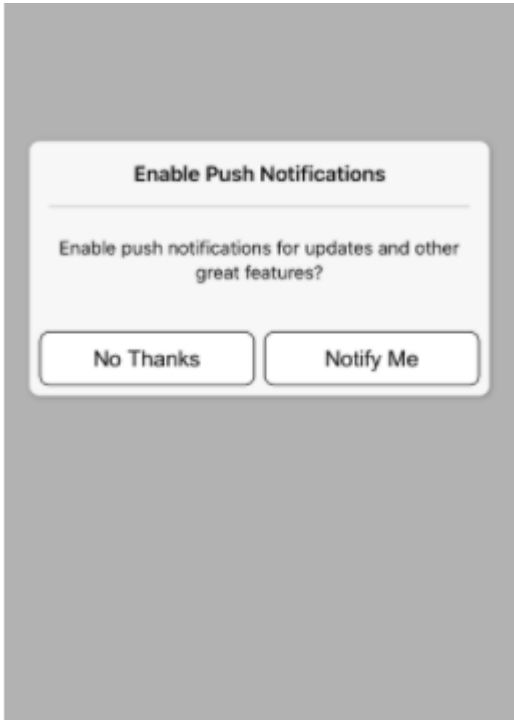
14% completed



What opportunities and/or challenges do you perceive 'location services' will offer your event experience?

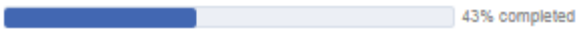
Continue

29% completed



What opportunities and/or challenges do you perceive 'push notifications' will offer your event experience?

Continue



6 Question - NW200 App Experience Expectation Projective Enquiry



Please log in with your social account for better experience with social features.

0 Messages 0 Fan Wall Posts 0 Shares 0 Rewards

Accounts

My Comments



Facebook

Connect



Twitter

Connect

What opportunities and/or challenges do you perceive enabling 'social features' will offer your event experience?

Continue

57% completed

This poll is in no way sponsored or administered by Facebook. The information you provide will only be used for this poll's purposes. This poll is part of a research project by Ulster University PhD candidate, John Bustard, focusing on the event experience for app users. For more details or any questions relating to the research project, please contact Bustard-J@email.ulster.ac.uk

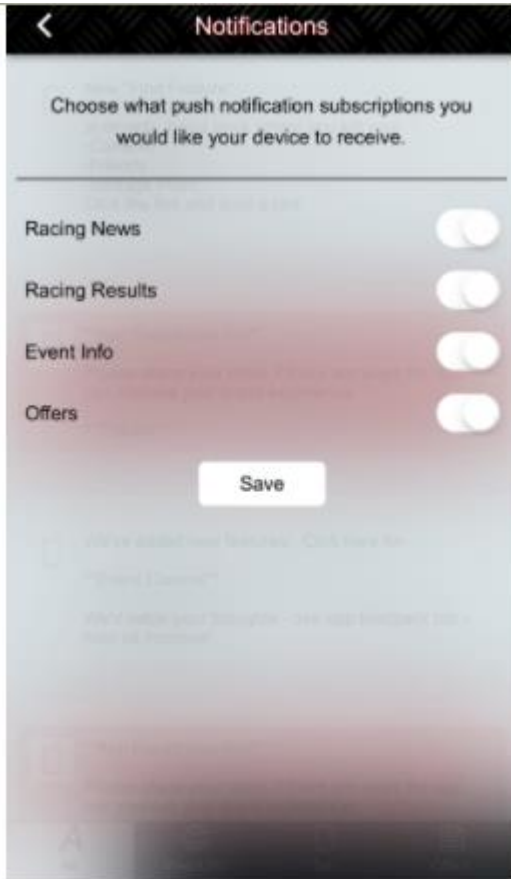
6 Question - NW200 App Experience Expectation Projective Enquiry



Please rank, in order of preference, the features that would most improve your event experience. Please rank in order of preference from 1 being most likely to improve the event experience and 10 being least likely to improve.

- ↕ News
- ↕ Map
- ↕ Results
- ↕ Events
- ↕ Communications
- ↕ Offers
- ↕ Feedback
- ↕ Social Media
- ↕ Tickets
- ↕ Experiences

[Continue](#)



What opportunities and/or challenges would you perceive from sharing your Facebook profile information to make your event experience more personalised?

Continue

 86% completed

Please select your appropriate age and gender information below:

- Under 18 male
- Under 18 female
- 18-25 male
- 18-25 female
- 26-34 male
- 26-34 female
- 35-44 male
- 35-44 female
- 45-54 male
- 45-54 female
- 55-64 male
- 55-64 female
- 65+ male
- 65+ female

Continue

 100% completed

This poll is in no way sponsored or administered by Facebook. The information you provide will only be used for this poll's purposes. This poll is part of a research project by Ulster University PhD candidate, John Bustard, focusing on the event experience for app users. For more details or any questions relating to the research project, please contact Bustard-J@email.ulster.ac.uk

Appendix 6.

NVivo - Projective Reflective Analysis

The screenshot displays the NVivo software interface. The top navigation bar includes FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, and VIEW. The left sidebar shows a tree view of Nodes, including Sources, Nodes, Classifications, Collections, Queries, Reports, Maps, and Folders. The main window shows a list of DEEDD Elements with the following columns: Name, Sources, References, Created On, Created By, Modified On, and Modified By. The list contains 14 items, with the first item 'Information' selected.

Name	Sources	References	Created On	Created By	Modified On	Modified By
Information	2	257	28/03/2017 21:39	JRT	13/10/2016 12:16	JRT
Integration	2	160	28/03/2017 21:39	JRT	13/10/2016 12:16	JRT
Usage and Usability enabler	1	88	28/03/2017 21:39	JRT	07/09/2016 08:42	JRT
DEEDD Challenges	1	84	28/03/2017 21:39	JRT	07/09/2016 08:42	JRT
Entertainment	2	76	28/03/2017 21:39	JRT	29/03/2017 14:42	JRT
Usage Barriers	1	60	28/03/2017 21:39	JRT	13/10/2016 12:16	JRT
User driven ideas	2	42	28/03/2017 21:39	JRT	07/09/2016 08:39	JRT
Telecommunications Barriers	1	28	28/03/2017 21:39	JRT	19/08/2016 11:30	JRT
Privacy	1	28	28/03/2017 21:39	JRT	13/10/2016 12:16	JRT
Identity	1	12	28/03/2017 21:39	JRT	13/10/2016 12:16	JRT
Hardware Barriers	1	8	28/03/2017 21:39	JRT	19/08/2016 11:14	JRT
Software Barriers	1	5	28/03/2017 21:39	JRT	19/08/2016 11:18	JRT
Software enabler	1	4	28/03/2017 21:39	JRT	19/08/2016 11:45	JRT
To Code	0	0	28/03/2017 21:39	JRT	07/09/2016 08:43	JRT

Projective Reflective Analysis - Code book for DEEDD Process

Name	Description
DEEDD Challenges	Any contention to the ability of digital netnography to produce adequate results - particularly where it could reduce someone's event experience (pre, during and post)
Entertainment	Engaging through mobile device use in order to amuse oneself or others
Hardware Barriers	Battery deficiencies, lack of smartphone, use of outdated ICTs device and screen size (from enabler barrier model, Neuhofer, 2015)
Identity	Where participants are seeking to maintain or develop personal status as well as through friends and family via online group participation
Information	Where participants use mobile and ICTs to receive information about the event or event related supports
Integration	Where participants seek to integrate with the event in terms of location and context
Privacy	Any situation whereby the event technology is perceived to infringe on personal privacy
Software Barriers	Software Barriers - Slow inconsistent functionalities, information and content problems, usability problems, inefficiency, inaccuracy, difficulty of use, limited usefulness.
Software enabler	Software Enablers – Easy and fast access to information. Personalisable, persuasive and push info with easy availability. Potentially intelligent and predictive.
Telecommunications Barriers	Telecommunications Barriers include technological insufficiencies, lack of internet connection, lack of network infrastructure, lack of WiFi provision, financial burden.
Usage and Usability enabler	Effortless usage and fast track performance, good usability of applications, ease of information access, ease and joy of use, usefulness (From enabler barrier model, Neuhofer, 2015)
Usage Barriers	Physical barriers, social and experience barriers, restricted physical immersion, physical effort
User driven ideas	Text added where 'other' was selected – selection of informed ideas on features within the event app.

Appendix 7.

Secret Facebook Focus Groups (SFFG)

The screenshot shows the Facebook page for 'The International North West 200'. The page header includes navigation options: Page, Messages, Notifications (10), Insights, and Publishing Tools. The profile picture is a logo with a bird and the text 'North West 200'. The page name is 'The International North West 200' with the handle '@northwest200'. A 'This Week' summary shows 22,422 Post Reach, 1 Website Click, and 6 Sign Up. A post from John Bustard, published 1 minute ago, thanks 30 participants for signing up to an online app focus group and states that recruitment is now closed. It includes a link to a poll: <https://poll.fbapp.io/app-event-satisfaction-nps>. Below the text is a large blue banner with a yellow circle containing a clipboard icon and the text 'Poll Click to answer!'. Underneath the banner is a '2 minute survey' titled 'Your Satisfaction With the NW200 Event App'. The survey text asks for scores/answers to help understand the event app experience. It has reached 1,650 people and has a 'Boost Post' button. A comment from John Anderson is visible at the bottom.

Recruitment Post

Recruitment Closed

The screenshot shows a Facebook group page for 'Pilot Focus Group: App Experience'. The group is a secret group, as indicated by the lock icon and the text 'Secret Group'. The cover photo features a banner for 'RACE WEEK Festival' from 'Portrush Portstewart Coleraine Ballymoney' on '9th-16th May'. The group name 'Pilot Focus Group: App Experience' is overlaid on the cover photo. The page shows a notification from John Bustard adding the user to the group. Below the cover photo are tabs for Discussion, Members, Events, Photos, and Files. The 'Discussion' tab is active, showing a 'Write Post' box with a 'Write something...' placeholder. There are buttons for 'Write Post', 'Add Photo / Video', 'Create Poll', and 'More'. On the right side, there is an 'ADD MEMBERS' section with a search box and a 'MEMBERS' list showing 3 members (1 new). The URL at the bottom is <https://www.facebook.com/photo.php?fbid=10154678057754369&set=gm.167195753684701&type=3>. The Windows taskbar is visible at the bottom of the browser window.

Landing Page – SFFG

Pilot Focus Group: App Experience

RACE WEEK Festival
Portrush Portstewart Coleraine Ballymoney
9th-16th May

Pilot Focus Group: App Experience
Secret Group

Discussion Members Events Photos Files

John Bustard
4 hrs · Coleraine

Hi Niamh, Patrycja, Ruth, Natasha, Wiktorja, Emma, Laura and Bria- Thanks for your participation in this focus group. Please share your response below: Based on previous event experiences - how and when would you likely use the NW200 event app?

Like Comment

Bria Cunningham Prior to the race I would use the app and possible through the days I'm down at the NW200. I would use it mostly on my iPhone as it is quick and easy for me.
Unlike · Reply · 1 · 3 hrs · Edited
John Bustard replied · 3 Replies · 3 hrs

Ruth Flynn I would use it to keep up to date with any possible event updates/cancellations. It may also be good to track how busy certain events are especially those that aren't ticketed (the app could inform of events being sold out etc)
Unlike · Reply · 1 · 3 hrs

ADD MEMBERS
Enter name or email address...

MEMBERS 10 Members (9 new)

INVITED See More
megan_byers_1995@...
Send Reminder

DESCRIPTION Edit
Pilot Focus Group (PFG) Housekeeping Rules:
1. The PFG will dis... See More

GROUP TYPE
Study Group

TAGS Edit
Nw200 · Mobile app · Focus group · More

GROUP CHATS

Pilot Group

SHORTCUTS
NW200 App Experien...
NW200 App Experien...
NW200 App Experien...
NW200 App Experien...

The Coast Office
See More...

EXPLORE
12 Events
Pages
Groups
Ads Manager
Manage Apps
See More...

CREATE
Ad · Page · Group · Event

NW200 App Experience Online Fo...
Secret Group

Members Videos Photos

John Bustard with Laura Fletcher and 6 others.
October 23, 2016

Question 1: Based on previous event experiences - how and when would you use the NW200 event app?

Like Comment

Laura Fletcher I would tend to use the app coming up to the races for event details etc. Obviously it can't have as much info as a programme or nobody would buy them. Ideally I would like to be able to rely on the live timings as I'm pitboarding for a friend next sea... See More
Unlike · Reply · 1 · October 23, 2016 at 6:27pm

John Bustard Hi Laura - appreciate your insights. There are several points within your answer which we can unpack further during later questions specific to uses and needs. If you were to use it as an aid to your experience how and when (ideally) would you use it?
Like · Reply · October 23, 2016 at 6:33pm

Laura Fletcher Ideally it should have all the event info on there with race times and any revised times so when you're sitting somewhere you can go on and see delays etc as info isn't always easily accessed unless you're somewhere official. After races it would be gr... See More
Unlike · Reply · 1 · October 23, 2016 at 6:36pm

ADD MEMBERS
Enter name or email address...

MEMBERS 1 Member
You are the only group member.

SUGGESTED MEMBERS Hide
Jane Saunders Macnaghten Add Member

Chat (56)
Kay Cox Add Member

INVITED See More
benm@... Send Reminder
ben.meehan@... Send Reminder

DESCRIPTION Edit
NW200 App Experience Online Focus Group (PFG) Housekeeping Rules:

Group 2 Q1.

Appendix 8.

