

**ONLINE SELF-DISCLOSURE ACROSS
CULTURES: A STUDY OF FACEBOOK USE
IN SAUDI ARABIA AND AUSTRALIA**

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Abstract

Over the past few years, online social networks (OSNs) have been growing rapidly, and are now a part of everyday life for most online users. User disclosure of information about themselves (self-discourse) in OSNs plays a vital role in the success and self-sustainability of OSNs. With the rapid global growth of OSNs, there is an increasingly important need to understand the culture and practices surrounding these social applications and their users' self-disclosure. This need is especially highlighted by the fact that the current understanding of this self-disclosure phenomenon is an overwhelmingly Western one. To address this need, this research aimed to gain a sophisticated understanding of self-disclosure on the Facebook OSN across two distinctive cultures, Saudi Arabia and Australia.

This study utilised an explanatory sequential mixed methods design, consisting of a quantitative phase followed by a qualitative phase. 659 Facebook users – 308 from Saudi Arabia and 351 from Australia – completed an online questionnaire. This questionnaire was followed by a series of semi-structured interviews with a sample of 20 Facebook users (12 Saudi Arabians and 8 Australians) who had previously participated in the quantitative phase of the research. The purpose of these follow-up interviews was to explore and elaborate on the results of the questionnaire analyses. The qualitative research phase also involved the analysis of a large number of responses to an open question in the online questionnaire (Saudi Arabia n=190, Australia n=201). Employing this mixed methods design was useful in gaining a holistic understanding and in-depth explanation of the research problem.

Findings from both quantitative and qualitative data reveal that cultural aspects affect users' self-disclosure on Facebook. In Saudi Arabia, for instance there are some social restrictions surrounding the development of desirable offline relationships, and people perceive Facebook as a platform that is free of such restrictions. Therefore, Saudi Arabians tend to be more open and free in their relationships on Facebook, self-disclosing more in order to initiate new and more desirable friendships. Australians, on the other hand, have fewer social restrictions surrounding the development of offline relationships; therefore, they tend to be more conservative on Facebook, and mainly use their profiles to maintain their offline contacts, more with family and close friends. This preferred and predominant use of Facebook, in turn, influences Australians' self-disclosure on Facebook, including the sharing of more offline activities and events with their friends.

This study's findings constitute a significant contribution to the body of knowledge relating to self-discourse in Facebook and similar OSNs. It provides a broad understanding of the types of information that people self-disclose on Facebook, identifies factors that have a significant influence (either positive or negative) on such disclosure, and explains how it is affected by one's national culture.

Table of Contents

Keywords	i
Abstract	ii
Table of Contents	iii
List of Figures	vii
List of Tables	viii
List of Abbreviations.....	x
Acknowledgements	xii
CHAPTER 1: INTRODUCTION	1
1.1 Introduction.....	1
1.2 Research Problems and Gaps.....	3
1.3 Research Aims	5
1.4 Research Questions.....	5
1.5 Research Significance and Benefits.....	6
1.6 Thesis Outline	7
CHAPTER 2: LITERATURE REVIEW	9
2.1 Self-disclosure: Background theory.....	9
2.1.1 Introduction and Definitions.....	9
2.1.2 Self-disclosure and Interpersonal Relationships.....	10
2.1.3 Measurement of Self-disclosure	13
2.1.4 Reciprocity of Self-disclosure	15
2.1.5 Computer-mediated Communication and Self-disclosure	16
2.2 National Culture: Background Theory.....	20
2.2.1 Introduction and Definitions.....	20
2.2.2 Models of National Culture	20
2.2.3 Cultural Differences in Self-disclosure.....	24
2.3 Saudi Arabia and Australia: cultural backgrounds.....	28
2.3.1 Characteristics of Saudi Arabian and Australian Culture	28
2.3.2 Application of Hall's and Hofstede's Cultural Models to Saudi Arabia and Australia	33
2.4 Online Social Networking: Background theory.....	37
2.4.1 Introduction and Definitions.....	37
2.4.2 Online Social Networks vs Other Computer-mediated Communication	39
2.4.3 Facebook and Social Networking	41
2.4.4 Relationship Development and Maintenance in Online Social Networks	44
2.4.5 Identity Performance in Social Network Profiles	48
2.4.6 Privacy in Online Social Networks.....	51
2.5 Study Model and Hypotheses	58
2.5.1 Factors Predicting Self-disclosure	59
2.5.2 Factors Mitigating Privacy Concerns	64
2.5.3 Summary.....	67
CHAPTER 3: METHODOLOGY	69
3.1 Research Design	69
3.1.1 Mixed Method Design.....	71
3.1.2 Sequential Explanatory Mixed Methods Research Design.....	73

3.2	Population and Sampling	78
3.2.1	Identification of the Population	78
3.2.2	Determination of the Sample Size	78
3.3	Data Collection	81
3.3.1	Instrumentation	81
3.3.2	Instructions and Guidelines for Instrument Design	82
3.3.3	The Questionnaire Content	83
3.3.4	The Follow-up Interview Content	87
3.3.5	Lottery Approach	88
3.4	Translation	88
3.5	Instrument Testing	89
3.5.1	Expert Panel Review	89
3.5.2	Pilot Testing	91
3.6	Procedure	92
3.7	Quantitative Phase Analysis	94
3.7.1	Data Entry	94
3.7.2	Case Screening	95
3.7.3	Statistical Software Selection	95
3.7.4	Statistical Analysis	95
3.8	Qualitative Phase Analysis	96
3.8.1	Thematic Analysis	96
3.8.2	Trustworthiness	98
3.8.3	Ethical Issues	99
CHAPTER 4: QUANTITATIVE PHASE RESULTS.....		100
4.1	Introduction	100
4.2	Data Preparation	100
4.3	Sample Profile	102
4.3.1	Gender Profile	104
4.3.2	Age Profile	104
4.3.3	Marital Status Profile	104
4.3.4	Education Profile	105
4.3.5	Employment Status Profile	105
4.3.6	Age of Facebook Account	105
4.3.7	Daily Facebook Usage	106
4.3.8	Number of Friends' Profile	106
4.3.9	Number of Groups	107
4.3.10	Visibility of Profile	107
4.4	Principal Component Analysis and Reliability Analysis	107
4.4.1	Self-disclosure	108
4.4.2	Maintaining Offline Relationships	115
4.4.3	Initiating New Relationships	117
4.4.4	Self-presentation	118
4.4.5	Reciprocity	120
4.4.6	Privacy Concerns	123
4.4.7	Anonymity	124
4.4.8	Secrecy	126
4.5	Confirmatory Factor Analysis for Self-disclosure	128
4.6	Descriptive Statistics	129
4.7	Differences in Demographic characteristics	131
4.7.1	Gender	131
4.7.2	Age	132
4.7.3	Marital Status	133
4.7.4	Education	135

4.7.5	Employment.....	136
4.7.6	Age of Facebook Account.....	137
4.7.7	Daily Use of Facebook.....	138
4.7.8	Friends' Number.....	139
4.7.9	Groups' Number.....	140
4.7.10	Profile Visibility.....	141
4.8	Full Model Testing with Structural Equation Modelling.....	142
4.8.1	Results of Testing for Structural Model Fit.....	143
4.8.2	Results from Hypotheses' Testing.....	144
4.9	Summary of the Quantitative Phase Result.....	149
CHAPTER 5: QUALITATIVE PHASE RESULTS.....		151
5.1	Introduction.....	151
5.2	Self-Disclosure.....	151
5.2.1	Personally Identifiable Information.....	152
5.2.2	Thoughts, Beliefs and Opinions.....	154
5.2.3	Expression of Feelings.....	158
5.2.4	Everyday Activities and Life-changing Events.....	163
5.3	Maintaining Offline Relationships.....	167
5.3.1	Strong Ties v Weak Ties.....	167
5.3.2	Maintaining Long-distance Relationships.....	169
5.3.3	Maintaining Tribal Relationships.....	171
5.4	Initiating New Relationships.....	171
5.4.1	Facebook as a Platform for Overcoming Social Life Restrictions.....	172
5.4.2	Sharing Mutual Friends.....	176
5.4.3	Perceived Loneliness.....	176
5.5	Self-Presentation.....	177
5.6	Reciprocity.....	178
5.7	Privacy Concerns.....	180
5.7.1	Outside Network Threats – Stranger Danger.....	180
5.7.2	Inside Network Threats: Friend Danger.....	185
5.7.3	Privacy Protection Strategies.....	187
5.8	Anonymity.....	191
5.8.1	Partial Anonymity.....	192
5.8.2	Full Anonymity.....	194
5.9	Secrecy.....	196
5.10	Summary of the Qualitative Results.....	198
CHAPTER 6: DISCUSSION.....		201
6.1	Introduction.....	201
6.2	Self-disclosure on Facebook across Saudi Arabian and Australian Participants.....	202
6.3	Factors Predicting Self-disclosure on Facebook.....	211
6.3.1	Maintain Offline Relationships.....	211
6.3.2	Initiating Relationships.....	215
6.3.3	Self-presentation.....	221
6.3.4	Reciprocity.....	224
6.3.5	Privacy Concerns.....	226
6.4	Factors Mitigating the Privacy Concerns of Self-disclosure.....	232
6.4.1	Anonymity.....	232
6.4.2	Perceived Secrecy.....	236
6.5	Conclusions.....	237
CHAPTER 7: CONCLUSIONS.....		241

7.1	Chapter Summaries.....	241
7.2	Contributions and Strengths of the Study	244
7.3	Implications for Practice.....	245
7.4	Study Limitations and Directions for Future Work	248
	BIBLIOGRAPHY	251
	APPENDICES	288
	Appendix A: Ethics Clearance for the Quantitative and Qualitative Study	288
	Appendix B: The Questionnaire Content.....	290
	Appendix C: Interview Content.....	294
	Appendix D: The Online Invitation	296
	Appendix E: Participant Information.....	298
	Appendix F: Questionnaire Dissemination Approaches.....	300
	Appendix G: Member Checking Process.....	301
	Appendix H: Examples of categorising and coding the qualitative data	303

List of Figures

Figure 1: Study's Theoretical Model.....	68
Figure 2: Visual framework of the procedures for the mixed methods sequential explanatory design of the study.....	78
Figure 3: Self-disclosure confirmatory factor analysis results showing standardised factor loadings	129
Figure 4: Structural equation model analysis results showing standardized factor loadings in the Australia and Saudi samples.....	148

List of Tables

Table 1 <i>High- and Low-context Countries</i>	21
Table 2 <i>Cultural Dimension Ratings of Saudi Arabia and Australia</i>	35
Table 3 <i>Characteristics of Quantitative and Qualitative Research Design</i>	71
Table 4 <i>Prototypical Characteristics of Explanatory Design</i>	74
Table 5 <i>Strengths and Weakness of the Explanatory Design Approach</i>	76
Table 6 <i>Quantitative Responses</i>	79
Table 7 <i>Interview vs. Questionnaire Surveys</i>	81
Table 8 <i>Example of Eliminated Items and Added Items</i>	90
Table 9 <i>Qualitative Participants</i>	94
Table 10 <i>The Six Main Steps in Thematic Analysis</i>	96
Table 11 <i>Case Screening Procedure Outcomes</i>	102
Table 12 <i>Demographic Characteristics</i>	102
Table 13 <i>Age of Facebook Accounts</i>	105
Table 14 <i>Daily Facebook Usage</i>	106
Table 15 <i>Number of Friends' Profile</i>	106
Table 16 <i>Groups' number</i>	107
Table 17 <i>Breadth: Self-disclosure Factor loading Results</i>	109
Table 18 <i>Breadth: Self-disclosure Reliability Analysis Results</i>	110
Table 19 <i>Depth: Self-disclosure Factor loading Results (7 Items)</i>	111
Table 20 <i>Depth: Self-disclosure Factor loading Results (5 Items)</i>	112
Table 21 <i>Depth: Self-disclosure Reliability Analysis Results (5 Items)</i>	112
Table 22 <i>Self-disclosure Factor loading Results (9 Breadth and Depth Items)</i>	113
Table 23 <i>Self-disclosure Factor loading Results (6 Breadth and Depth Items)</i>	114
Table 24 <i>Self-disclosure Reliability Analysis Results</i>	115
Table 25 <i>Offline Relationship Factor loading Results</i>	116
Table 26 <i>Offline Relationship Reliability Analysis Results</i>	116
Table 27 <i>Initiating Relationship Factor loading Results</i>	117
Table 28 <i>Initiating Relationship Reliability Analysis Results</i>	118
Table 29 <i>Self-presentation Factor loading Results</i>	119
Table 30 <i>Self-presentation Reliability Analysis Results</i>	120
Table 31 <i>Reciprocity Factor loading Results</i>	121
Table 32 <i>Reciprocity Reliability Analysis Results</i>	122
Table 33 <i>Privacy Factor loading Results</i>	123
Table 34 <i>Privacy Reliability Analysis Results</i>	124
Table 35 <i>Anonymity Factor loading results</i>	125
Table 36 <i>Anonymity Reliability Analysis Results</i>	126

Table 37 <i>Secrecy Factor loading results</i>	127
Table 38 <i>Secrecy Reliability Analysis Results</i>	128
Table 39 <i>Descriptive Statistics</i>	131
Table 40 <i>Gender Differences in Variables</i>	132
Table 41 <i>Correlation between Age and All Variables</i>	133
Table 42 <i>Marital Status Differences in Variables</i>	134
Table 43 <i>Correlation between Education and All Variables</i>	135
Table 44 <i>Employment Effect on Variables</i>	136
Table 45 <i>Correlation between Age of Facebook Account and Variables</i>	137
Table 46 <i>Correlation between Daily Facebook Usage and Variables</i>	138
Table 47 <i>Correlation between Number of Friends and All Variables</i>	140
Table 48 <i>Correlation between Number of Groups and All Variables</i>	141
Table 49 <i>Profile Visibility Effect on Variables</i>	142
Table 50 <i>Standardized Path Coefficient, P-value and Hypothesis Evaluation for the Australian and Saudi Arabian Samples</i>	147

List of Abbreviations

- OSNs: Online Social Networks
- CMC: Computer-mediated Communication
- UGC: User Generated Content
- SET: Social Exchange Theory
- SPT: Social Penetration Theory
- URT: Uncertainty Reduction Theory
- IT: Information Technology
- PCA: Principle Component Analysis
- CFA: Confirmatory Factor Analysis
- SEM: Structural Equation Modelling
- CPM: Communication Privacy Management Theory
- SPSS: Statistical Product and Service Solutions
- AMOS: Analysis of Moment Structures
- R²: R-squared
- SA: Saudi Arabia
- AU: Australia
- P: Participant
- IPA: Institute of Public Administration
- QUT: Queensland University of Technology
- GDS: General Disclosiveness Scale

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: QUT Verified Signature

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Chapter 1: Introduction

1.1 INTRODUCTION

Internet development, including online communication and information exchange, has become the new social, cultural and technological revolution of the 21st century. The development of the World Wide Web and its associated online facilities has led to an extraordinary leap in our ability to communicate, receive and use information from even the most remote corners of the world.

Online social networks (OSNs) such as Facebook are the most recent and important online communication tools. They are increasingly used in people's daily communication, and this communication has become one of our most important online activities (Cardon & Marshall, 2014; Chang & Heo, 2014). They have unique capabilities and provide the means for effective and low cost social communication and interaction with current, old, and new friends (Boyd & Ellison, 2007; Ellison, Steinfield, & Lampe, 2007).