Focus Group – Final Questions, links and content:

Post 1 – App image

Post 2 – Group Rules: Pilot Focus Group (PFG) Housekeeping Rules:

1. The PFG will discuss questions related to the topic as stipulated in the welcome post.
2. The PFG discussion will continue for a minimum of 8 days and a maximum 18 days.
3. The facilitator will inform participants of the timetable when everyone could be available for discussion, taking into consideration the time zones of participants and the facilitator.
Your active participation in the discussion during these times is very valuable for the study. Please advise the facilitator if for some reason you are unable to join the discussion during the allocated time indicated and we will try to accommodate your schedule.
4. Participants are expected to reply at each question posted by the facilitator.
5. Participants are expected and encouraged to express their opinion or give comments in the form of written text.
6. When replying directly to another participant's comments, please insert the person's name so that he or she will get notification of your response.
7. Participants are discouraged to use foul language and to post irrelevant photos or videos.
8. Once all participants have discussed a question posted by the facilitator, the facilitator will post another question until all questions are asked and discussed. No more than two questions will be posted at the same time depending on the focus of the discussion.

Thanks for your participation. This is part of a PhD study facilitated by John Bustard of Ulster University.

Post 3: Introductory video and background to this research project.

Invite attendees (email, FB, call etc)

Welcome - while we're waiting - please watch the introductory video and following this, why not share your favourite NW200 experience below:

Post 4: Question 1: Based on previous event experiences - how and when would you use the NW200 event app?

Post 5: Question 2: Tell me about positive experiences you've had with the NW200 App?

Post 6: Question 3. Tell me about disappointments you've had with NW 200 App?

Post 7: Question 4. Who or what influenced your decision to download the event app?

Thanks guys - "we're half way there". - <http://youtu.be/IDK9Qqlzhwk>

Post 8: Question 5. When you consider the function of an event app, what do you look for? Note down three things that are important to you in your use of an event app?

Post 9: Question 6. From the three things you listed - if you had to pick only one factor that was most important to you, what would it be? You can pick something that you mentioned or something that was said by others.

Post 10: Question 7. What other apps or mobile experiences improve your event experience? What benefits do they bring?

Post 11: Question 8. Of all the things we've talked about, what is most important to your event experience?

Post 12: I'm going to summarise each question - feel free to challenge with a comment or click like if you are happy with my broad relation of the majority view.

Post 13: Question 1: Based on previous event experiences - how and when would you use the NW200 event app? SUMMARY:

Post 14: Question 2: Tell me about positive experiences you've had with the NW200 App? SUMMARY:

Post 15: Question 3. Tell me about disappointments you've had with NW 200 App? SUMMARY:

Post 16: Question 4. Who or what influenced your decision to download the event app? SUMMARY

Post 17: Question 5. When you consider the function of an event app, what do you look for? Note down three things that are important to you in your use of an event app? SUMMARY:

Post 18: Question 6. From the three things you listed - if you had to pick only one factor that was most important to you, what would it be? You can pick something that you mentioned or something that was said by others. SUMMARY:

Post 19: Question 7. What other apps or mobile experiences improve your event experience? What benefits do they bring? SUMMARY:

Post 20: Question 8: Of all the things we've talked about, what is most important to your event experience? SUMMARY:

Post 21: As the sun sets on this focus group - a big thanks from me. If you have commented on all posts and indicated that you have read the summaries with either a like or a comment - there will be a weekly paddock pass available to you next year! Lastly - what were your thoughts on the process?

Post 22: Revisions of Summaries – example:
I have revised one Summary given the feedback provided:

Question 2: Tell me about positive experiences you've had with the NW200 App? SUMMARY

Appendix 9.

Event App Focus Group Consent Form

Thank you for taking time to consider this study. This research aims to provide an understanding of the barriers and enablers to creating better event experiences through the use of social media and mobile platforms.

I am interested in discovering the barriers to and enablers of collaboration around an event app to improve the event experience. This project has been funded by *The Ulster University*, and will be invaluable in informing policy and developing guidance for local events tourism development.

By agreeing to take part in this study you will be asked to participate in an online focus group (questions can be answered at any time convenient to your access). The group will respond to 8 questions in an online group on Facebook. During the focus group all participants will simply be required to answer a number of specific questions relating to the event app and finally, an opportunity to comment further on your own perspective of event app. This experience will aim to capture your thoughts and ideas around using the event app. Your responses will be collated by me from the online group page. All data will be anonymised and remain confidential.

I look forward to working with you and appreciate your participation in this study. If you have further questions please don't hesitate to contact me.

Yours sincerely,

Mr John Bustard

PhD Student

Tel: 028 7012 4794 Email: Bustard-J@email.ulster.ac.uk

I confirm that I have read and understood the information provided. I have been given a full explanation by the investigators of the nature, purpose, location and likely duration of the study, and of what I am expected to do. I have been given the opportunity to ask questions on all aspects of the study and have understood the advice and information given as a result. *

- Yes
 No

I understand that all personal data and data collected during the study is held and processed in the strictest confidence, and in accordance with the Data Protection Act (1998). I understand that all personal information will be destroyed on completion of the project. *

- Yes
 No

I consent use of focus group information, with possible use of anonymised verbatim quotations from answers provided. *

- Yes
 No

I understand that I am free to withdraw from the study at any time without needing to justify my decision without prejudice. *

Yes

No

I voluntarily agree to take part in the study about co-creating the event app experience via social media. I have been given adequate time to consider my participation. *

Yes

No

I have completed the Event App Satisfaction Survey for 2016 - here <http://bit.ly/2cNGYHC> *

Yes

No

Please enter your age below *

Please provide your email address *

Please provide a contact telephone number *

Submit

This poll is in no way sponsored or administered by Facebook. The information you provide will only be used for this poll's purposes.

This poll is part of a research project by Ulster University focusing on the event experience for app users. For more details or any questions relating to the research project, please contact Bustard-J@email.ulster.ac.uk

Appendix 10

Focus Groups	Location/Age	Gender	Date(s)
Co-creating Participants :			
Group 1	FBSG 1 -online	M	06/10/17 - 17/10/17
David	21	M	
Rod	50	M	
Mark	31	M	
Don	36	M	
Jordan	18	M	
Davy	53	M	
Mark	38	M	
Ray	37	M	
Group 2	FBSG 2 -online	F	20/10/17 - 31/10/17
Christa	20	F	
Claire	33	F	
Laura	33	F	
Kelly	27	F	
Lorna	31	F	
Karen	41	F	
Group 3	FBSG 3 -online	M	6/11/2017 - 17/11/2017
Steve	36	M	
Owen	58	M	
Aaron	30	M	
Eddy	38	M	
Stephen	35	M	
Tommy	36	M	
Group 4	FBSG 4 -online	F	14/11/2017 - 24/11/2017
Suzanne	38	F	
Laura	32	F	
Sharon	46	F	
Cathy	47	F	
Jenni	42	F	
Group 5	FBSG 5 -online	M	29/11/2017 - 8/12/2017
Roger	45	M	
Derek	50	M	
Jonny	41	M	
Alan	49	M	
Colin	47	M	
Scott	21	M	
Robert	32	M	

First name	Last name	Gender	Email Address	Group	7. Please enter your age below	8. Please provide a contact telephone number	Group Start	Alt Profile	Date and time	First name
David Rod		Male		1.1	21		10/10/2016		2016-09-27 09:32:05	Rod
Mark		Male		1.1	31		10/10/2016		2016-10-03 10:53:10	Mark
Don				1.1	36		10/10/2016		2016-05-21 16:20:37	Don
Jordan		Male		1.1	18		10/10/2016		2016-09-28 13:19:16	Jordan
Davy		Male		1.1	53		10/10/2016		2016-09-26 21:40:11	Davy
Mark		Male		1.1	38		10/10/2016		2016-09-26 22:42:47	Ciaran
Ray		Male		1.1	37		10/10/2016	Ciaran	2016-09-26 16:14:56	Ray
Danielle				1.1	23		10/10/2016		2016-05-21 09:21:30	Danielle
Christa				1.2	20		24/10/2016		2016-10-06 09:48:41	Christa
Claire		Female		1.2	33		24/10/2016		2016-05-20 13:00:43	Claire
Laura		Female		1.2	33		24/10/2016		-	2016-10-07 11:36:46
Kelly		Female		1.2	27		24/10/2016		2016-09-26 21:52:08	Kelly
Lorna		Female		1.2	31		24/10/2016		2016-10-06 08:26:06	Lorna
Jenny		Female		1.2	40		24/10/2016		2016-10-06 14:28:13	Jenny
Karen		Female		1.2	41		24/10/2016			Karen
Trevor				2.1	57		07/11/2016			Trevor
Steve				2.1	36		07/11/2016		2016-09-26 18:36:46	Steve
Steve		Male		2.1	58		07/11/2016		2016-09-26 18:43:04	Steve
Colin		Male		2.1	58		07/11/2016			
Aaron		Male		2.1	30		07/11/2016		2016-10-06 08:41:04	Aaron
Eddy		Male		2.1	38		07/11/2016		2016-10-06 08:47:03	Eddy
Steven		Male		2.1	25		07/11/2016		2016-10-06 08:45:34	Steven
Tommy		Male		2.1	36		07/11/2016		2016-10-06 08:56:46	Tommy
Catherine		Female		2.1	59		07/11/2016		2016-10-06 08:41:01	Catherine
Angela		Female		2.2	34		21/11/2016		2016-10-06 08:44:00	Angela
Cathy		Female		2.2	47		21/11/2016			
Laura		Female		2.2	32		21/11/2016		2016-10-06 08:59:18	Laura
Mhairi Claire		Female		2.2	28		21/11/2016		2016-10-06 09:01:39	Mhairi Claire
Sharon		Female		2.2	46		21/11/2016		2016-10-06 09:04:48	Sharon
Jacqueline		Female		2.2	55		21/11/2016		2016-10-06 09:07:01	Jacqueline
Jenni		Female		2.2	42		21/11/2016		2016-10-06 09:14:50	Jenni
Stephen		Male		2.2	35		21/11/2016		2016-10-06 08:59:54	Stephen
Roger		Male		3.1	45		05/12/2016		2016-10-06 09:01:46	Roger
Derek		Male		3.1	50		05/12/2016		2016-09-28 10:36:55	Derek
Jonny		Male		3.1	41		05/12/2016		2016-10-06 08:50:58	Jonny
Alan		Male		3.1	49		05/12/2016		2016-10-06 09:11:50	Alan
Colin		Male		3.1	47		05/12/2016		2016-10-06 09:24:12	Colin
Graham		Male	3.1 LM - in lanzarotte -		40		05/12/2016		2016-10-06 09:34:59	Graham
Scott		Male		3.1	21		05/12/2016		2016-10-06 09:36:16	Scott
Robert		Male		3.1			05/12/2016		2016-05-21 09:00:43	Robert

The screenshot shows a Facebook group page for 'Pilot Focus Group: App Experience'. The page header includes the group name, a search bar, and navigation options like 'Home', '20+', and 'Notifications'. The main content area features a post by John Bustard asking for feedback on the app. Below the post are several replies from other members. On the right side, there are sections for 'ADD MEMBERS', 'MEMBERS' (10 Members), 'INVITED', and 'DESCRIPTION'. The description lists the group's purpose and provides a Facebook link. At the bottom, a chat window is open, showing a message from Emma, Natasha and 3 others regarding the app's questions.

Pilot Focus Group: App Experience
Secret Group

Discussion Members Events Photos Files

Joined ▾ Notifications ⋮

Search this group

John Bustard
4 hrs · Coleraine

Hi Niamh, Patricia, Ruth, Natasha, Wilkonia, Emma, Laura and Bria- Thanks for your participation in this focus group. Please share your response below. Based on previous event experiences - how and when would you likely use the NW200 event app?

Like Comment

Seen by everyone

Bria · 1 · 3 hrs · Edited
Prior to the race I would use the app and possible through the days I'm down at the NW200. I would use it mostly on my iPhone as it is quick and easy for me.

Unlike · Reply · 1 · 3 hrs · Edited

John Bustard replied · 3 Replies · 3 hrs

Ruth · 1 · 3 hrs
I would use it to keep up to date with any possible event updates/cancellations. It may also be good to track how busy certain events are especially those that aren't ticketed (the app could inform of events being sold out etc)

Unlike · Reply · 1 · 3 hrs

ADD MEMBERS
+ Enter name or email address...

MEMBERS
10 Members (9 new)

INVITED
megan...
Send Reminder

See More

DESCRIPTION
Pilot Focus Group (PFG) Housekeeping Rules:
1. The PFG will dis... See More

GROUP TYPE
Study Group

TAGS
NW200 · Mobile app · Focus group · More

Edit

GROUP CHATS

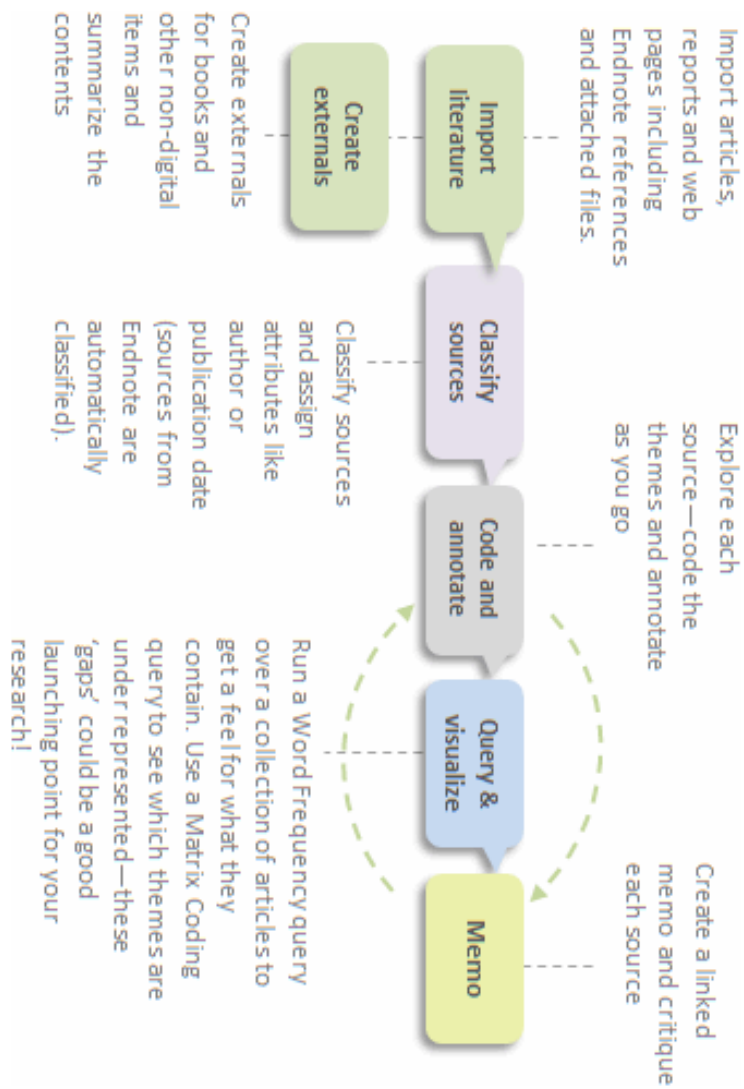
Emma, Natasha and 3 others + ⚙ X

Type a message

Hi again. We've asked the first of only 8 questions (see link below) - would it be possible to get your answer so we can progress to the next? Thanks
<https://www.facebook.com/groups/NW200appofexaminal/>
1723973705038721

Usher
University
Hi Niamh, Pat...
John Bustard

Appendix 12.