OSNs also offer people great opportunities to establish and manage the online presentation of their personal identity (Boyd & Ellison, 2007; Michikyan, Subrahmanyam, & Dennis, 2014), giving them "a voice in a public space that they would never previously have had" (Smith & Holmes, 2011, p.1). In fact, the reason behind the success and popularity of OSNs compared to traditional ways of online information exchange is that they naturally involve their participants in creating and modifying online content. With low technical requirements, affordability, and 24 hour availability, they effectively and easily enable the self-production of content – a distinctive feature also known as 'User Generated Content' (UGC) (O'Reilly, 2009).

Self-disclosure is a psychological phenomenon that is defined as the act of releasing any information about oneself, in any form, to another person or persons (Wheless & Grotz, 1976). This disclosed information helps to make oneself known to other persons, and is an essential aspect of human behaviour in any society and/or culture (Chelune, 1979). Indeed, self-disclosure is a vital requirement for the development of successful interpersonal relationships: "A truly personal relationship between two people involves disclosure of self one to the other in full and

spontaneous honesty” (Jourard, 1971b, p.28). Chelune (1979, p.243) adds that “People cannot enter into social transactions with others without revealing something of themselves or being affected by what the others reveal to them”.

Because OSNs such as Facebook are mainly used for connecting with other users and developing effective interpersonal relationships, self-disclosure is an essential social behaviour to investigate in this context. In fact, the UGC that people usually generate on OSNs is most likely to be about themselves. This reflects the definition of the ‘self-disclosure’ phenomenon (Chen & Sharma, 2013) in the sense that OSN profiles are collections of information about the self that are shared by users. This information includes their personal details, thoughts, opinions, feelings, successes, fears, aspirations, and accounts of daily activities. Thus, while the opportunity for self-disclosure represents an important and attractive OSN asset (Bateman, Pike, & Butler, 2011; Trepte & Reinecke, 2010), “the benefits of SNS cannot be completely achieved” (Yanli, Yi, & Yuli, 2010, p.529) without users’ generous self-disclosure.

The literature in the fields of human psychology and communication highlights the importance of considering cultural differences when exploring self-disclosure behaviour (for example, Ignatius & Kokkonen, 2007; Kim & Papacharissi, 2003; Saeed, James, & Hassan, 2008; Zarzeski, 1996). It is suggested that a variety of norms and cultural expectations have an impact on the self-disclosure phenomenon, including its amount, types, methods and motivations. For example, individualistic values (as seen, for example, in Western societies) are suggested to be more associated with high self-disclosure than collectivistic values (as seen, for example, in Asian societies) (Ting-Toomey, 1991; Yum & Hara, 2005). A greater depth (quality and importance) of self-disclosure is also considered to be more characteristic of people with high collectivistic values, whereas a greater breadth (quantity and amount) of self-disclosure is considered to be more characteristic of people with high individualistic values (Wheless, Erickson, & Behrens, 1986). A high uncertainty avoidance culture is also reported to reduce the amount of self-disclosure (Bandyopadhyay, 2009). People in a ‘high context’ culture are found to self-disclose in a clearer and more direct manner than those in a ‘low context’ culture, who tend to use a more indirect and non-coded manner (Kim & Papacharissi, 2003).

This thesis provides a sophisticated understanding of individuals' self-disclosure on Facebook. A cross-cultural study was conducted to collect and analyse data from Facebook users in Saudi Arabia and Australia. A sequential explanatory mixed methods design (a quantitative study followed by a qualitative study) was employed to gain a comprehensive understating of the research problem. This understanding adds significant knowledge to the existing literature on the self-disclosure phenomenon in online communities, including OSNs.

1.2 RESEARCH PROBLEMS AND GAPS

Significant research efforts have focused on OSNs, their links to self-disclosure, and the potential for violation of user privacy and security (for example, Fogel & Nehmad, 2009; Govani & Pashley, 2007; Gross & Acquisti, 2005; Johnson, Egelman, & Bellovin, 2012; Nosko, 2011; O' Bien & Torres, 2012; Young & Quan-Haase, 2013). However, there has only been limited research and analysis of the specific impact of OSNs on people's self-disclosure.

Major questions about what people self-disclose on OSNs and the specific factors within OSNs that positively or negatively influence this self-disclosure require more investigation (Posey, Lowry, Roberts, & Ellis, 2010; Yang & Tan, 2012; Zhao, Hinds, & Gao, 2012). Answers to these questions are important to the optimal further development and international proliferation of OSNs in a safe and secure environment of responsible information exchange. Therefore, the lack of current studies in this area is a significant impediment to the successful and optimal management of OSNs.

OSNs, such as Facebook, have grown dramatically not just in Western and English-speaking countries, but around the world (Alexa.com., 2014). Most previous studies of self-disclosure on OSNs are based on samples drawn entirely from Western (usually American) college students (e.g. Bateman, et al., 2011; Bazarova & Choi, 2014; Chang & Heo, 2014; Krasnova, Spiekermann, Koroleva, & Hildebrand, 2010). This has resulted in an overwhelmingly Western understanding, and "little is known about how these systems are or might be used in different cultures" (Zhao, et al., 2012, p.67). In fact, researchers in human psychology describe Western and students populations as "narrow populations...[and] the least representative

populations one could find for generalizing about humans” (Henrich, Heine, & Norenzayan, 2010, p.2). Therefore, conducting studies that involve students and non-students in non-Western societies is important in balancing the current overwhelmingly and generalised Western understanding of self-disclosure on OSNs.

As a Saudi Arabian who lives in Australia, furthermore, I am aware of cultural differences that appear to have been completely ignored in previous studies of people’s behaviour and self-disclosure on OSNs such as Facebook. Most of these studies are homogeneous, focussing on a single (usually Western) population only. Such studies fail to capture the influences of cultural norms on people’s behaviour on OSNs, and lead to the assumption that people are universally the same.

While the current literature is lacking in cultural studies of OSN usage, it does, however, suggest the important need to examine the role that culture plays in the self-disclosure phenomenon (Chen & Nakazawa, 2010; Greene, Derlega, & Mathews, 2006; Markus & Kitayama, 1991), especially when it comes to the use of social media, including OSNs (Ur & Wang, 2013; Vitkauskaite, 2010; Zhao, et al., 2012). This cross-cultural (transnational) study addresses this need and provides a comprehensive understanding of how people with different cultural backgrounds behave and self-disclose on OSNs, and how their various cultural norms influence this behaviour and self-disclosure.

Previous studies of the use of OSNs and their associated self-disclosure activities have also tended to rely heavily on the use of quantitative methods alone. While these methods are useful for offering general explanations of the relationships among variables, they do not, on their own, provide a holistic and sophisticated understanding of the research issue (Creswell & Clark, 2010; Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2003). As Creswell & Clark (2010, p. 9) contend, such purely quantitative findings lack “detailed understanding of what the statistical tests or effect sizes actually mean”. A follow-up qualitative study can help build that understanding, providing a more in-depth explanation of the statistical results of the quantitative findings, and delivering a comprehensive picture of the research problem (Carr, 2009; Creswell & Clark, 2010; Gasiewski, Eagan, Garcia, Hurtado, & Chang, 2012; Ivankova, Creswell, & Stick, 2006).

To create a sophisticated and comprehensive understanding of the self-disclosure phenomenon on OSNs, therefore, this cross-cultural study employed a

sequential explanatory mixed methods design. The study began with a quantitative study to provide a general understanding of the information that people self-disclose on OSNs, and the factors that motivate or inhibit this self-disclosure. This was followed by a qualitative study that explored and explained the quantitative results in terms of the cultural influences that were brought to bear.

1.3 RESEARCH AIMS

The general aim of this research was to provide a sophisticated cross-cultural understanding of self-disclosure on OSNs, particularly Facebook. To this end, it identifies the amount and types of information that people self-disclose on OSNs, the factors that motivate and inhibit self-disclosure, and the influence of various cultural norms on this process. To achieve this sophisticated cross-culture understanding, a sequential explanatory mixed methods study was conducted across two distinctive national cultures, Saudi Arabian and Australian.

1.4 RESEARCH QUESTIONS

This study addresses the main research question: *How does self-disclosure on Facebook differ between Saudi Arabian and Australian cultures?*

To answer this question, a number of sub-questions were also formulated. These are as follows:

1. What is self-disclosure on Facebook?
2. What are the factors that influence self-disclosure on Facebook?
3. How does self-disclosure on Facebook, and the factors that influence it, differ between Saudi Arabian and Australian cultures?

1.5 RESEARCH SIGNIFICANCE AND BENEFITS

This study of self-disclosure is significant because the phenomenon is a major driving force in the successful development of OSNs (Chen & Sharma, 2013; Lam, Chen, & Chen, 2008; Pike, Bateman, & Butler, 2009; Sullivan, 2006). Indeed, without users' generous self-disclosure in virtual public spaces, OSNs will disappear (Trepte & Reinecke, 2010). The outcomes of this research enhance the current understanding of self-disclosure on Facebook and similar OSNs. It will thus assist OSN providers to improve users' use of these social applications and, in turn, both maintain and improve their success.

This research also aimed to increase our understanding of self-disclosure behaviour in Facebook across two distinctive cultures – the Saudi Arabian culture (representing Arabic and Islamic cultures) and Australian culture (representing Western cultures). The outcomes of this transnational study provide a more sophisticated understanding than that provided by previous OSN studies which have been mostly homogenous (that is, single population) studies with Western participants. Such an understanding also increases the 'cross-cultural awareness' of Facebook and similar OSN users and its bearing on their self-disclosure.

Lastly, employing sequential explanatory mixed methods design is significant on two main levels. As explained in section 1.2, the single method used in previous studies does not provide an in-depth explanation and understanding of this research problem. This study is the first to employ this design to comprehensively explore the self-disclosure phenomenon in OSNs. The second benefit of using this methodology is that there is "a dearth of mixed methods research in information systems"; indeed, only 3% of total information systems research (Venkatesh, Brown, & Bala, 2013, p.1) employs this approach.

More specifically, (Sheperis, Young, & Daniels, 2010) also note the general lack of use of sequential explanatory mixed methods. Venkatesh et al. (2013) suggest that the lack of available guidelines and instructions for conducting mixed methods research in information systems is one main reason for this. Therefore, this study

serves as a practical example of both the suitability and employability of sequential explanatory mixed methods design for research in the information systems field.

1.6 THESIS OUTLINE

Chapter 1 introduces this research study by outlining the existing research gap, defining the research aims, identifying the research questions and explaining the significance of the research. The remainder of the thesis is organised as follows.

Chapter 2 is comprised of five sections: 1) the theoretical background to the concept of self-disclosure, 2) the theoretical background to the notion of national culture and its impact on self-disclosure, 3) the theoretical background to the phenomenon of OSNs, 4) the national cultures of Saudi Arabia and Australia, and 5) the research model.

Chapter 3 presents the research method used to conduct this study. The literature on the research methodology is reviewed in this chapter and a justification for the selected method is provided. The research plan and approach are also discussed. The chapter also explains the project implementation and its data collection and analysis techniques.

Chapter 4 presents the findings of the quantitative research phase. It presents the results of the questionnaire and the associated statistical procedure.

Chapter 5 presents the findings of the qualitative research phase. Specifically, it presents the results of the follow-up interviews, the open question data entries in the online questionnaire, and the related themes.

Chapter 6 discusses the combined results of the quantitative and qualitative research phases. It also discusses how these results relate to the existing literature in the area.

Chapter 7 summarises the key research findings, highlights the study's research contribution, and explores its implications for practice. Finally, this chapter outlines the limitations of the current study and suggests areas for further research.

Chapter 2: Literature Review

2.1 SELF-DISCLOSURE: BACKGROUND THEORY

2.1.1 Introduction and Definitions

The concept of self-disclosure has a long history. It is a cross-disciplinary phenomenon, which has been investigated in several disciplines, including psychology, human communication, and sociology (Archer & Burleson, 1980; Chen, Chen, Lo, & Yang, 2008; Jourard, 1964). This study adopts the term “self-disclosure” because, according to Cozby (1973, p.73), “(a) it is the most commonly used term in the literature, and (b) the term refers to both a personality construct and a process which occurs during interaction with others”.

A large number of definitions have been used in the literature to describe this concept of self-disclosure, that is, disclosure of information about the self. These include the terms “social accessibility” (Rickers-Ovsiankina, 1956), “self-disclosure” (Jourard, 1964), and “verbal accessibility” (Polansky, 1965). Jourard and Lasakow (1958) refer to self-disclosure as “the process of making the self known to other persons” (p.91). Cozby (1973) also defines it as “any information about himself [or herself] which person A communicates verbally to person B” (p.73). A similar definition is provided by Wheelless and Grotz (1976, p.40), who describe self-disclosure as “any message about the self that a person communicates to another”. This includes the communication of personal information, thoughts, opinions, feelings, actions or any other information that makes the self-known to other persons (Archer, 1980; Derlega, Metts, Petronio, & Margulis, 1993; Qian & Scott, 2007). Other researchers (Culbert, 1968; Petronio, 2002), however, limit the definition of self-disclosure to the revelation of one’s private and sensitive information that would not normally be freely disclosed.

A typical way to self-disclose is to make statements about oneself in either speech or writing. However, self-disclosure can also occur in a symbolic manner. For example, it can occur through the wearing of symbols (such as a wedding ring to show one’s relationship status or the wearing of a cross to indicate religious allegiance); through body language (such as smiling, laughing, kissing, hugging or

handshaking); through body tattoos that reflect one's emotional attachment or other personal information; and through the type and style of one's clothing and/or hairstyle, and so on (Derlega & Barbara, 1997; West & Turner, 2010).

All of these different self-disclosure pathways are reflected in another definition of self-disclosure as disclosure of "any information about the self that is intentionally or unintentionally communicated to another person (or others) through verbal or nonverbal messages" (McCroskey & Richmond, 1977, p.40). This comprehensive definition of self-disclosure is adopted for use in this study.

Self-disclosure usually occurs during communication between two people, within groups, or between an individual and an organisation (Joinson & Paine, 2007). Disclosure between two people, for example in a romantic relationship, can serve to enhance understanding, and to build trust and an overall sense of intimacy (Gibbs, Ellison, & Heino, 2006; Greene, et al., 2006; Laurenceau, Barrett, & Pietromonaco, 1998). Within a group, self-disclosure enhances trust among group members and strengthens group identity. Joinson and Pain (2007) suggest that even the sharing of a negative identity – such as 'I am an alcoholic' within a support group for alcoholics – can help to increase the level of trust and "act as a membership card for a particular group" (Joinson & Paine, 2007, p.235). Finally, disclosure between individuals and organisation helps with personal authentication, and can be used for marketing purposes (Joinson & Paine, 2007). For instance, when an individual creates an account with a company, he/she usually submits some personal information to authenticate and establish their identity. The company can then use these details to personalise their offers and future communication with that individual.

2.1.2 Self-disclosure and Interpersonal Relationships

Several theories and perspectives are used to explain and signify the important role that self-disclosure plays in developing successful personal relationships (for example, Altman & Taylor, 1973; Derlega, et al., 1993; Jourard, 1971a; McAdams, Healy, & Krause, 1984; Parks & Floyd, 1996; Perlman & Fehr, 1987; Yum & Hara, 2005). In fact, a new relationship begins with the exchange of general personal information, and the more self-disclosure that occurs, the more trusting and intimate the relationship that is developed (Tardy & Dindia, 1997).

Social exchange theory (SET) (Thibaut & Kelley, 1959) is one of the primary and oldest theories of social behaviour, which describe the process of interpersonal relationship formation and development. SET holds that social relationships are much like economic relationships, where individuals usually decide whether to pursue or avoid a particular relationship after reviewing and weighing its rewards (benefits) and costs (risks). Relationship rewards refer to the benefits and support that individuals gain by developing the relationship, including companionship, affection, social support, or task-related benefits. Relationship costs, on the other hand, refer to the relationship's negative elements, such as the loss of social independence or privacy concerns (Dainton & Zelle, 2010). Where the perceived risks outweigh the benefits, the relationship is most likely to be terminated.