Appendix 13

SMART TOURISM EVENTS (STE's): Barriers and enablers of participation of key stakeholders:

1. Do you currently use a smartphone? If yes – what?
2. Is smartphone use impacting your business? If yes, can you provide an example to illustrate?

3. Have you recently used an event app? If yes, what do you think of it, If no, what would you expect of one?

4. STE's provide interconnectivity, shared access and data across an event ecosystem to improve experience – is this a reality in any cases or still theoretical in your opinion? Examples or lack of?

5. As an official event stakeholder – what could the app do for you?

6. Here is an app connected to the event – if you could be connected, would it benefit you?

Push Notifications geo-fenced / Provide offers / share in data / open your data

- 1. How well do you expect an app to load at the event?
Please choose from the scale of 1 to 5. 1 being 'poor' and 5 being 'excellent'**
- 2. What opportunities and/or challenges do you perceive 'location services' will offer your event experience?**
- 3. What opportunities and/or challenges do you perceive 'push notifications' will offer your event experience?**
- 4. What opportunities and/or challenges do you perceive enabling 'social features' will offer your event experience?**
- 5. What opportunities and/or challenges would you perceive from sharing your Facebook profile information to make your event experience more personalised?**

What are the most important parameters of event experiences in relation to technology use? – Why?

How do you feel the technology enhanced tourism experience model applies in relation to event experiences? Are there any peculiarities? - Explore

Are SMART Tourism concepts impacting the digital event experience? What specifically and how? - seek elaboration

What are the major tourist or event experience disruptions you feel will impact the industry?

What are the biggest challenges of industry in relation to managing technology enhanced experiences? Why?

What further elements do you believe are critical to managing the digital event experience? Why?

Interviewees – Final Phase

Column1	Column12	Column2	Column3	Column32	Column4
Smart Tourism Events: - Barriers & Enablers					
Interviewees	Based	Stakeholder/Academic	Age	Gender	Date(s)
Andrew	Portrush, Co. Antrim	Retail & Hospitality	47 M		09/05/2016
Alister	Portrush, Co. Antrim	Entertainment	48 M		10/05/2016
Karen	Birmingham, England	Sponsors	42 F		11/05/2016
Victor	Coleraine, Co. Derry	Event Retailer - PT	43 M		11/05/2017
Jamie	Leicestershire, England	Merchandise/Sponsors	32 M		12/05/2017
Fergus	Antrim, Co. Antrim	Event Manager	49 M		21/02/2017
Raymond	Castlerock, Co. Derry	Event Manager - PT	54 M		13/03/2017
Lidia Lalicic	Vienna, Austria	Academic - Events	/ F		25/04/2017
Barbara Neuhofer	Salzburg, Austria	Academic - Experience Design	/ F		11/07/2017
Ulrike Gretzel	Los Angeles, California	Academic - Smart Tourism	/ F		27/07/2017

Department of Hospitality and Tourism Management,
Ulster Business School,
University of Ulster (Coleraine campus),
Co. Londonderry,
BT52 1SA.

Tel: 028 70123923

Date: 27/07/17

Dear Ulrike,

Thank you for taking time to participate in my study. This research aims to provide an understanding of the barriers and enablers to creating better event experiences through the use of mobile platforms.

I am interested in discovering the barriers to and enablers of collaboration around an event app to improve the event experience. This project has been funded by *Ulster University*, and will be invaluable in informing policy and developing guidance for events tourism development.

By agreeing to take part in this study you will be asked to participate in a 2-part interview – the first guided by smartphone images as cues. The initial interview will last for approximately 5-10 minutes and the second semi structured part will explore perspectives of the digital event experience. During the interview all participants will simply be required to answer a number of specific questions relating to an event app (using visual cues) and secondly, an opportunity to comment further on your own perspective of digital event experiences. This data will be collected by using a digital Dictaphone or via QuickTime audio on Skype and will be recorded for analysis purposes. All data will be anonymised and remain confidential if preferred.

I look forward to speaking with you and appreciate your participation in this study. If you have further questions, please don't hesitate to contact me.

Yours sincerely,

Mr John Bustard

PhD Student

Tel: 028 7012 4794

Email: Bustard-J@email.ulster.ac.uk

PARTICIPANT CONSENT FORM: INTERVIEW – THE DIGITAL EVENT EXPERIENCE

- I confirm that I have read and understood the information sheet provided. I have been given a full explanation by the investigators of the nature, purpose, location and likely duration of the study, and of what I am expected to do. I have been given the opportunity to ask questions on all aspects of the study and have understood the advice and information given as a result.
1.
- I understand that all personal data and data collected during the study is held and processed in the strictest confidence, and in accordance with the Data Protection Act (1998). I understand that all personal information will be destroyed on completion of the project.
2.
- I consent use of auto taping, with possible use of anonymised verbatim quotations during the interview.
3.
- I understand that I am free to withdraw from the study at any time without needing to justify my decision without prejudice.
4.
- I the undersigned voluntarily agree to take part in the study about enablers and barriers of smart tourism events. I have been given adequate time to consider my participation.
5.

Name of Participant

Signed

Date

Name of Researcher

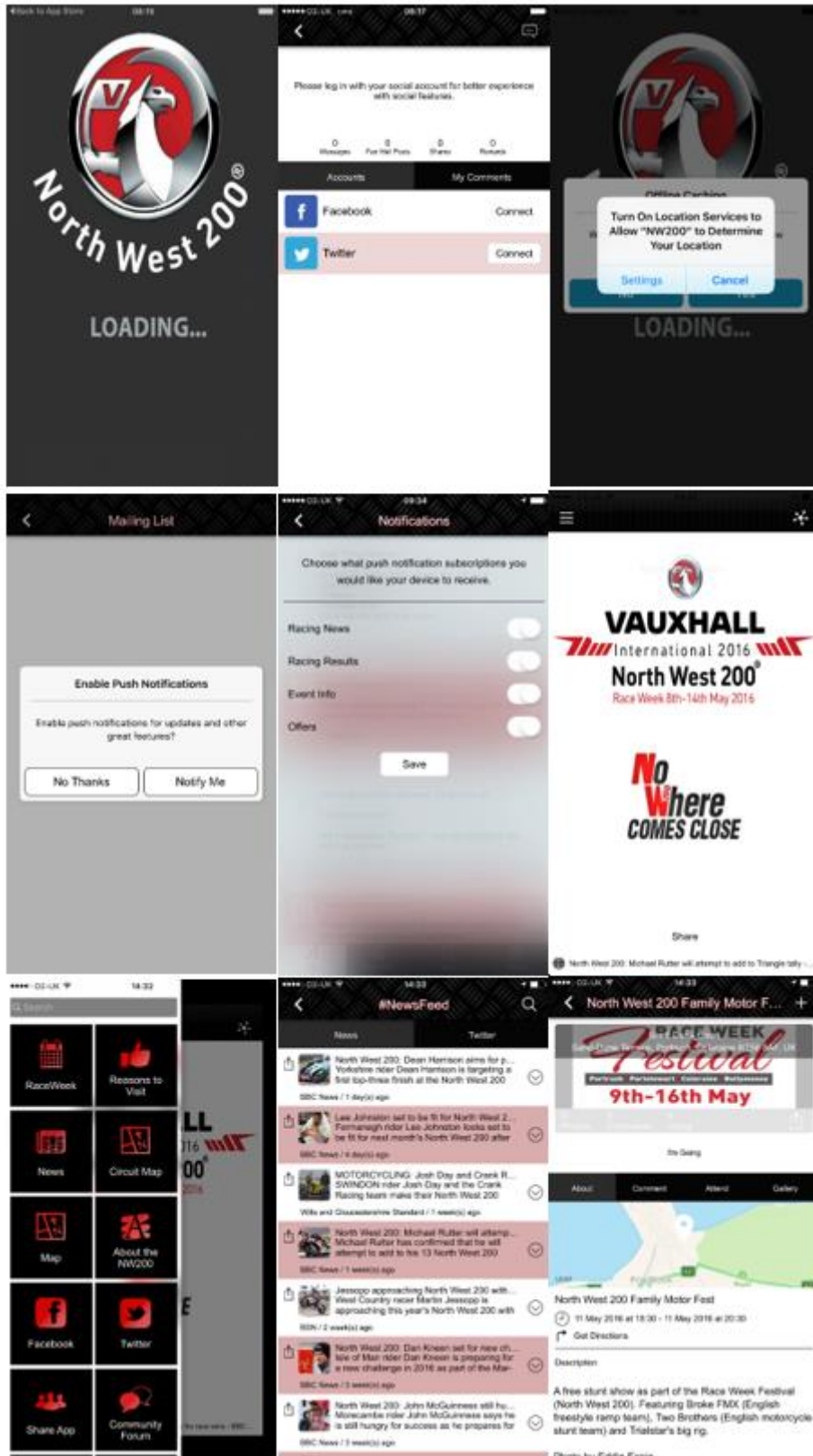
John Bustard

Date 11/07/2017

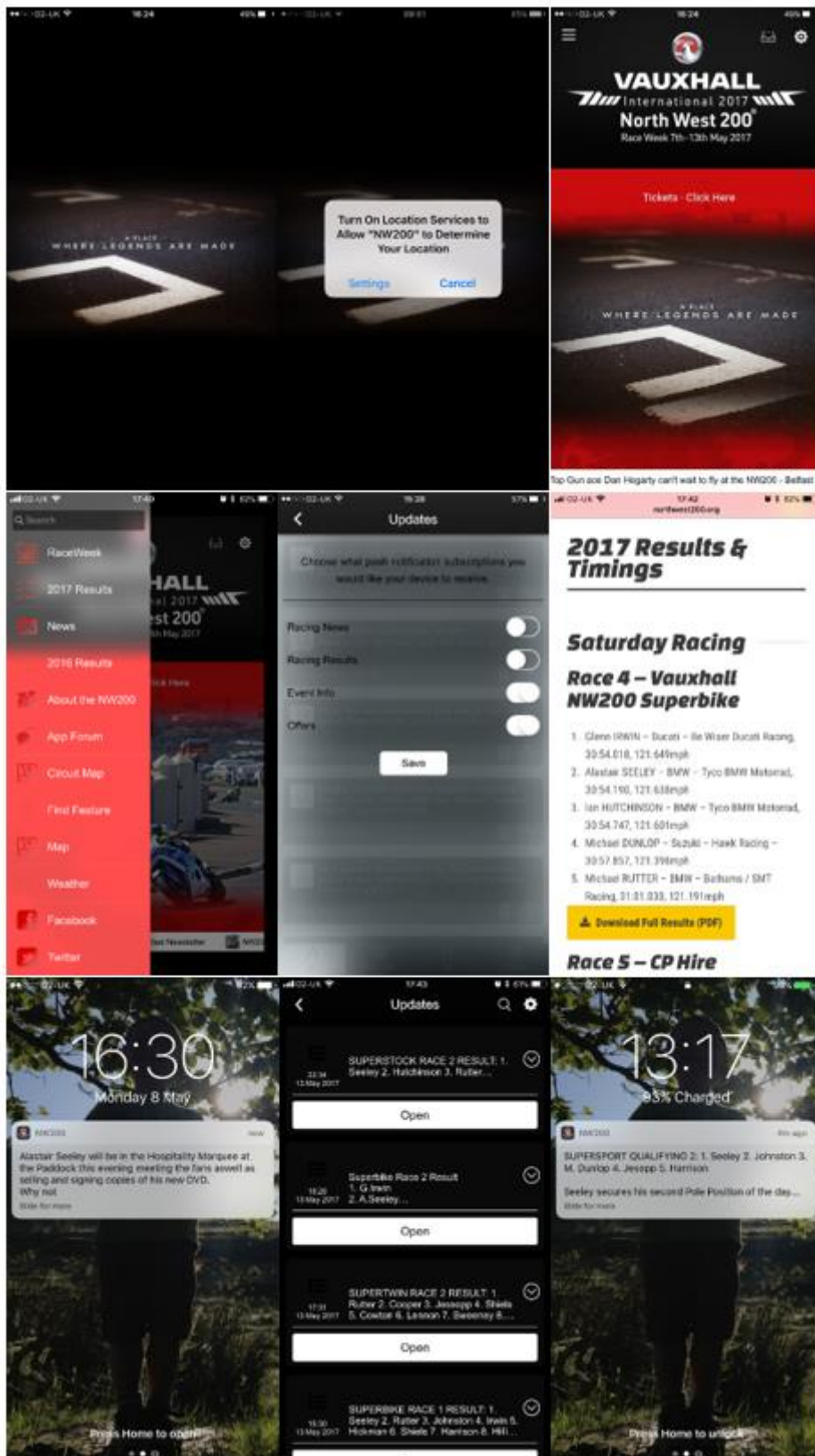
Signed

Appendix 15

Year 1 Screens NW200 2016



Year 2 Screens – NW200 2017



The screenshot shows a Facebook post for a poll. At the top is the Vauxhall International North West 200 logo, which includes a circular emblem with a motorcycle and rider. Below the logo is a red banner with the website address 'WWW.NORTHWEST200.ORG'. The Facebook interface shows 'Like', 'Follow', 'Share', and 'Sign Up' buttons. Below these is an 'Admin options' bar with 'Current poll: Your Satisfaction With the NV', 'Status: Active', and a 'Results' button. The main title of the poll is 'Your Satisfaction With the NW200 Event App - 2 minute survey'.