SET is mainly used to describe and investigate relationship establishment and development, and is less focused on self-disclosure and its impact on relationship development. Social Penetration Theory (SPT) (Altman & Taylor, 1973), on the other hand, borrows the SET concept to investigate the influences and motivations of self-disclosure in relation to interpersonal relationships during the process of social penetration. In particular, SPT suggests that the perceived outcomes of any interpersonal relationship will play a significant role in motivating or demotivating self-disclosure. If an interaction is deemed safe, pleasant and useful, more self-disclosure is expected. If it is considered risky, on the other hand, the relationship will be evaluated according to its costs rather than its rewards or benefits.

SPT also suggests that relationships develop in a "gradual and orderly fashion from superficial to intimate levels of exchange as a function of both immediate and forecast outcomes" (Taylor & Altman, 1987, p.259). In this fashion, the amount of disclosure tends to increase with time, leading to higher levels of relationship satisfaction. SPT also identifies "each person's personality as a series of concentric layers (like an onion skin) ranging from public accessible levels through semiprivate levels to private-personal core levels (depth)" (Taylor & Altman, 1987, p.300). Access to these inner and private layers increases self-disclosure and the intimacy of the relationship.

The validity of penetration theory disclosure has been examined in many studies (for example, Chan & Cheng, 2004; Gibbs, et al., 2006; Kim & Mauborgne, 1998). These studies confirm that self-disclosure increases when a relationship is

perceived to be beneficial, and that this self-disclosure, in turn, plays an essential role in moving the relationships from the superficial to the intimate level. It follows then that individuals who aim to create long-term and substantial relationships engage in higher levels of self-disclosure.

The Uncertainty Reduction Theory (URT) (Berger and Calabrese, 1975) is another interpersonal communication theory that clearly discusses the importance of self-disclosure in developing relationships. It considers the initial high uncertainty between two or more persons (the result of the absence of a relationship or an undeveloped relationship) and the reduction of this uncertainty during the process of the relationship's development. This reduction is particularly essential in interpersonal relationship development, and is achieved as levels of self-disclosure, nonverbal warmth, shared similarities, and shared social networks increase.

Generally, self-disclosure is related to relationship uncertainty in two ways: the higher the level of self-disclosure, the less uncertainty in the respective relationship and, conversely, the stronger the uncertainty in a relationship, the lower the level of self-disclosure between the parties involved. URT clarifies, therefore, that in a relationship, self-disclosure reduces mutual uncertainty about thoughts and beliefs, and this, in turn, significantly encourages the relationship's development.

Liking for another person is also seen as a key element in the quality of an interpersonal relationship (Collins & Miller, 1994; Dindia, 2002), and the relationship between self-disclosure and liking in relationships is also discussed in the literature. For example, a meta-analysis involving 94 studies (Collins & Miller, 1994) confirmed that people tend to like other people who self-disclose to them, more disclosure occurs between individuals who like each other, and an individual tends to like another person as a result of having disclosed to that person. It follows, therefore, that there could be mutual causality between self-disclosure and liking; that is, each can have a positive impact on the other, and each can cause the other.

While there is universal agreement about the importance and positive influence of self-disclosure on successful relationship development, it can also be the cause of disturbance and risk in a relationship. The nature and timing of the self-disclosure, for example, could be problematic. If it violates accepted expectations (Bochner & Burgoon, 1981) or involves negative information (Gilbert & Horenstein, 1975) it could engender dislike. It is also suggested that revealing a high level of personal and

intimate information in the early stage of a relationship can have disturbing consequences such as social rejection, the construction of a negative self-image, loss of autonomy or control, or embarrassment for the listener (Kelly & McKillop, 1996; McKenna, Green, & Gleason, 2002; Nakanishi, 1986).

Privacy risks and concerns can also arise as a result self-disclosure. Researchers argue that revealing private information is risky, as that information can be misused, resulting in the need for self-protection (Altman, 1975; Derlega & Chaikin, 1977; Petronio, 1988). Some researchers believe that controlling the intimacy level of a relationship is a protection against conflict, emotional overload, loss of control, and dependence (Afifi & Guerrero, 1998; Guerrero & Afifi, 1995).

To summarise, self-disclosure plays a vital role in relationship development and maintenance. In the initial stages of the relationship, self-disclosure is fundamental to beginning the interaction: “It is hard to imagine how a relationship might get started without such self-disclosure” (Derlega, et al., 1993, p.2). It is a means to establishing and developing trust between new communicators.

A greater level of self-disclosure is found to be a major determinant of a quality relationship (for example, emotional involvement, friendship satisfaction, and intimacy) (Prager & Buhrmester, 1998; Rubin, Hill, Peplau, & Dunkel-Schetter, 1980). Openness in communication and full disclosure is also considered necessary to maintaining a long-term relationship (Fehr, 1996; Rosenfeld & Kendrick, 1984). Furthermore, discussing and disclosing daily personal events or “catching up” is also seen as an important “relationship maintenance strategy” (Tardy & Dindia, 1997, p.231).

2.1.3 Measurement of Self-disclosure

In SPT, Altman and Taylor (1973) define the two major dimensions – breadth and depth – of information disclosure. ‘Breadth’ of disclosure – sometimes also called ‘amount of disclosure’ – refers to the quantity of the information exchanged. It can be measured, for example, as a word count, the number of different topics disclosed and discussed, and/or as the frequency of disclosures. While the breadth of disclosure does not necessarily mean that a relationship is intimate, it does provide the communicators with an excellent foundation for developing an intimate and close relationship (Collins & Miller, 1994).

‘Depth’ of disclosure, on the other hand, is measured by the quality, importance and intimacy of the information disclosed. It is achieved when a person reveals core personal information, and moves from superficial topics to more personal, important, and sensitive topics. According to SPT (Altman & Taylor, 1973), self-disclosure increases over time with the development and evolution of a relationship from a superficial interaction to more personal disclosure (depth) that includes a wide range of shared topics (thus also increasing the breadth of disclosure). Breadth and depth of self-disclosure are the two basic characteristics of self-disclosure (Cozby, 1973; Derlega & Berg, 1987) and are essential indicators of a developing relationship.

Cozby (1973) identifies the duration of disclosure as a third dimension of self-disclosure, alongside breadth (amount) and depth (intimacy). Duration (time) refers to the persistence of disclosure, that is, the length of time the disclosure lasted. The longer a relationship is maintained, the more the topics discussed, the more the information revealed, and the greater the intimacy achieved. Some investigations found stronger positive correlation between the duration and depth of disclosure than between duration and breadth (Doster, 1975; Ebersole et al., 1977).

Chelune (1975) reviews the basic parameters of self-disclosure (breadth and depth) and adds what he calls “two additional dimensions of disclosing behaviour”:

- the affective manner of presentation, which can be measured by the mean number of self-references in a disclosure (such as sentences starting with “I like”, “I want”, “I am”); and
- the flexibility of the disclosure pattern, which refers to the communicators’ ability to adopt the demands of various social situations.

Wheless and Grotz (1976) also relied on the basic SPT dimensions of depth and breadth to uncover another five characteristic dimensions of self-disclosure. These are: (1) intent (an individual’s control and awareness of the self-disclosure), (2) amount (the number of disclosures or shared topics), (3) valence (positive and negative disclosures), (4) honesty (accurate and true representations in disclosures), and (5) control of depth (intimacy). These additional dimensions expand the understanding of the self-disclosure construct and the influences that affect it (McCroskey & Richmond, 1977).

As indicated above, various researchers have introduced several different dimensions of self-disclosure. The current study, however, adopts its most general and fundamental concepts of breadth and depth (Altman & Taylor, 1973) for its measurement and/or evaluation in the online environment. This is because these two concepts have been identified as the two basic parameters of self-disclosure content (Cozby, 1973; Derlega & Berg, 1987).