In this short 2 minute survey, please select appropriate scores/answers for the following questions to assist in understanding your experience as an event app user following this international sporting event.

This poll is part of a research project by Ulster University PhD candidate, John Bustard, focusing on the event experience for app users. For more details or any questions relating to the research project, please contact Bustard-J@email.ulster.ac.uk

How many times have you been a customer of the Event? *

Overall, how satisfied are you with the event app? *

Very Dissatisfied					Very Satisfied
1	2	3	4	5	

When did you download the app?

- Race day
- Start of race week
- Week before race week
- Month before race week
- Within 6 months of race week
- Within 1 year
- More than 1 year

Once you downloaded the app, did you return to the event website for information? *

- Yes
- No

Has the app helped you research the local area? *

- Yes
- No

Which of the following words would you use to describe the event app? *

- Unique
- Useful
- Ineffective
- High Quality
- Impractical
- Reliable
- Unreliable

Poor Quality

Did the event app enhance your overall event experience? *

Yes

No

If Yes - How? If No - Why? *

Would you have liked information on NW200 merchandise on the app? *

Yes

No

Do you have any comments about the event app to help direct its development? *

Submit

This poll is in no way sponsored or administered by Facebook. The information you provide will only be used for this poll's purposes.

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1. How many times have you been a customer of the Event? *

1 st time	2 nd time	3 - 5 times	5 - 10 times	10 - 20 times	20+ times
----------------------	----------------------	-------------	--------------	---------------	-----------

2. Have you downloaded the event app? Yes No

If no - why?

3. Overall, how satisfied are you with the event app? * please circle

1 2 3 4 5

Very Dissatisfied is 1 - Very Satisfied is 5

4. When did you download the app? * (put a tick in the box to the right of your answer)

-During tournament		-Week before		-Month before	
-Within 6 months		-Within 1 year		-More than 1 year ago	

5. Once downloaded, did you return to the event website? Yes No

6. Has the app helped you research the local area? * Yes No

7. Which of the following words would you use to describe the event app? *Please tick

Unique		High Quality		Reliable		Useful	
Ineffective		Poor Quality		Unreliable		Impractical	

8. Did the event app enhance your overall event experience? * Yes No

If Yes How? If No Why?

9. How likely is it that you would recommend the event app to a friend or colleague? *

1 2 3 4 5

1 is Definitely not - 5 is Definitely

10. Would you be willing to pay for the app? * Yes No

11. If no, are there additional features that you would be willing to pay for? *

12. Would you have liked information on local merchandise on the app? Yes No

13. Do you have any comments about the event app to help direct its development? *

From:

Age:

Occupation:

Appendix 17

Contact Type: _____ Site: Head Office
Visit _____ x _____ Contact Date: 30/09/2015 _____
Voice Call _____ Today's Date: 01/10/2015 _____
With: _Gerard McCauley/Mervyn White Written by: JB _____

1. What were the main issues and themes that struck you in this contact?

Challenges of sustainability due to budgetary challenges and subsequent implications

Openness to collaborate further and commitment to participate in a study if it provided the app technology component at no cost to the event.

Social media management issues (below) co-managed and partially outsourced (Margaret)

- Volume/Query similarities/Negative voice management/Resource Availability

2. Summarize the information you got or failed to get on each of the target questions for this contact:

Agreement for Study	Got confirmation of participation and agreement from event management to cooperate on a study of co-creating event app
Access to platforms	Agreement to co-manage app and access social media channel for the purposes of an exploratory Netnography.
Access to personnel	Communications contacts provided and authorisation for initiation

3. Anything else that struck you as a salient, interesting, illuminating or important in this contact.

Willingness to work with UU – mediating role of previous work with researcher and experience of delivering the platform critical to making the study possible.

New Events Manager due to start as Gerard leaving to work with the Circuit of Ireland Rally.

4. What new (or remaining) target questions do you have in considering the next contact with this site.

Assess situation with new Events Manager upon appointment – ensure buy in prior to final commitment and agreement to support the administration of the co-creation process

Opportunities to communicate with sponsors/stakeholders by researcher as part of the co-creation process as well as to enable a wider study and integration of eg. Offers/experiences.

Presentation of next phase of project – the Netnography and its focus and process.

Appendix 18

Data Accounting Log: OneDrive "Data" and backed up to Evernote - Bustard/2018/01												
Case	Contact Summary	Case Analysis	App Analytics (itunes/play)	Test Survey	Pilot Facebook 1	Facebook Survey 2	Facebook Survey 3	Facebook Survey 4	Physical Survey 1 App experience	Physical Survey 2 Event Experience	Interviews	
International NW200	Oct-15	Mar-16	Jun-16	event-info-and-features-poll – test 1042016	nw200-app-features poll 05042016	nw200-2016-app-updates 22042016	nw200creative survey 03052016	app-event-satisfaction-nps survey 15052016	N/A	N/A	09/05 - 12/05/2016(5) 21022017 (1)	
Participants	2	3	N/A	1	39	173	119	72	N/A	N/A		6
Causeway Golf	Nov-15	Mar-16	Jun-16	N/A	N/A	N/A	N/A	N/A	Causeway Coasts App Survey 8062016	Causeway Coast Tournament Evaluation 10062016	13/03/2017	
Participants	1	3	N/A	N/A	N/A	N/A	N/A	N/A	95	95		1
Academics	Nov-15	Mar-16	Jun-16	N/A	N/A	N/A	N/A	N/A	Causeway Coasts App Survey 8062016	Causeway Coast Tournament Evaluation 10062016	25042017 (1) 11072017 (1) 27072017 (1)	
Participants	3	3	N/A	N/A	N/A	N/A	N/A	N/A	0	0		3
Key:												
Comparative Opportunity												
Theoretical Framework analysis												

Appendix 19

Initial Comments		
Emergent Themes	Original Transcript	Exploratory Comments
Cap-Active Participant	Reference 31 - 0.08% Coverage	
Convenience – all in one	Yes, anything that has all the info needed in one place is always a plus in my books	
On-site experience	Reference 32 - 0.08% Coverage	
Convenience – handy for latest info	For me personally I would use it for the what's on guide for the week while I'm staying up there. Also handy for keeping up with the latest news from practice sessions and team updates.	
Dynamic Co-creation	Reference 33 - 0.08% Coverage	
Event innovation	Sorry , yes the coast section what people usually refer to is the section from black hill to York which is marked as a vantage point on the map.lately unless you are up super early or purchase a grandstand seat the viewing areas are very restrictive and generally not a great section to view from.this is where a more interactive map with spectator's chat section would be better.then regular visitors could say what to expect or give tips on where to go.	Participant is knowledgeable and engaged in his NW200 experience and demonstrates an aptitude for mobile technology and an explorative capacity around improving an app. One example for improving vantage through augmentation was "this is where a more interactive map with spectator's chat section would be better.then regular visitors could say what to expect or give tips on where to go"
Crowd sourcing event support	Reference 34 - 0.08% Coverage	
Digital entertainment	Well definitely link to a page or forum section will all the information.can have subsection for pics, data,videos or general chat.means before the visitor ever arrived track side they know everything they could want.like example is the coast section, in bbc pics and videos it looks a great section but from a spectator's point of view it's a bit rubbish.	This Co-creation interchange highlights the potential of participants in establishing challenges to the event experience which could detract from satisfaction such as "in bbc pics and videos it looks a great section but from a spectator's point of view it's a bit rubbish"
Social and Digital		
Event innovation		
Crowd sourcing event support		
Digital and experience mismatch	Reference 35 - 0.08% Coverage	
Co-production of digital experience	Definitely , the section for pics is already on the app so even use that or allow pics/vid links to be added by Spector's in the map comments.so you get a real good idea of what the area is like.one of the most popular questions asked by people visiting the nw200 to us regulars is usually "where's a good place to see the action" and although places like Metropole and millroad are tagged on the map, unless you are there at the crack of dawn they aren't spectator friendly spots.	
Crowdsourcing experience insights	Reference 36 - 0.08% Coverage	
Spectator focused digital inspiration	Well I think more could be added to the map (link that leads to google maps) some spectators come over to see high speed action or technical sections of the track so if you add more information and pictures/video links from the spectator's point of view of that section it will let visitors know what to expect.	
Digital event experience doorway		
Experience expectations	Reference 37 - 0.08% Coverage	
Technology issues	Well it was getting like a failed connection or something.when you clicked on features like news it wasn't loading any data or error messages.i can't remember exactly what it was at the time but had reported it at the time	
Connectivity issues	Reference 38 - 0.08% Coverage	
Technology 'glitches'	Used it more this year as last time I don't know if it was my phone but I was getting loads of glitches that's made it a nightmare to use.	
Event Veteranicity	Reference 39 - 0.08% Coverage	
Experience terminology	My best experience.....was marshaling back in the day and my trusty RGV failed to start of course due to a duff plug.made it to the magic roundabout but roads had just closed and I was doing black hill luckily a quick call from raynet and a travelling Marshall came and escorted me to me section....let's just say the Suzuki got a proper spanking	Participant is clear around being more than just a spectator. The marshalling story and the challenge faced - "duff plug.made it to the magic roundabout" is memorable and presents some of the delights of the event for the participant such as adrenalin from speeding - "let's just say the Suzuki got a proper spanking"

Appendix 20

NW200 App Experience Online Focus Group 5

NW200 App Experience Online Focus Group 5
Secret Group


About
Discussion
Your post
Members
Events
Videos
Photos
Manage Group

Search this group

Shortcuts
NW200 App Experience...
NW200 App Experience...
NW200 App Experience...
Poll
NW200 App Experience...
The Coast Office
NW200 App Experience...
Surf SUP NI
The International Nor... 1
Teach... 3
UUC Surf Club members
Digital Research Methods
Bushmills communi... 20+
North Coast Surf 20+
Coleraine News, G... 20+
Coleraine BUY SE... 20+
SUP NI Community
See more

Colin Boyd ... Maybe I already stated this elsewhere but I always enjoyed trying to spot the riders number as they go past and scribe this into the boxes on the programme. Maybe if this was automated i.e. boxes complete via refreshing page or in short term, give us boxes on the app where we can type in numbers as riders pass and maybe the app could then add info like riders name, machine etc against this
Like · Reply · 1y

Jr ... M ... Hi ... I thought about that too. Timings vs positions. I considered the notion of having checkpoints around the course. The positions would come up on the app for each of these. Something like...



Like · Reply · 1y

Jr ... M ... I tried to think of points AFTER passing opportunity places.
Like · Reply · 1y

Jc ... M ... Sorry , that should have been OBVIOUS passing opportunities.
Like · Reply · 1y

Colin Boyd ... Yea I know what you mean i.e. Metropole Corner would let us know who won the drag down into Portrush. - How would you present this graphically?
Like · Reply · 1y

Colin Boyd Are we getting away from 'Timings' into 'Positions' - which is most important to us...for me it's position.
Like · Reply · 1y

Jr ... M ... Yep. I agree. I feel bad that I keep harping on about the TT live timings section of their site and app BUT I guess it would be similar. You could have the checkpoints across the top, left to right. As the riders pass through they show up on the screen. Does that make sense?
Like · Reply · 1y · Edited

Jr ... M ... Obviously on the TT site it comes up with the sector times. For the NW200 it would simply be the names come up in position order.
Like · Reply · 1y

Colin Boyd ... Yip good idea, and maybe colour highlighted if a position changes

North West 200



@Ballymoney Museum

SATURDAY 12th MAY

9am-5pm: NW200: People & Places, Ballymoney Museum. Free admission. A new exhibition featuring people and places from the *Chronicle and Constitution* archive (1987-1997); the emergency services; Capture the Moment 2017 photographs; bikes, leathers and memorabilia.

10am-4pm: Mini Moto Racing. Aghadowey Circuit, BT51 4AE. Free admission.

1pm-9.30pm: 90+ Years of Motorcycles, Roe Valley Arts & Cultural Centre, Limavady. Free admission

1pm-3pm: NW200: People & Places Family Fun Day, Ballymoney Museum. Free admission.

SUNDAY 13th MAY

8am & 9am: Causeway Cycle Club Air Ambulance Charity Cycle. Sign on at 7am NW200 Paddock.

10am-4pm: Mini Moto Racing. Aghadowey Circuit, BT51 4AE. Free admission.

1pm-5pm: NW200: People & Places, Ballymoney Museum Free admission.

1pm-5pm: 90+ Years of Motorcycles, Roe Valley Arts & Cultural Centre, Limavady. Free admission

3.30pm: Pre-Race Chaplain Service in Entertainment Marquee. Everyone welcome.

MONDAY 14th MAY

9am-5pm: NW200: People & Places, Ballymoney Museum Free admission.