2.1.4 Reciprocity of Self-disclosure

In social psychology, reciprocity is a fundamental behaviour in personal relationship development. It is an accepted way of communicating and disclosing information between individuals on the mutual basis of *quid pro quo* self-disclosing communication: “You tell me and I’ll tell you” (Gouldner, 1960; Jourard, 1971a, p.66). In particular, Jourard (1971) explains the idea of reciprocity of self-disclosure: “In ordinary social relationships, disclosure is a reciprocal phenomenon. Participants in dialogue disclose their thoughts, feelings, actions, etc., to the other and are disclosed to in return. I called this reciprocity the “dyadic effect”: disclosure begets disclosure”.

Lee et al. (2008) more specifically define the norm of self-disclosure reciprocity as “the tendency for recipients to match the level of intimacy in the disclosure they return with the level of intimacy in the disclosure they receive”. In this regard, reciprocity relies upon “actions that are contingent on rewarding reactions from others and that cease when these expected reactions are not forthcoming” (Blau, 1992, p.6). Thus, when recipients receive something valued from another, they feel obligated to return something of similar value, and this leads to a relatively equal interaction and persistent disclosure (Beebe, Beebe, Redmond, & Beebe, 1996; Berg & Archer, 1980; Derlega & Berg, 1987; Lee, et al., 2008; McAllister & Bregman, 1983).

Several theories and perspectives have been used to explain the motivation of reciprocity of self-disclosure. For instance, SET (Thibaut & Kelley, 1959) argues that people usually tend to reciprocate in their relationships, including reciprocation of the benefits and rewards gained from these relationships. Thus, as self-disclosure is considered as one of the benefits of relationships, it would usually be reciprocated (Altman & Taylor, 1973). Time is another factor that is seen to influence the level of

disclosure reciprocity. According to SPT (Altman & Taylor, 1973), in the evolution of a successful relationship, the levels of reciprocity tend to increase with time, and lead individuals to a more intimate and close relationship.

A recipient's response to a disclosure, furthermore, often reveals their reaction to that disclosure, and indicates whether they are or are not happy to continue the interaction. Consequently, the discloser might be able to determine whether it is appropriate to increase the level of disclosure, or to withdraw from the interaction (Cahn, 1990; Myers & Bryant, 2002; Qinfeng, 2011).

It is also suggested that individual personality affects the reciprocity of self-disclosure, and that the willingness to self-disclose and the reciprocity of disclosure varies from person to person (McCroskey & Richmond, 1977). Cozby (1973) suggests that personality factors can affect one's level of disclosure. Extraversion, for example, can cause individuals to reveal more than introversion or shyness.

Trust and liking are other important factors affecting reciprocity of self-disclosure. Feeling confident about the other party is important for engaging in self-disclosure (Derlega & Chaikin, 1977), and people usually reciprocate disclosure because they feel that the discloser likes and trust them (Dindia, 2002). Sheldon (2009) also found that users have a significant tendency to only disclose (including reciprocity of disclosure) their personal secrets on Facebook to those whom they like and trust. This suggests that the more trust users have in others, the more the certainty of their relationship and the more information is disclosed. Derlega et al. (1993), however, believe that disclosure may be reciprocated even if the discloser is not necessarily welcomed or liked. Furthermore, a high level of reciprocity and deep self-disclosure could be achieved with a stranger who is not likely to ever be encountered in real life, rather than with family or friends who might express their disapproval of the self-disclosure (Derlega & Chaikin, 1977; Rubin, 1975). Thus, although high levels of self-disclosure and reciprocity are typically indicative of a good, intimate, enjoyable and close relationship, this is not always the case (Fritz, 2002; Weisel & King, 2007).

2.1.5 Computer-mediated Communication and Self-disclosure

Computer-mediated communication (CMC) is defined as “communication that takes place between human beings via the instrumentality of computers” (Herring,

1996, p.1). CMC, and more generally the internet, have become our most important interpersonal communication tools (Walther & Burgoon, 1992; Wood & Duck, 1995). Increasing numbers of people communicate with each other on a daily basis via various social applications such as instant messaging, e-mail, chat systems, blogs, wikis, and a variety of OSNs.

There is considerable variability in assumptions about the influences of CMC on social interaction processes and interpersonal relationship development. On the one hand, some researchers suggest that personal relationships can be formed and maintained equally as well online and offline (for example, Bargh, McKenna, & Fitzsimons, 2002; McKenna, et al., 2002; Sheldon, 2009). Further, it is believed that these online applications offer individuals communication “that is more socially desirable than [they] tend to experience in parallel face-to-face interaction” (Walther, 1996, p.17). This desirability is attributed to many aspects of online communication, such as the lack of social and socio-demographic cues, which increase the anonymity of the communication (Joinson, 2001; Retelas, 2009). This online anonymity enables the user to communicate with others with less fear of disapproval when not following specific norms or rules (Bargh, et al., 2002; Joinson, 2001; Retelas, 2009). Another favourable aspect of online communication is that it connects people who share the same interests and who have important characteristics in common; it provides them with a meeting place where they can practise their interests and develop their relationships (Baym, 2010; McKenna, et al., 2002). Furthermore, online communication helps individuals to overcome physical and social appearance issues such as fear, shyness, and social anxiety (Gibbs, et al., 2006; McKenna, et al., 2002; Parks & Floyd, 1996), and enables them to express themselves in their preferred fashion (Schau & Gilly, 2003).

Other researchers, however, argue that online communication could prevent or discourage meaningful relationship development. According to Social Presence Theory (Short, Williams, & Christie, 1976), having the sense that others are ‘present’ and actively interacting and engaging in personal communication is a significant factor in building successful and intimate relationships. Compared to offline communication, however, online communication is typically characterized as low in social presence due to the lack of personal appearance, reduced social-emotional cues (visual and verbal), and low media richness (Rawlins, 1994; Stritzke, Nguyen,

& Durkin, 2004; Wilmot, 1994). One study, conducted by Cummings et al. (2002), showed that online communication (for example, e-mail) between college students involves less social interaction (verbal cues), and this makes the forming and sustaining of strong social relationships less effective than those forged by face-to-face interaction. Another criticism of online communication is that it allows individuals to present an online personality that vastly differs from their “real life” identities (Lee, et al., 2008; Stone, 2001; Turkle, 1995), and thus assists in creating less-than-honest manipulated identities (Lea & Spears, 1995).

Both experimental and anecdotal evidence suggests that self-disclosure is important for relationships formed via CMC. This is because people are required to disclose information about themselves online – including their identifiable details, opinions, feelings, or actions – in order to form new connections, and to maintain their existing network of friends. Gibbs et al. (2006), for example, used SPT to investigate the relationship between self-discourse and the success of online dating relationships. The study supports the theory surrounding self-disclosure in the online context, by suggesting that self-disclosure leads to greater success in online dating; indeed, the more disclosure participants engage in, the greater the success they have in their romantic relationships. The study also confirms SPT’s belief that individuals who aim to create long-term and substantial romantic relationships engage in higher levels of self-disclosure.

Chan and Cheng (2004) similarly investigated the role of self-disclosure in relationship development on the internet in three different cultures: Korea, Japan, and the United States. Overall, the results are consistent with SPT, which holds that breadth and depth of disclosure in online settings increase over time, and are important in developing intimate online relationships. Lee et al. (2008) also investigated the motivations for voluntary self-disclosure in blog websites, and suggest that maintaining an effective online relationships is one of the valid reasons for online self-disclosure. Bloggers who reveal more information are believed to have “direct benefits in terms of managing relationships and their own psychological well-being” (p.706). Other evidence provided by McKenna et al. (2002) reveals that those who truly and deeply express themselves online are more likely to form close online relationships than those who are more circumspect, and that their friendships are most likely to be moved to a face-to-face basis.