10am-5pm: 90+ Years of Motorcycles, Roe Valley Arts & Cultural Centre, Limavady. Free admission

3pm-7pm: Car boot sale Location T.B.A

4.30pm-7pm: Veteran, Vintage and Classic Vehicle Display at the start area (inc cavalcade of course at 7pm)

7.30pm: An Evening with John McGuinness Admission £5

TUESDAY 15th MAY

9am-5pm: NW200: People & Places, Ballymoney Museum

9.15am-3pm: ROADS CLOSED FOR OFFICIAL PRACTICE

10am-10pm: Vintage & Classic Bike Display Portstewart Town Hall

10am-9.30pm: 90+ Years of Motorcycles, Roe Valley Arts & Cultural Centre, Limavady. Free admission

8pm: Miss North West 200, in association with ACA Models in the Entertainment Marquee, sponsored by Morelli's of Portstewart, then music by Brian Giffen & The Untouchables. Admission £5

WEDNESDAY 16th MAY

9am-5pm: NW200: People & Places, Ballymoney Museum Free admission.

10am-9.30pm: 90+ Years of Motorcycles, Roe Valley Arts & Cultural Centre, Limavady. Free admission

10am-10pm: Vintage & Classic Bike Display see Tuesday

6.30pm-8pm: Family Motor Fest, a free stunt show at East Strand Portrush featuring:

- **Broke FMX Freestyle Bike Show**
- **Two Brothers Stunt Team**
- **Triallstars Trials Show**
- **Simulators and family entertainment**

7.30pm: Steve Parrish Mad Tour. Colourful & entertaining life & times of Stavros. Admission £12



Broke FMX Freestyle Bike Show



Triallstars Trials Show



Two Brothers Stunt Team

THURSDAY 17th MAY

9am-5pm: NW200: People & Places, Ballymoney Museum Free admission.

9.15am-3pm: ROADS CLOSED FOR OFFICIAL PRACTICE

10am-5pm: 90+ Years of Motorcycles, Roe Valley Arts & Cultural Centre, Limavady. Free admission

10am-10pm: Vintage & Classic Bike Display see Tuesday

5pm-9pm: ROADS CLOSED FOR RACING

9pm-Late: Music by The Unusual Suspects in the Entertainment Marquee. Admission £5

FRIDAY 18th MAY

9am-4.30pm: NW200: People & Places, Ballymoney Museum Free admission.

10am-3pm: Vintage & Classic Bike Display see Tuesday

10am-9.30pm: 90+ Years of Motorcycles, Roe Valley Arts & Cultural Centre, Limavady. Free admission

11am-12.30pm: MCUI U.C. Trials Demonstration - Start Area

2pm-4pm: Meet the Riders, Coleraine Town Centre. Interviews, photographs and photos with stars of the North West 200

4pm: NW Vintage Motorcycle Club Display at Paddock (cavalcade leaving at 7pm)

6pm-8pm: Paddock Walkabout. Free Admission

7.30pm: An Evening with NW200 Past winners in the Entertainment marquee.

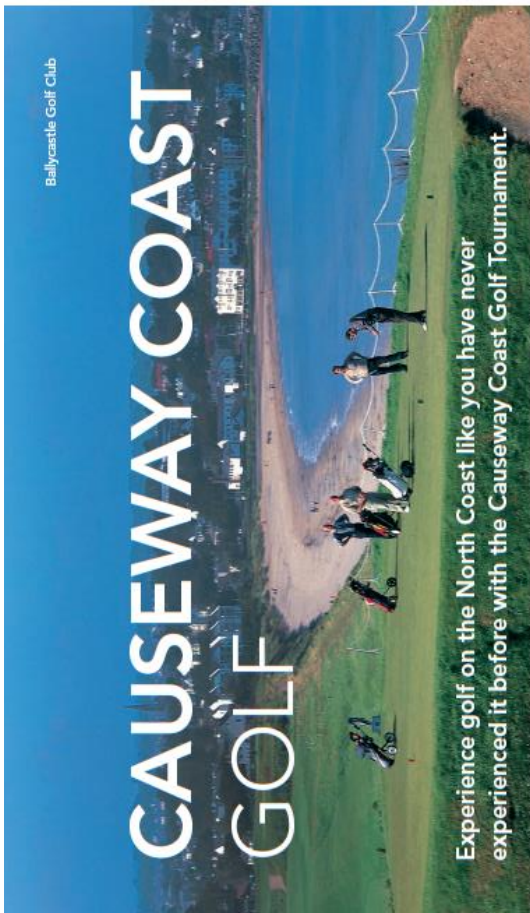
8.30pm: Free outdoor concert with Cellar Door at the Crescent, Portstewart.



10.30pm: Spectacular Fireworks Display at the Crescent, Portstewart



Fireworks display at Portstewart



Ballycastle Golf Club

CAUSEWAY COAST GOLF

Experience golf on the North Coast like you have never experienced it before with the Causeway Coast Golf Tournament.

ADVERTISEMENT



The Old Course, Ballyliffin

Tour where you can even get to catch your own breakfast in the crystal clear waters of the Causeway Coast before you head out to the links.

And if you're feeling mythical, the ruined medieval castle of Dunluce Castle is only a five minute drive away. This castle is surrounded by extremely steep drops on either side, and is famous for appearing as the House of Greyjoy in Game of Thrones.

Northern Ireland's most famous natural attraction, Giant's Causeway, an ancient volcanic eruption, the area of around 40,000 interlocking basalt columns, is not to be missed.

Less than a 10-minute drive away from Giant's Causeway is the Bushmills Distillery, the oldest in Ireland, which produces the smooth-tasting whiskey known all over the world.

More than anything, you will discover the friendliness and camaraderie that comes with playing in the tournament. It is no coincidence that many of the golfers are repeat business, they come back every year to play these great courses and

stone's throw from Royal Portrush, the Distillery and the Causeway.

Entrance fees are only £80 for host club members, £170 for GVI residents and £230 for overseas visitors, including green fees. The competition runs over five days, with one rest day, and complimentary practice rounds may also be available at the discretion of the clubs. There are opening and closing ceremonies, with drinks receptions and prizegiving. For more information, check out www.causewaycoastgolf.com

along the Atlantic shore, it is where 2010 US Open champion Graeme McDowell learned the game.

The Old Course at Ballyliffin has had the input of one of golf's greatest champions, Nick Faldo, all over it on this stunning 36-hole facility in Donegal. The Old Links undulates in the glory of its natural terrain, presenting a golf course that is considered among the top 20 best courses in Ireland, according to Golf Digest.

The Warren Links at Ballycastle is situated in an 'Area of Outstanding Natural Beauty' on the North Antrim coast, and offers a part links, part parkland course. It is a spectacular stretch of coastline, with panoramic views of the like Mull of Kintyre, Rathlin Island and Ballycastle Bay, which mixes flat, low-lying holes with

seaside classics. The Mussenden Links at Castlerock Golf Club is set among rolling sand dunes, where its scenic qualities embrace the River Bann flowing out to the Atlantic. Another top-class links that has been played by the best, there are eye-catching views of Donegal and the Isle of Islay towards Scotland.

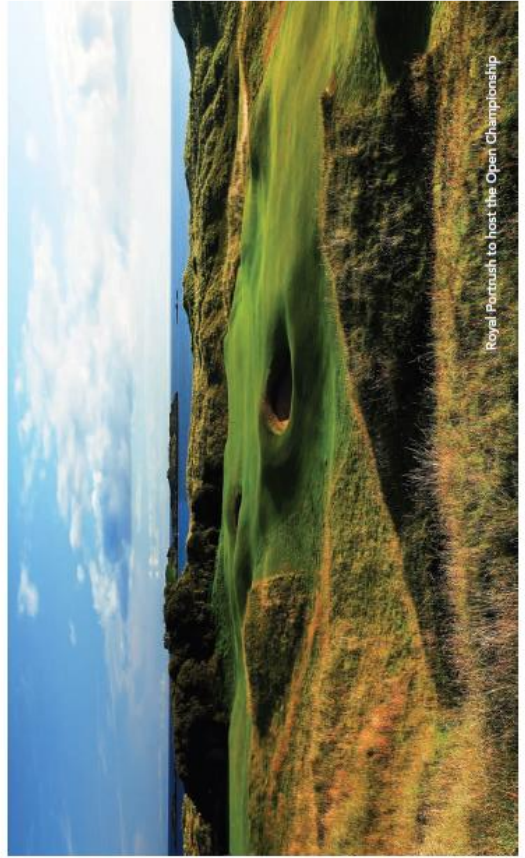
The quality of the courses speak for themselves, but it also offers another chance to visit the Causeway Coastal Route. Walking tours provide the opportunity to see the Causeway Coast on foot, while Coaststeering with Aquaholics - Dunluce Castle, Portrush beaches and more - in a high speed boat. With the Causeway Coast Foodie Tours, you can take the Catch and Sea

The largest amateur tournament in Europe, it has been running successfully ever since 1967. A highlight of the golfing calendar, it has attracted upwards of 700 golfers annually from all over the world. The competition is popular, not only with Irish golfers, but players from mainland UK, Canada, USA, Scandinavia and continental Europe.

Taking place in the middle of the summer, from 4-8 June 2018, golfer will take on four links classics in Castlerock Golf Club (Mussenden Links), Royal Portrush Golf Club (Valley Links), Ballyliffin Golf Club (Old Course) and Ballycastle Golf Club (The Warren Links).

It comes at a special time for the North Coast of Ireland, with the Dubai Duty Free Irish Open taking place at Ballyliffin this year, with our national Open at Portstewart last year. Then, of course, the world will be watching in 2019, when Royal Portrush hosts the Open Championship, the first major championship to hit these shores in almost 70 years.

Maybe you might slip in a round at the famous Dunluce Links, but the tournament will be played at Royal Portrush's fine Valley Links. Featured on the same beautiful setting of the Causeway Coast, between the huge sand hills immediately



Royal Portrush to host the Open Championship

It comes at a special time for the North Coast of Ireland, with the Dubai Duty Free Irish Open taking place at Ballyliffin this year, with our national Open at Portstewart last year.

Appendix 23

NW200 Stakeholders	Stakeholder Type	Stakeholder Examples
Primary	Supporting Stakeholders	<p>Vauxhall, Tourism Ireland, BBC Sport NI, Sport NI, Causeway Coast & Glens Borough Council, Merrow Hotel & Spa, The Anchor Complex, CP Hire Ltd, JM Patterson Plant & Machinery, Bet McClean.com, Bayview Hotel, HEL Performance, Burnside Garage Ltd, Electronic Excellence Ltd, Bathams Brewery, The Lodge Hotel, Magherabuoy House Hotel, Schimmel Distribution, GB Racing, Portrush Atlantic Hotel, Lynas Food Service, Ulster University, The Tides Restaurant, The Newbridge Restaurant, Nicholl Oils, Dickies Workwear Company, Arai, RST, Clinton Enterprises, Alpha Newspaper Group, Global Robots.com, Michelin, Kawasaki, Arai, Applegreen, Schimmel Distribution, Burnside Garage, Batham’s, GB Racing, Magheraboy Hotel, Lynas Foods, Nicholl Oils, Tides Restaurant, Newbridge Restaurant, McKinstry Skiphire, Mar-Train Heavy Haulage Ltd, Kronos Audio Visual, Nutts Corner Outdoor Karting, Insta Mold NI, Blood Transfusion Service, TT Shirts.com, Old Bushmills Distillery, Armoy Road Races, Nevin Electrics, Milenco, Schimmel Distribution, Cromore Halt, Inn on the Coast, Moores, Bridgestone, James Jamieson Construction, Agnew Recovery Services Ltd, Domino’s, Nulife Engineering, McKendry Fabrications, Fuelwise, MMB Surfacing, Ulster Grand Prix/MCE Insurance, Burnside Garage, TorqueTronix, Joey Dunlop Foundation, The Visor Shop, Portstewart and Castlerock Holiday Parks, A Diamond and Son, McClarty’s Insurance, McNicholl Caravans, JT Sprockets, Alpha Media Group, Wilsons of Rathkenny, Blairs Holiday Park, Fireblade Ministries, Eventsec, Movilla House, Mudbuster Products, Dynamic Audio-visual, Xpress Coffee,</p>
	Participating Stakeholders	<p>Honda Racing, Gulf BMW, The Marshals Association, The Motorcycle Union of Ireland, Tyco BMW, BMW Motorrad.co.uk, Temple Golf Club Yamaha, Batham’s Racing, Be Wiser/PBM Ducati, IC Racing, Tyco BMW, Eha Yamaha, MD Racing, Honda Racing, Padgetts, Quattro Plant, JG Speedfit Kawasaki, Silicone Engineering Kawasaki, Smith’s BMW, Trooper Beer Triumph, Jackson Honda, McAdoo Kawasaki, Gulf BMW, Silicone Engineering Racing, Performance Racing Achterhoek, Magic Bullet Motorsport, Pennine Stone Ltd, Plant fitter.com/JE Autos, KW Electrical/CMS, ASM Road Racing, GT Superbikes/Phil Morris Racing, Delaur Road Racing Belgium, Tradehelp/Jackson Racing Academy, EHA Yamaha, Paul Potchy Williams, Riders Motorcycles, Optimark Road Racing Team, Gordon Huxley Racing, PMH Promotions, Martimotos Racing, Saiger Racing – Horst</p>

		<p>Saiger, Team DCR, PRL/Worthington, Martimotos Road Racing Team, MJR Racing, Ryan Dixon Racing, Paul Macket/Elite Cranes Ltd,, ILR, Burrows Engineering Racing, Shirlaws/Sinclair Bay Subsea, B&W Racing, Forest Dunn Racing, JLG Racing, DB Racing Team, How-TAJ, Red Line Road Raacing, Ecta Training, Goetschy Racing, Optimark, Road Racing Team, Trooper Triumph by Smiths Racing, Royal Airforce Kawasaki, Silicone Engineering Racing, BHR, Pennine Stone Ltd, Turriff Caravan Centre,/JD Auto Body, IMP Cross Engineering, MSC Rottenegg, PMH Promotions, Nadih Schoots Racing, Colin Dunlop Racing, PRL/Worthington, Hollins Strategic Land/GoGreen Racing, Paul Mackey/Glenn Scott Motorcycles, Burrows Engineering Racing, Carnegie Fuels, NW Racing, NJ Doyne/McGee Racing, Eddie Stobart, PRF Racing, Polet Jean Pierre, Henri Motos Racing, KMR Kawasaki/IEG Racing, RB Engineering Woolich, Andy Donald Slating, KW Electrical/CMS, Faraldo Racing, Jonathon Perry Racing, Team DCR, Liely Heating Racing, Team JCR, ILR M Coverdale, Bruce Birnie Racing, NGK Spark Plugs Ltd, Shirlaws/Sinclair Bay Subsea, KMR Kawasaki/IEG Racing, JLG Racing, CG Racing, Lee Cardy Racing, Temple/Caffrey, Plant Fitter.com/JE Autos, Cam Racing, Gordon Huxley Racing, PMH Promotions, Ryan Dixon Racing, ILR, Burrows Engineering Racing, How-TAJ, Gulf BMW, Bewiser Ducati, IMP Cross Engineering, T33, PRA by Tovani, Carnegie Fuels, NJ Doyne/Magee Racing,</p>
	Attending Stakeholders	Hospitality Package, Grandstand viewers, Paddock
	Organising Stakeholders	Coleraine and District Motorcycle Club, PSNI, BBC NI, BBC Radio Ulster, Ballymoney Museum, Road Service NI, BikeSafe, Department for Communities, Department for Infrastructure
	Supplying Stakeholders	Redback Creations, Green Light Media, JPR Consulting, SD Photography, Clintons Merchandising, Vauxhall, Mount Charles, Xpress Coffee, Nutt Travel, Coleraine Garden Centre NI, Air Ambulance, McKinstry Skiphire, Maxwell Freight Services, Schimmel Distribution, Oliver Transport, Bridgestone, Agnew Recovery Services Ltd, MMB Surfacing, St Johns Ambulance, Actavo Event Support Services, Wilsons of Rathkenny, Briggs Equipment UK, Coleraine Harbour Commissioners, Causeway Coast Rentals, Coca-Cola Helenic, Eventsec, Harte & Eakin Contractors, Hill Contracts, JM Patterson, Lidl, Lynas Food Service, Mountcharles, Nutt Travel, Profile Publishing, Benson & Son, Raynet, Royal British Legion, Schimmel Distribution, Telent, Tesco Ballymoney, Xpress Coffee, GPS Printers, Dynamic Audio-visual, Electronic Excellence Ltd, Lodge Hotel,
Secondary	Government and Civic Bodies	Stormont Executive, Department for Communities, Department for Infrastructure, NI Prison Service,

		Causeway Coast and Glens Borough Council, Ulster University, NSPCC< Sport NI,
	Emergency Services	PSNI, Ambulance, Fire Service, Air Ambulance, HM Coastguard,
	Tourism Organisations	Tourism Northern Ireland, Tourism Ireland, Causeway Coast and Glens, Visit Belfast,
	Tourists and Visitors	Social Energisers, Family Fun, Culturally Curious - Key Targeted Demographics
	General Business	Blackrock B&B, Kellys Complex, Amici Restaurant, Anchor Bar, Atlantic Hotel, Bayview Hotel, Newbridge Restaurant, Nutt Travel, Tides Restaurant,
	Host Community	Portrush, Portstewart and Coleraine areas and interconnecting NW200 track roads
	Media	BBC NI, Green Light TV, Causeway Coast Community Live, Alpha Newspaper Group, Radio Ulster, UTV, Belfast Telegraph, Profile Publishing, Stephen Davison/Pacemaker Press, Downtown Radio, NIMMS, BBC Sport NI, Causeway Coast Community News, Ballymoney Times, Coleraine Times,

Quantitative Findings From Non Parametric Tests

This chapter continues the focus on data interrogation, toward evaluating the research question “*will co-creation of the event app experience through social media with the spectators of an international event improve satisfaction?*” Focusing on obtaining an evaluative quantitative perspective of the co-creation action on the digital event experience, through measurement of the event apps studied, a sample of 549 event goers were surveyed. The survey took place across a two-year period attached to two events in the region. The following section details the approach, focus, considerations and delivery of the evaluative phase of the study of the digital event experience.

11.1 Evaluative Phase of Digital Event Experience Study

After careful consideration of prior research conducted addressing the complexities of the event experience but with a focus on the digital component, it was felt appropriate and deemed most suitable to apply a mixed-methods design to collect, analyse and integrate data to assist in more fully understanding the evolving event experience. In this instance, a better understanding of both qualitative and quantitative aspects was deemed most suitable to fully explore the research problem (Creswell, 2013). A survey methodology was adopted as the means of gathering quantitative insights in a repeat cross-sectional study of two events across a two-year period. Contextual data from app download, engagement and use is also utilised regarding comparative analysis of each event app.

This type of design can be referred to as an embedded mixed methods research design (Creswell and Clark, 2007) and was adopted as best fit to contextualise the quantitative data generated to evaluate the impact of co-creation on some basic constructs related to the digital event experience phenomenon. Several single-item measures were developed for this purpose and subsequently designed and refined (see appendix 16). This design was chosen to assure delivery, maximise participation and create a focus on the critical constructs of satisfaction (Geus et al., 2013), enhanced

event experience, location services (Luxford and Dickinson, 2015) and willingness to pay (Andersson and Ambrecht, 2014).

After negotiation with event organisers of two international tourism events (The International NW200 and Causeway Coast Amateur Golf Tournament), a netnographic approach was adopted (Kozinets, 2010) to explore the social media spaces of both events with the initial expectation to be able to serve a digital survey in both cases. Several online investigations were conducted with the subsequent effect that it was deemed necessary to deliver the survey in person at the second event due to a lack of available participants online (reach and engagement with the older male demographic was very limiting within the required data collection timeframe).

11.2 Key Event Info: Comparative and Perspectives

The events studied as part of this research are Event 1 – The International Northwest 200 Motorcycle Road Racing Event (NW200) and Event 2 The Causeway Coast Amateur Golf Tournament (CCGolf). Event 1 (NW200) fits exactly to the prescribed key characteristics of an international event as presented by (Ferdinand et al., 2017) as it has a global focus of media attention and creates a significant economic impact. The event is large in scale with 82,132 spectators contributing more than £10 million to the local economy (Bullough et al., 2017).

Event 2 (CC Golf) celebrated its 50th year in 2017 and is significantly lower key regarding visitor numbers, but as a participant event experience of international standing, it has had a recent average of 500+ participants each year playing in a four course (72 holes) competition. The event which, according to event organisers, had in the 1990s hosted as many as 1,100 participants.

Although both events are sporting in nature, they varied considerably regarding one being more exclusively a spectator experience (NW200) and the other exclusively a participant experience (Causeway Golf or CCGolf). Critically, regarding the focus of this study, they provide a comparative opportunity of significance, due to both utilising an event smartphone app which is developed and delivered on the same platform (Businessapps.com).

11.2.1 Overall Sample: Descriptive Insights

A total of 549 participants took the survey, out of whom 436 are men, and 110 are women. There is no data about the gender of the first 3 participants due to an oversight on initiating the requirement to specify this via Facebook polls tool for providing name and gender details from user profiles during the first survey (Event 1: Year 1).

Table 5 shows frequencies and percentages of participants who were surveyed at each of the events. The design was a repeat cross-sectional two-year study of two events – one is a spectator sporting event (Event 1: NW200) and the other a participant sporting event (Event 2: Causeway Golf Tournament or CCGolf).

Table 5 - Frequency and percentage of participants

Event Samples		Frequency	Percent
Valid	Event1	349	63.6
	Event2	200	36.4
	Total	549	100.0

11.2.2 Event 'Veteranicity'

Table 6 shows that almost a quarter of those surveyed across both events attended more than 20 + times. Approximately one-fifth of survey participants were attending the event for the first time. Apart from those attending events for the second time, there is not much difference in numbers between those surveyed who have attended the event twice, 3-5 times, 5-10 times and 10-20 times before.

Table 6 - Frequency and Percentage of Participants by Previous Visits

How many times have you been a customer of the Event?		Frequency	Percent
Valid	This is my first time	100	18.2
	This is my second time	58	10.6
	3-5 times	89	16.2
	5-10 times	94	17.1
	11-20 times	78	14.2
	20 plus times	130	23.7
	Total	549	100.0

11.2.3 Willingness to Pay

Overall it is evident (See table 7 below) that most of the participants would not be willing to pay for the app (391, i.e. 71.2%), and just under one-quarter overall would pay (132, i.e. 24%). The rest of the participants (26, i.e. 4.7%) did not answer the question. These survey participants were all from event two who did not provide an answer for this item either way.

Table 7 - Willingness to Pay for App – Overall

Would you be willing to pay for the app?		Frequency	Percent
Valid	No	391	71.2
	Yes	132	24.0
	Total	523	95.3
Missing	System	26	4.7
Total		549	100.0

11.2.4 Overall Satisfaction with the App

Table 8 below highlights that most of those surveyed across both events and both years downloaded the smartphone application (453, i.e. 82.5%), and 17.7% (96) didn't. Event 1 participants (349 - 63.6%) were all pre-qualified as app users through a specific targeting and pre-survey opt-in via Facebook. Those who downloaded the app across both years average as 'mostly satisfied' (M = 3.89, SD = 1.07).

Table 8 - Overall, How Satisfied are you with the Event App

Overall, how satisfied are you with the event app?		Frequency	Percent
Valid	1	16	2.9
	2	34	6.2
	3	89	16.2
	4	159	29.0
	5	155	28.2
	Total	453	82.5
Missing	System	96	17.5
Total		549	100.0

11.2.5 Timing of Download (Multiphasic Nature)

Table 9 shows that more than half of participants downloaded the app within a month of event week (56.3%), and almost a quarter had downloaded it more than a year ago (23.7%) highlighting the repeat nature of the experience as a sporting pilgrimage for many. Nearly a quarter downloaded the app during the event week (23.9%).

Table 9 - Percentage of Participants by Time Point of Downloading the App

When did you download the app?		Frequency	Percent
Valid	Race Day	98	17.9
	During Event Week	108	19.7
	Month before event week	75	13.7
	More than 1 year	107	19.5
	Week before event week	91	16.6
	Within 1 year	20	3.6
	Within 6 months of event week	50	9.1
	Total	549	100.0

11.2.6 Online Information Seeking Post Download from Event Website

Overall data revealed that most participants returned to the event website (see table 10 below) for further information after downloading the related app (324, i.e. 71.6%), and the rest did not return to the event website for further information (128 participants, i.e. 28.4%).

Table 10 Once downloaded, did you return to the event website for information

Once you downloaded the app, did you return to the event website for information?		Frequency	Percent
Valid	No	128	23.3
	Yes	324	59.0
	Total	452	82.3
Missing	-99	97	17.7
Total		549	100.0

As is evident from table 11 below, more than half of participants reported that the app helped them research the event’s local area (256, i.e. 56.8%).

Table 11 - Has the App Helped you Research the Local Area

Has the app helped you research the local area?		Frequency	Percent
Valid	No	195	35.5
	Yes	256	46.6
	Total	451	82.1
Missing	-99	98	17.9
Total		549	100.0

11.2.7 Perspectives of the Event App

Overall, across both events and over the two-year period, the event application was helpful in enhancing the overall event experience of participants with 63% of those surveyed (284) reporting that the app downloaded was helpful.

Most of the survey participants who installed an app would have liked information on event merchandise to have been provided on the app (329, i.e. 72.9%). Table 12 below provides further detail.

Table 12 - Information on NW200 Merchandise on The App

Would you have liked information on NW200 merchandise on the app?		Frequency	Percent
Valid	No	167	30.4
	Yes	357	65.0
	Total	524	95.4
Missing	System	25	4.6
Total		549	100.0

When assessing the overall picture of both years and both events, table 13 shows that approximately a quarter of survey participants described the app as useful. Some 12% describe the app as reliable, and 8.6% describe it as of high quality. 2.9% of surveyed participants claim the app as unique. Overall, very few participants described the event app, which they had downloaded, negatively. Those that did selected survey responses of ineffective (4.9%), of poor quality (2.7%), unreliable (1.6%), or impractical (0.5%)

Table 13 - Participant Descriptions of Application by Certain Adjective

Which of the following words would you use to describe the event app?		Frequency	Percent
Valid	Poor Quality	15	2.7
	Impractical	3	.5
	Ineffective	27	4.9
	Unreliable	9	1.6
	Reliable	38	6.9
	Unique	16	2.9
	Useful	130	23.7
	High Quality	47	8.6
	Total	285	51.9
Missing	System	264	48.1
Total		549	100.0

11.2.8 Event App Recommendation Willingness

Table 14 reveals that overall, more than half would definitely or very probably be recommending the event app. Broken down further, more than a third of survey participants who answered the related question would 'definitely' recommend the event app to a friend or colleague (114, i.e. 39.4%). The valid percentages of participants who would very probably,

probably, possibly, probably not, or definitely not recommend the app are not much different (from 9.7% for probably not, to 14.2% for very probably).

Table 14 - How Likely is it That You Would Recommend the Event App

How likely is it that you would recommend the event app to a friend or colleague?		Frequenc	Percent	Valid Percent
		y		
Valid	Definitely Not	31	5.6	10.7
	Probably Not	28	5.1	9.7
	Possibly	38	6.9	13.1
	Probably	37	6.7	12.8
	Very Probably	41	7.5	14.2
	Definitely	114	20.8	39.4
	Total	289	52.6	100.0
Missing	System	260	47.4	
Total		549	100.0	

11.3 Event Apps: Overall Comparative Data 2 years

As mentioned previously, both events have apps which are published in both Apple's app store and google's android play store. See table 15 below for download statistics relating to this. The apps are built on the BiznessApps platform which is an app publishing and content management system that accounts for 5% of all apps in Apple's app store (Tepper, 2015). The platform has an analytics hub which has been used to extract data relating to app downloads, app sessions, features used and average time in-app.