The relative anonymity or lack of personal identification in online interactions stimulates online self-disclosure in many ways. Individuals in online communication contexts can disclose personal details, emotional reactions, and inner thoughts with less fear of disapproval or ridicule (McKenna & Bargh, 2000; Qian & Scott, 2007) than those in face-to-face interactions where real identity is exposed (Derlega, et al., 1993; Pennebaker, 1989). Anonymity also decreases the social risks associated with self-disclosure and makes individuals feel more comfortable about engaging in sharing and disclosure (Posey, et al., 2010). McKenna and Bargh (2000, p. 62), for example, claim that “under the protective cloak of anonymity, users can express the way they truly feel and think”. The relationship between online communicators is similar to the “strangers on a train” phenomenon (Rubin, 1975), where people communicate with and disclose to strangers sitting next to them in the train more than they do to their friends. The reason for engaging in more self-disclosure with strangers is that strangers have no access to each other in real life. They might not meet again, and thus the dyadic boundary cannot be violated (Derlega & Chaikin, 1977).

In summary, the development of online facilities has led to an extraordinary leap in our ability to communicate and exchange information with others, including information about ourselves. Several specific characteristics of online settings motivate people to self-disclose more than they might in offline contexts. These include the ability to remain anonymous, the ability to meet people with mutual interests, the lack of physical appearance and presence, and ubiquitous and constant accessibility.

2.2 NATIONAL CULTURE: BACKGROUND THEORY

2.2.1 Introduction and Definitions

The concept of culture has been discussed by many anthropologists, social psychologists and communication scholars, to the extent that there are more than 400 definitions of the term (Ferraro, 1990). One of the earliest definitions that is widely cited in the literature is provided by Tylor (1871, p.1) who defines culture as “that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society”. Newman and Nollen (1996, p.754) offer another definition that considers the learning of cultural norms, and describe culture as “the values, beliefs and assumptions learned in early childhood that distinguish one group of people from another”. In their definition, Doney and Cannon (1998, p.67) focus on the importance of culture in regulating the life and structure of the social order, explaining culture as “a system of values and norms that are shared among a group of people and that when taken together constitute a design for living”. Similarly, Hofstede (1980) describes culture as ‘unwritten rules’ that differ from one group to another, where following and accepting these rules brings group membership and acceptance.

This section reviews the literature dealing with the role that culture plays in influencing self-disclosure. However, to do this effectively, it is first important to provide a brief background and understanding of the concept of culture by exploring the predominant models and studies in the field.

2.2.2 Models of National Culture

Many studies have developed models that examine cultural similarities and differences across nations. However, two of these models are considered to be the most reliable and effective tools for cross-cultural comparison studies: Hall’s (1976) single dimension model and Hofstede’s (1991) various dimensions model (Bhagat & McQuaid, 1982; Burgmann, Kitchenp, & Russell, 2006; Kogut & Singh, 1988). These two models are discussed below.

Hall's High/ Low Context Model

Hall's (1976) high and low context model is a cultural model that focusses on communication styles and the way information is transmitted among and between individuals from different cultures and backgrounds. In this model, Edward Hall classifies culture as having a high or low context, where 'context' refers to the background, circumstances, environment, and social rules that surround events and help to convey a message between and among parties. In Hall's (1976) perspective, high-context culture is more prevalent in groups that are homogenous, have close connections over a long period of time, and assume a large store of shared knowledge and status. Families are a good example of high context communities. People with this culture have the most internalised information, rely on contextual cues in their communication, and usually convey their messages in a less verbal, more abstract, implicit and indirect manner. Words in this culture do not have the same weight as context. The receiver has the responsibility to decode (understand) the full message from years of interaction. Countries with high-context cultures include Arabic countries, Asia, Africa, and South America (see Table 1 below).

A low-context culture, on the other hand, is one in which people are highly individualised, somewhat alienated and fragmented, and where there is relatively little involvement with others. Communication between people with this culture requires the conveyed message to be clear, explicit, confrontational, manifest, and communicated mainly through words. Thus, communication with strangers in low context cultures is not difficult due to the limited use of internalised context. Countries with low-context cultures include USA, Australia, Germany, Switzerland, and the Scandinavian countries (see Table 1 below).

Table 1 *High- and Low-context Countries*

High-context	Low-context
China	Australia
Egypt	Canada
India	Denmark
France	England
Italy	Finland
Japan	Germany

Lebanon	Norway
Saudi Arabia	Switzerland
Spain	United State
Syria	Sweden

Source: Hall & Hall, 1995

Hofstede's Value Model

Hofstede (1980) compares the national cultures of 66 different countries and three multi-country regions (Arab World, East Africa and West Africa). As the result of these investigations, he suggests that cultural differences can be clustered into four major dimensions: a) power distance – high versus low, b) individualism versus collectivism, c) masculinity versus femininity, and d) uncertainty avoidance – high versus low. The studied countries are ranked according to these dimensions.

The *power distance* dimension refers to the power division inside organisations, and the way in which people in different societies deal with unequal distributions of power. In cultures with a high power distance value, the system is centralized, has a high level of hierarchy, unequal power division, and decision making is more dependent on those in power (Hofstede, 1980). People with this culture believe that power and authority are facts of life, and that all are not equal in this world (Samovar & Porter, 2004). Leaders in power distance cultures, for example, usually have high authority and rights, and their subordinates are more dependent on them (Yaveroglu & Donthu, 2002). High power distance is common in countries such as Saudi Arabia, India, Africa, Brazil, and Singapore.

People in low power distance cultures, on the other hand, believe that power differences among individuals should be limited, and that power should be equally distributed (Burrows, 1992). For instance, leaders in these cultures are most likely to have equal power with their subordinates, share more duties with them, and their salary and status are more similar (Samovar & Porter, 2004). This culture represents a more democratic society, where people are not forced to accept the status quo, and are encouraged to think and to take action for change (Wen, Zhan, & Rodney, 2007). A low power distance culture is more easily discerned in Australia, the United States, Finland, and New Zealand.

The *individualism versus collectivism* dimension is the most applied dimension in cross-cultural studies. It focuses on assessing individuals' loyalty to a specific group. Cultures with individualistic values are more associated with high interpersonal relations, loose ties, and personal autonomy (Hofstede, 2001). These cultures encourage members to be more concerned about personal responsibility, to look after their immediate family, to be less concerned with group needs and interests, and to place great value on personal privacy (Bassett, 2004; Cao & Everard, 2008). Success, competition, and self-decision making are other aspects associated with this culture. Examples of countries with individualistic values are Australia, the US, the UK and Canada.

In contrast, a collectivistic culture, as identified by Hofstede (1980), has a strong and cohesive degree of social connectedness among group members with a high level of similarities. Relationships among group members in this society are tight, closely interwoven, and based on lifelong connections such as blood, religion, location, and history. Members are disinterested in friendships that exist outside the group, considering that connections with people outside of their boundary or society might involve risks, competition, and threat. Group connections, by contrast, are considered to be safer and more trustworthy (Triandis, 1989).

Collectivism also emphasises that individuals need to follow the group's norms, maintain strong ties with other group members, and avoid intra-group conflict (Nitish, Hongxin, & Xiaorui, 2005; Oyserman, Coon, & Kimmelmeier, 2002). Therefore, the needs and interests of the group are met and considered before those of individuals (Aaker & Maheswaran, 1997; Bassett, 2004). Collectivism also supports sharing, work cooperation, group decision making and the collective distribution of resources (Cao & Everard, 2008; Cockcroft & Heales, 2005). Examples of countries with collectivistic values are Saudi Arabia, Pakistan, Colombia, Taiwan and Africa.

The *masculinity versus femininity* dimension is concerned with the distribution of gender roles inside the organisation. A masculine culture A masculinity culture is more associated with male values such as more assertion, ambition, competition, and career advancement (Hofstede, 1980). Heroism, recognition, high earnings and success are some of the major motivators in a masculine culture (Goksel, 2008). Adopting change is easier in a masculine culture,

and people are more interested in employing new methods and technology. Ireland, Greece, the Philippines, Australia and Japan are examples of countries with masculine values.

In a feminine culture on the other hand, female and male roles are not separated, as both genders share the same values. Such a culture is more concerned with creating warm social relationships, a cooperative environment, and a high-quality lifestyle. It is also less interested in adopting new technology or change (Goksel, 2008). Example of countries with high a feminine values are Sweden, Finland, Denmark, Saudi Arabia and Norway.