Firstly, the focus is on an initial look at app downloads by device type across each year and event. This is useful as an indication of participation in the events' formal digital experience. It is critical to highlight that the app for Event 1 had been publicised on the event website in year one but after an overhaul of the website in year two it did not feature. According to Burrough et al. (2017, p.9), when asked in their survey "*how did you find out about this event?* ", 21% of respondents answered that the northwest200.org

website was their point of information. Therefore, nearly a quarter of respondents may have been unaware of the app in year 2.

In relation to the significant growth of Event 2 in year 2, it must be noted that a high percentage of apps have been downloaded in China in year 2. No attendees from our survey sample (n200) across either year are from China suggesting an app bot at play as data also revealed no app use by this demographic. This spike in downloads could have easily been construed as realistic given the 10+% growth year on year in visitors from China, but interrogation of the data and discussions with platform support ruled this out.

Table 15 - Analysis of App Downloads Across Both Events and Years

App downloads across both events and years	Year 1		Year 2		Total
	Apple	Android	Apple	Android	
Event 1 (NW200)	3084 (35.3%)	2038 (23.3%)	1901 (21.7%)	1719 (19.7%)	8742 (100%)
Event 2 (CC Golf)	243 (30.8%)	91 (11.5%)	278 (35.2%)	178 (22.5%)	790 (100%)

*Percentages are shown in parentheses.

11.3.1 Event Apps and Engagement

Of much more note about the impact of co-creation on app, use is in relation to the volume of sessions engaged in which can be assessed in table 16 below. We can see an increase in the number of total sessions for Event 1 even though there was a decrease in app downloads of 14% for iOS and 3.6% Android.

The updates made to Event 2's app and the awareness created in the prior year through 'in person' surveying must also be considered as contributing factors to the growth in sessions there. Event 2 increased downloads by 4.4% iOS and 11% Android between year 1 and 2 and increased engagement through sessions by 12.3% iOS and 10.6% for Android devices.

Table 16 - Analysis of Total of Sessions On iOS and Android Devices by Year for Each Event

Sessions on iOS and Android	Year 1		Year 2		Total
	Apple	Android	Apple	Android	
Event 1 (NW200)	22974 (27.8%)	17490 (21.2%)	23260 (28.2%)	18891 (22.8%)	82615 (100%)
Event 2 (CC Golf)	4135 (27.3%)	1701 (11.2%)	5985 (39.6%)	3303 (21.8%)	15124 (100%)

*Percentages are shown in parentheses.

Critically, it can be argued that engagement in both apps has increased significantly between year 1 and year 2. Presenting evidence of users seeking to satisfy their informational, integrational, entertainment and identity needs as outlined in the earlier projective reflective analysis in chapter 5.

11.4 Within Event Comparison – Cross-Sectional Study Employing Two Time Points - Year 1 and Year

As highlighted earlier in this chapter, most people surveyed across events 1 and 2 in both years downloaded the application (451, i.e. 82.1%), and 17.7% (97) didn't. Event 1 participants (349 - 63.6%) were all pre-qualified as app users through a specific targeting and pre-survey opt-in via Facebook. Those who downloaded the app across both years average as 'mostly satisfied' (M = 3.89, SD = 1.07).

Table 17 below presents the descriptive trends in these and other measures which will be discussed in the following paragraph.

Table 17 - Comparison Mean, Median, Standard Deviation, Range, Variance, Skewness and Kurtosis

Event 1			Event 2		
2. Overall, how satisfied are you with the event app?			2. Overall, how satisfied are you with the event app?		
N	Valid	349	N	Valid	104
	Missing	0		Missing	96
Mean		3.80	Mean		4.20
Std. Error of Mean		.060	Std. Error of Mean		.078
Median		4.00	Median		4.00
Mode		5	Mode		4
Std. Deviation		1.125	Std. Deviation		.793
Variance		1.266	Variance		.629
Skewness		-.737	Skewness		-.856
Std. Error of Skewness		.131	Std. Error of Skewness		.237
Kurtosis		-.178	Kurtosis		.446
Std. Error of Kurtosis		.260	Std. Error of Kurtosis		.469
Range		4	Range		3
Minimum		1	Minimum		2
Maximum		5	Maximum		5

Regarding mean value, Event 1 is lower and has a higher standard deviation both from Event 2 and in terms of both events combined indicating a greater variance in satisfaction. This is a useful backdrop before carrying out tests of significance through our first hypothesis tests – H1a and H1b:

H1a: There will be significant differences between year 1 and year 2 in relation to satisfaction for event 1

H1b: There will be significant differences between year 1 and year 2 in relation to satisfaction for event 2

11.4.1 Satisfaction with The Event App

11.4.1.1 Hypothesis 1a – Significance

Focusing on Event 1 firstly, there is a clear decrease in dissatisfaction by Year 2 as well as an increase in Satisfaction. In terms of significance, the following table relates that there is a significant difference.

A chi-square test for independence (with Yates' Continuity Correction) was conducted between event year and overall satisfaction with the event app. All expected cell frequencies were greater than five. There was a statistically significant association between event year and overall satisfaction with the event app evidenced through the Chi-Square test for independence ($\chi^2(1, n = 349) = 19.4, p = .001$; Cramer's $V = .24$).

Significant to this result are the rise from 25.3% in Event 1 Year 1 for Very Satisfied (5) to 40.7% in Year 2 and the drop from 8.2% in Year 1 for Very Dissatisfied (1) to 0.6% in Year 2. Therefore, following the Chi-Square tests where values are less than .05, a rejection of the null hypothesis for H1a is appropriate meaning significant difference is present. Table 18 below presents overall satisfaction in Event 1 across both years:

Table 18 - Overall Satisfaction in Event 1 Across Both Years

Overall, how satisfied are you with the event app?		Very Dissatisfied = 1/Very Satisfied = 5					Total
		1	2	3	4	5	
Event1	Count	15	19	43	59	46	182
Yr1	Expected Count	8.3	15.6	40.2	58.4	59.4	182.0
	% within Group Membership	8.2%	10.4%	23.6%	32.4%	25.3%	100.0%
Event1	Count	1	11	34	53	68	167
Yr2	Expected Count	7.7	14.4	36.8	53.6	54.6	167.0
	% within Group Membership	0.6%	6.6%	20.4%	31.7%	40.7%	100.0%

11.4.1.2 Event 2: Satisfaction with The Event App

Turning to Event 2, there is no change in relative dissatisfaction but an increase in satisfaction as evidenced by the higher selection of scores of 4 and 5.

11.4.1.3 Hypothesis 1b – Significance

Regarding significance, although (as table 19 highlights) there is a minor increase in overall satisfaction of 4.8% for cases choosing the score of (4), there is no significant difference within Event 2 between year 1 and year 2 about satisfaction with the event app. This is in terms of the Chi-Square test of significance, and thus the null hypothesis for H1b can be retained meaning there is no significant difference between year 1 and year 2.

Table 19 - Overall Satisfaction in Event 2 Across Both Years

Overall, how satisfied are you with the event app?		Very Dissatisfied = 1/Very Satisfied = 5				Total
		2	3	4	5	
Event2 Yr1	Count	2	6	20	19	47
	Expected Count	1.8	5.4	21.2	18.5	47.0
	% within Group Membership	4.3%	12.8%	42.6%	40.4%	100.0%
	% of Total	1.9%	5.8%	19.2%	18.3%	45.2%
Event2 Yr2	Count	2	6	27	22	57
	Expected Count	2.2	6.6	25.8	22.5	57.0
	% within Group Membership	3.5%	10.5%	47.4%	38.6%	100.0%

11.4.2 Enhanced Event Experience

In further exploring differences – the following hypotheses were conceived to assess whether co-creation of the event app experience would impact other critical dimensions of event app use. Thus, the following were proposed to evaluate group differences between year one and year two which followed two different procedures of app improvement (co-creative process on Event 1 and customer feedback survey for Event 2).

H2a: There will be differences between year 1 and year 2 in relation to enhanced experience for event 1

H2b: There will be differences between year 1 and year 2 in relation to enhanced experience for event 2

The question posed to participants was “*Did the event app enhance your overall event experience?*”

11.4.2.1 Hypothesis 2a – Significance

A Chi-Square test for independence (with Yates’ Continuity Correction) was conducted between event year and overall satisfaction with the event app. All expected cell frequencies were greater than five. There was a statistically significant association between event year and event app enhancing overall event experience ($\chi^2 (1, n 349) = 5.4, p = .02; \text{phi} = .13$).

Significant to this result are the rise of 12.9% between groups tested within Event 1 Year 1 for yes and an equal drop (12.9%) in negative answers.

Therefore, following the Chi-Square tests where values are less than .05, a rejection of the null hypothesis for H2a is appropriate meaning significant difference is present.

Table 20 highlights group differences within event between year 1 and year 2.

Table 20 - Event 1 - Did the Event App Enhance Your Overall Event Experience

Did the event app enhance your overall event experience?		No	Yes	Total
Event1	Count	91	91	182
Yr1	Expected Count	79.8	102.2	182.0
	% within Group Membership	50.0%	50.0%	100.0%
Event1	Count	62	105	167
Yr2	Expected Count	73.2	93.8	167.0
	% within Group Membership	37.1%	62.9%	100.0%

11.4.2.2 Event 2: Enhanced Event Experience

Turning again to Event 2, there is no change in significance in relation to the event app enhancing the event experience for groups with an equal positive increase and decrease of 3.5%.

11.4.2.3 Hypothesis 2b – Significance

Regarding significance, there is no significant difference within Event 2 between year 1 and year 2 about enhancing your overall event experience in terms of the Chi-Square test of significance, and thus the null hypothesis for H2b can be retained meaning there is no significant difference between year 1 and year 2. Table 21 below presents the data relating to whether the event app enhanced the overall event experience for Event 2 users.

Table 21 - Event 2 - Did the Event App Enhance Your Overall Event Experience

Did the event app enhance your overall event experience?		No	Yes	Total
Event2	Count	7	38	45
Yr1	Expected Count	6.1	38.9	45.0
	% within Group Membership	15.6%	84.4%	100.0%
Event2	Count	7	51	58
Yr2	Expected Count	7.9	50.1	58.0
	% within Group Membership	12.1%	87.9%	100.0%

11.4.3 Perception of the App

As with other indicators, the following hypotheses were conceived to assess whether co-creation of the event app experience would impact other critical dimensions of event app use. To evaluate group differences between year one and year two which followed two different procedures of app improvement (co-creative process on Event 1 and customer feedback survey for Event 2) – the following hypotheses were developed.

H3a: There will be differences between year 1 and year 2 in relation to description of app for event 1

H3b: There will be differences between year 1 and year 2 in relation to description of app for event 2

The following question was served to survey participants in year 1 and year 2:

Which of the following words would you use to describe the event app?

Unique | Useful | Ineffective | High Quality | Impractical | Reliable | Unreliable | Poor Quality

To test for association, the positive words were recoded into 'positive' and the negative words recoded to 'negative'.

11.4.3.1 Hypothesis 3a – Significance

In assessing Event 1, there is an equal decrease in negative and increase in the positive description of the event app of 9.9% in Year 2. Regarding significance, a Chi-Square test for independence (with Yates' Continuity Correction) was conducted between event year and overall perception of the app regarding negative and positive perspectives of the app. All expected cell frequencies were greater than five (see above). There was a statistically significant association between event year and description of the event app, ($\chi^2 (1, n 349) = 4.2, p = .04; \phi = .12$).

Therefore, following the Chi-Square tests where values are less than .05, a rejection of the null hypothesis for H3a is appropriate meaning significant difference is present.

Table 22 highlights group differences within event between year 1 and year 2.

Table 22 - Event 1 Which of The Following Words Would You Use to Describe The Event App

Which of the following words would you use to describe the event app?		Negative	Positive	Total
Event1	Count	53	129	182
Yr1	Expected Count	44.3	137.7	182.0
	% within Group Membership	29.1%	70.9%	100.0%
Event1	Count	32	135	167
Yr2	Expected Count	40.7	126.3	167.0
	% within Group Membership	19.2%	80.8%	100.0%

11.4.3.2 Event 2: Perception of the App

Focusing on Event 2, there is no change in significance about the perception of the event app for groups with an equal positive increase and decrease of 3.5%.

11.4.2.3 Hypothesis 3b – Significance

As is highlighted through table 23, there is no significant difference within Event 2 between year one and year two in relation to how participants describe the event app in terms of the Chi-Square test of significance. Thus the null hypothesis for H2b can be retained meaning there is no significant difference between year 1 and year 2.

Table 23 - Event 2 Which of The Following Words Would You Use To Describe The Event App

Which of the following words would you use to describe the event app?		Negative	Positive	Total
Event2	Count	0	45	45
Yr1	Expected Count	.4	44.6	45.0
	% within Group Membership	0.0%	100.0%	100.0%
Event2	Count	1	57	58
Yr2	Expected Count	.6	57.4	58.0
	% within Group Membership	1.7%	98.3%	100.0%

11.4.4 Willingness to Pay

Willingness to pay for the app was assessed due to the importance of it as a measure of co-creation outcomes other than satisfaction (Dwyer et al., 2011).

The following hypotheses were conceived to assess whether co-creation of the event app experience would impact other critical dimensions of event app use. Thus, the following were proposed to evaluate group differences between year one and year two which followed two different procedures of app improvement (co-creative process on Event 1 and customer feedback survey for Event 2).

H4a: There will be differences between year 1 and year 2 in relation to willingness to pay for the event app at event 1

H4b: There will be differences between year 1 and year 2 in relation to willingness to pay for the event app at event 2

The question posed to participants was “*would you be willing to pay for the app?*”

11.4.4.1 Hypothesis 4a – Significance

In assessing Event 1, there is an equal decrease in negative and increase in positive willingness to pay for the event app of 9.7% in year 2. Regarding significance, a chi-square test for independence (with Yates' Continuity Correction) was conducted between event year and overall willingness to pay for the event app. All expected cell frequencies were greater than five (see above). There was a statistically significant association between event year and willingness to pay for the event app, ($\chi^2 (1, n 349) = 3.8, p = .05; \text{phi} = .11$).

Therefore, following the Chi-Square tests where values are less than .05, a rejection of the null hypothesis for H4a is appropriate meaning significant difference is present.

The following (Table 24) highlights group differences within event between year 1 and year 2.

Table 24 - Event 1 - Would You Be Willing to Pay for The App

Would you be willing to pay for the app?		No	Yes	Total
Event1	Count	143	39	182
Yr1	Expected Count	134.5	47.5	182.0
	% within Group Membership	78.6%	21.4%	100.0%
Event1	Count	115	52	167
Yr2	Expected Count	123.5	43.5	167.0
	% within Group Membership	68.9%	31.1%	100.0%

11.4.4.2 Event 2: Willingness to Pay

Focusing on Event 2, there is no change in significance about willingness to pay for the event app for groups with an equal positive increase and decrease of 0.1%.

11.4.4.3 Hypothesis 4b – Significance

In assessing Event 2, willingness to pay for the event app has decreased by 0.1% from year 1 to Year 2. Regarding significance, a Chi-Square test for association was conducted between event year and willingness to pay for the event app. There is no significant difference to report regarding the Chi-Square test of significance, and thus the null hypothesis for H4b can be retained meaning there is no significant difference between year 1 and year 2. Table 25 below presents these findings.

Table 25 - Event 2 - Would You Be Willing to Pay for The App

Would you be willing to pay for the app?		No	Yes	Total
Event2	Count	55	17	72
Yr1	Expected Count	55.0	17.0	72.0
	% within Group	76.4%	23.6%	100.0%
	Membership			
Event2	Count	78	24	102
Yr2	Expected Count	78.0	24.0	102.0
	% within Group	76.5%	23.5%	100.0%
	Membership			

11.4.5 Information Search

Information search is a critical factor in event app use as evidenced by Luxford and Dickinson (2015). The following hypotheses were conceived to assess whether co-creation of the event app experience would impact other critical dimensions of event app use. Thus, the following were proposed to evaluate group differences between year one and year two which followed two different procedures of app improvement (co-creative process on Event 1 and customer feedback survey for Event 2).

H5a: There will be differences between year 1 and year 2 in relation to returning to the event website for information at event 1

H5b: There will be differences between year 1 and year 2 in relation to returning to the event website for information at event 2

The question posed to participants was “once you downloaded the app, did you return to the event website for information?”

11.4.5.1 Hypothesis 5a – Significance

In assessing Event 1, following app download, there is a decline in returning to the event website for information of 3.4% from year 1 to Year 2. Regarding significance, a Chi-Square test for independence (with Yates’ Continuity Correction) was conducted between event year and whether users returned to the event website for information following app download. There is no significant difference to report regarding the Chi-Square test of significance, and thus the null hypothesis for H5a can be retained meaning there is no significant difference between year 1 and year 2.

The following (Table 26) highlights group differences within event between year 1 and year 2.

Table 26 - Event 1 – Once Downloaded, Did You Return to The Event Website For Information

Once you downloaded the app, did you return to the event website for information?		No	Yes	Total
Event1	Count	45	137	182
Yr1	Expected Count	48.0	134.0	182.0
	% within Group Membership	24.7%	75.3%	100.0%
Event1	Count	47	120	167
Yr2	Expected Count	44.0	123.0	167.0
	% within Group Membership	28.1%	71.9%	100.0%

11.4.5.2 Hypothesis 5b – Significance

In assessing Event 2, following app download, there is a decline in returning to the event website for information of 3.4% from year 1 to Year 2. Regarding significance, a Chi-Square test for association was conducted between event year and whether users returned to the event website for information following app download. There is no significant difference to report regarding the Chi-Square test of significance, and thus the null hypothesis for H5b can be retained meaning there is no significant difference between year 1 and year 2.

11.4.6 Research of Local Area

Focusing most specifically on information search related to the local area and mediated by the event mobile app, the study posited the following Hypotheses:

H6a: There will be differences between year 1 and year 2 in the app helping research the local area in event 1

H6b: There will be differences between year 1 and year 2 in the app helping research the local area in event 2

11.4.6.1 Hypothesis 6a – Significance

Focusing on Event 1, there is a modest increase of 7.9% from year 1 to Year 2 of participants agreeing that the app has helped them research the local area. Regarding significance, a Chi-Square test for independence (with Yates' Continuity Correction) was conducted between event year and whether the app helped participants research the local area. There is no significant difference to report regarding the Chi-Square test of significance, and thus the null hypothesis for H6a can be retained meaning there is no significant difference between year 1 and year 2. The following (Table 27) highlights responses of whether the app has helped research local area within event between year 1 and year 2.

Table 27 - Event 1 – Has the App Helped You Research the Local Area

Has the app helped you research the local area?		No	Yes	Total
Event1	Count	83	99	182
Yr1	Expected Count	76.1	105.9	182.0
	% within Group Membership	45.6%	54.4%	100.0%
Event1	Count	63	104	167
Yr2	Expected Count	69.9	97.1	167.0
	% within Group Membership	37.7%	62.3%	100.0%

11.4.6.2 Event 2: Research Local Area

Focusing on Event 2, there is no change in significance about the event app enhancing the event experience for groups with a 5% decrease in participants agreeing that the app has helped them research the local area.

11.4.6.3 Hypothesis 6b – Significance

Finally, focusing on Event 2, there is a slight decrease of 0.5% from year 1 to Year 2 of participants agreeing that the app has helped them research the local area. Regarding significance, a Chi-Square test for independence (with Yates' Continuity Correction) was conducted between event year and whether the app helped participants research the local area. There is no significant difference to report regarding the Chi-Square test of significance, and thus the null hypothesis for H6b can be retained meaning there is no significant difference between year one and year two (see table 28 below).

Table 28 - Event 2 – Has the App Helped You Research The Local Area

Has the app helped you research the local area?		No	Yes	Total
Event2	Count	20	24	44
Yr1	Expected Count	21.1	22.9	44.0
	% within Group Membership	45.5%	54.5%	100.0%
Event2	Count	29	29	58
Yr2	Expected Count	27.9	30.1	58.0
	% within Group Membership	50.0%	50.0%	100.0%

11.4.7 Overview of Initial Hypotheses

Overall, focusing on Event 1, significant difference across several measures (see table 29 below) were recorded. To further explore these differences where data met assumptions for further analysis, an exploration of gender in each context between Event 1 Yr1 and Yr2 follows:

Table 29 Hypotheses and Significance

Hypotheses	Event 1	Event 2
<i>H1: There will be significant differences between year 1 and year 2 in relation to satisfaction</i>	(χ^2 (1, n 349) = 19.4, p = .001; Cramer's V = .24)	Not Significant
<i>H2: There will be differences between year 1 and year 2 in relation to enhanced experience</i>	(χ^2 (1, n 349) = 5.4, p = .02; phi = .13)	Not Significant
<i>H3: There will be differences between year 1 and year 2 in relation to description of app</i>	(χ^2 (1, n 349) = 4.2, p = .04; phi = .12)	Not Significant
<i>H4: There will be differences between year 1 and year 2 in willingness to pay for the event app</i>	(χ^2 (1, n 349) = 3.8, p = .05; phi = .11)	Not Significant
<i>H5a: There will be differences between year 1 and year 2 in returning to the event website</i>	Not Significant	Not Significant
<i>H6a: There will be differences between year 1 and year 2 in the app helping research the local area</i>	Not Significant	Not Significant

11.4.8 Event 1 Group differences based on Gender

As a means of deeper exploration of event one which had been reported across four measures as having statistically significant outcomes, the analysis proceeded with four new hypotheses to test whether gender had any significance within Event 1 in relation to the following:

H7: There will be significant differences between year 1 and year 2 in relation to satisfaction for event 1 by gender

H8: There will be differences between year 1 and year 2 in relation to enhanced experience for event 1 by gender

H9: There will be differences between year 1 and year 2 in relation to description of app for event 1 by gender

H10: There will be differences between year 1 and year 2 in willingness to pay for the event app at event 1 by gender

Following computation of all hypotheses, only H7 confirmed a significant gender difference and is reported as follows.

11.4.8.1 Gender and Satisfaction

Results present that there is a higher decrease in dissatisfaction within female participants by Year 2 (7.3% and 5.5% respectively for scores of 1 and 2) as well as an increase in satisfaction, particularly for scores of 5 (up 16.3%).

Regarding significance, a Fisher's Exact test was conducted between event year and overall satisfaction with the event app by gender.

The Fisher's was employed since not all cell frequencies were greater than five, nor representative of the 20% total suggested. 3 cells (30.0%) have expected count less than 5. Statistical analysis (two-sided Fisher's Exact test) confirmed significant differences between gender and overall satisfaction with the event app for year 2 evidenced as follows ((1, n 167) $p = .015$; Fisher's Exact Test.)

Table 30 presents overall satisfaction in Event 1 across both years by gender:

Table 30 - Overall, How Satisfied Are You with The Event App – By Gender

Overall, how satisfied are you with the event app?		1	2	3	4	5	Total
Event1	Male Count	10	16	30	43	25	124
Yr1	Expected Count	9.7	13.2	28.4	40.9	31.9	124.0
	% within Gender of Participants	8.1%	12.9%	24.2%	34.7%	20.2%	100.0%
	Female Count	4	3	11	16	21	55
	Expected Count	4.3	5.8	12.6	18.1	14.1	55.0
	% within Gender of Participants	7.3%	5.5%	20.0%	29.1%	38.2%	100.0%
Event 1 Yr2	Male Count	1	11	23	39	38	112
	Expected Count	.7	7.4	22.8	35.5	45.6	112.0
	% within Gender of Participants	0.9%	9.8%	20.5%	34.8%	33.9%	100.0%
	Female Count	0	0	11	14	30	55
	Expected Count	.3	3.6	11.2	17.5	22.4	55.0
	% within Gender of Participants	0.0%	0.0%	20.0%	25.5%	54.5%	100.0%

11.4.8.2 Enhanced Experience

Research now focuses on enhanced experience and assessing whether there were differences between year 1 and year 2 in relation to enhanced experience for event 1 by gender. A rise from 50.9% to 67.3% is evident where females perceived the event app enhanced their overall experience between year 1 and year 2. Male perception also improved from 50.8% in year 1 to 60.7% in year 2. In terms of significance, a Chi-Square test for independence (with Yates' Continuity Correction) was conducted between event year and whether the event app enhanced the overall experience of 1 gender more than the other. There is no significant difference to report in terms of the Chi-Square test of significance and thus the null hypothesis

for H6a can be retained meaning there is no significant difference between gender perceptions (see table 31 below).

Table 31 - Did the Event App Enhance your Overall Event Experience – by Gender

Did the event app enhance your overall event experience?		No	Yes	Total
Event1 Yr1	Male Count	61	63	124
	Expected Count	61.0	63.0	124.0
	% within Group Membership	49.2%	50.8%	100.0%
	Female Count	27	28	55
	Expected Count	27.0	28.0	55.0
	% within Group Membership	49.1%	50.9%	100.0%
Event1 Yr2	Male Count	44	68	112
	Expected Count	41.6	70.4	112.0
	% within Group Membership	39.3%	60.7%	100.0%
	Female Count	18	37	55
	Expected Count	20.4	34.6	55.0
	% within Group Membership	32.7%	67.3%	100.0%

11.4.8.3 Event App Description

About gender differences within Event 1 in relation to H9: There will be differences between year one and year two about description of the app for event one by gender, the following is noted. Female positive description increased by 5.5% and male from 67.7% to 78.6% in year 2. There is no significant difference within Event 1 between gender about

how participants describe the event app. The Chi-Square test showed insignificant variance, and thus the null hypothesis for H9 can be retained meaning there is no significant difference in positive/negative perception of the app by gender in Event 1. See table 32 below.

Table 32 - Event 1: Which of The Following Would You Use to Describe the Event App – By Gender

Which of the following words would you use to describe the event app?		Negative	Positive	Total
Event1	Male Count	40	84	124
Yr1	Expected Count	35.3	88.7	124.0
	% within Group Membership	32.3%	67.7%	100.0%
	Female Count	11	44	55
	Expected Count	15.7	39.3	55.0
	% within Group Membership	20.0%	80.0%	100.0%
Event1	Male Count	24	88	112
Yr2	Expected Count	21.5	90.5	112.0
	% within Group Membership	21.4%	78.6%	100.0%
	Female Count	8	47	55
	Expected Count	10.5	44.5	55.0
	% within Group Membership	14.5%	85.5%	100.0%

11.4.8.4 Willingness to Pay

Finally, assessing hypothesis H10: There will be differences between year one and year two in willingness to pay for the event app at Event 1 by gender, the following is observed. Within the male sample, there is an

8.3% increase in willingness to pay in year two versus an increase of 12.7% in the female group, but overall, the Chi-Square test was insignificant meaning the hypothesis for H10 is retained.

The following (table 33) highlights group differences within event between year one and year two.

Table 33 - Event 1 - Would You Be Willing to Pay For The App – By Gender

Would you be willing to pay for the app?		No	Yes	Total
Event1 Yr1	Male Count	100	24	124
	Expected Count	97.7	26.3	124.0
	% within Group Membership	80.6%	19.4%	100.0%
	Female Count	41	14	55
	Expected Count	43.3	11.7	55.0
	% within Gender of Participants	74.5%	25.5%	100.0%
Event1 Yr2	Count	81	31	112
	Expected Count	77.1	34.9	112.0
	% within Group Membership	72.3%	27.7%	100.0%
	Female Count	34	21	55
	Expected Count	37.9	17.1	55.0
	% within Gender of Participants	61.8%	38.2%	100.0%