The *Uncertainty avoidance* dimension is defined as the degree of discomfort felt in a structured or unstructured situation (Hofstede, 1991). People with high uncertainty avoidance believe that uncertain and unstructured situations involve some risks, ambiguity, surprise, and unusual consequences. They typically expect to have detailed instructions and clear directions for accomplishing their life tasks. They prefer to mitigate the possibility of unstructured situations by following strict rules and clear regulations that ensure their safety. People with high uncertainty values are also resistant to change, fear the negative consequences of such change, and are less attracted to innovation (Wen, et al., 2007). Saudi Arabia, Portugal, Peru, Belgium, and Japan are examples of high uncertainty avoidance cultures.

People with uncertainly acceptance (that is, low uncertainty avoidance), on the other hand, are more tolerant, less resistant to adopting new and unusual situations, and prefer fewer rules (Hofstede, 2001). They are less rigid in their need for instruction, and more willing to take risks and adopt new products with low levels of anxiety and stress (Goksel, 2008). Examples of countries with low uncertainly avoidance are Sweden, Denmark, the US and Finland.

2.2.3 Cultural Differences in Self-disclosure

Based on the given definitions of culture (above), we can claim that “no part of our lives is exempt from culture’s influence” (Hofstede, 1991, p.170). Culture plays a significant role in people’s behaviours and attitudes (Betancourt & López, 1993; Wen, et al., 2007). Communication is one of these behaviours that are affected by culture. “What, where and how we should talk [or communicate to others] is regulated by culture” and patterned by its norms (Chen, 1995, p.85).

Self-disclosure, by definition, is also a communication behaviour. It usually occurs by ‘communicating’ information about the self to another or others (Wheless & Grotz, 1976). Thus, culture also contributes to self-disclosure behaviour, and self-disclosure differs among cultures accordingly. Many societies have specific rules that regulate their manner of communication and associated self-disclosure. Others view it as a weakness and believe that it should only occur in a strictly controlled context. Some cultures, on the other hand, encourage self-disclosure, considering it important in forming desirable relationships.

Despite the shortage of studies investigating cultural influences in self-disclosure, especially in online settings (Markus & Kitayama, 1991; Zhao, et al., 2012), several of its cultural aspects have been discussed in the literature. For example, self-disclosure has been examined across individualistic-collectivistic cultures, and it is argued that it is higher for people in individualistic cultures (Adams, Anderson, & Adonu, 2004; Chen, 1995; Cho, 2010).

Chen (1995), for instance, found that Americans, who represent a highly individualistic culture, self-disclose more than Chinese, who represent a highly collectivistic culture in matters such as politics, religion, education, and social issues. Americans consider the “‘I’ identity the prime focus”, and therefore present themselves more clearly and openly (Chen, 1995, p.85). In similar vein, Adams et al. (2004) also found that self-disclosure is essential for forming desired and intimate relationships in an individualistic society such as the US. This contrasts to the situation in a collectivistic society such as West Africa, where blood and shared location relationships are more important in the formation of such relationships. Therefore, Americans place more importance on self-disclosure than West Africans when it comes to relationship formation.

Hastings (2000) also suggests that the very tight and closely-knit networks in collectivistic societies such as India leads to the avoidance and wariness of overt self-expression. The negative rumour, gossip or social stigma that might result from such self-disclosure is thus avoided. This restriction and these concerns might not be the case in individualistic cultures. While much research links individualistic values to more self-disclosure behaviour, however, others reject this claim. Rather, they suggest that the privacy within the group boundary in a collectivistic society is more relaxed, and more accepting of group intrusion into individual privacy than is

acceptable in an individualistic society. This relaxation increases the tendency to share and disclose information with others in the same group (Bellman, Johnson, Kobrin, & Lohse, 2004; Cockcroft & Heales, 2005).

Individualistic and collectivistic cultural orientation has also been examined with regard to different characteristics of self-disclosure, such as its breadth and depth. Research has found that people with high individualistic values (in Western cultures) tend to engage in a greater breadth of self-disclosure, whereas people with high collectivistic values (in non-Western cultures) engage in deeper self-disclosure (Wheless, et al., 1986). This is because relationships in collectivistic cultures are tighter and more intimate, and based on lifelong connections such as blood, religion, and location (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). In individualistic cultures, on the other hand, relationships are weaker and less ingrained. This leads to broader and more superficial self-disclosure. Cho (2010) extends this finding to online communities, confirming that people with individualistic cultures such as the US are willing to self-disclose a greater amount (breadth) of information online, whereas collectivistic cultures such as Korea engage in deeper self-disclosure (including both intimate and vulnerable self-disclosure).

Individualistic and collectivistic cultural orientation has also been used to investigate the cultural variability in the manner of self-disclosure (that is, direct or indirect disclosure). For example, Ting-Toomey (1991) conducted a study in France, Japan, and the US, which illustrates that people from individualistic cultures more frequently use direct self-disclosure (that is, vocal), whereas a collectivistic culture is more associated with indirect disclosure (including body language).

Kim and Papacharissi (2003) also investigated the cross-cultural differences in online presentation at the Yahoo homepage in both the Korean collectivistic society and the US individualistic society. Similarly, the results of the study indicate that Americans talk and present themselves in a direct and personal manner. American communicators are more likely to disclose their information as text, while Koreans are more likely to represent themselves with non-coded information such as photos of media heroes, cartoon characters, and manipulated graphics.

These studies support Hall's (1976) high-low context model where, in a low context culture, a message is conveyed in an explicit and direct way, whereas in a high context culture it is disclosed in a more implicit and indirect way. The direct,

explicit and expressive communication styles in an individualistic society leads to more self-disclosure than the indirect, non-written, and less expressive style in a collectivistic society.

The uncertainty avoidance dimension is another cultural aspect that has been used to explore self-discourse across cultures. Research suggests that people with high uncertainty avoidance values are more wary of sharing information about themselves, or communicating with strangers. For example, Cozby (1973) found that, in Japan, the high level of uncertainty avoidance is reflected in a strong reluctance to converse or share information with strangers. Americans, on the other hand, have low levels of uncertainty avoidance. Gray (1988) also argues that the higher a country ranks in terms of uncertainty avoidance, the more likely it is to rank highly in terms of secrecy, where higher secrecy means a lower extent of self-disclosure. The study also reports that reducing uncertainty is highly valued in a culture with high uncertainty avoidance, where there would be a need to restrict information disclosure to avoid unexpected risks and privacy concerns.

Bandyopadhyay (2009) also indicates that people with high uncertainty avoidance values are also more wary when using a computer, which they associate with IT risks such as personal information disclosure. Yum and Hara (2005) also state that the uncertainty of computer-mediated communication presents a major challenge to developing a close and intimate online relationship with its associated self-disclosure.

The power distance dimension is also discussed with regard to knowledge sharing and information exchange. In low power distance cultures, power distribution is equal, there is less hierarchy and authority, knowledge is decentralised, and the flow of information is fixed (Cao & Everard, 2008). In this culture, information sharing and data gathering are significantly encouraged and welcomed (House, Hanges, Javidan, Dorfman, & Gupta, 2004). This culture is less concerned about protecting personal privacy and more concerned about the open sharing of information. Khatri (2009) argues that all levels in a low power distance culture have the right to share and gather information inside the organisation, regardless of their position. The situation is different in high power distance cultures where power distribution is significant, knowledge is centralized, there is a strong

hierarchy of authority, and information might only be available in formal settings (Hofstede, 1980).

The difference in gender roles is another cultural aspect that affects self-disclosure. Won-Doornink (1985) investigated the disclosure norms of Koreans and Americans in three types of relationships: with an opposite-sex acquaintance, an opposite-sex friend, and an opposite-sex best friend. The results indicate that Koreans are less likely to reciprocate self-disclosure during communication than Americans, who participate in more reciprocity and self-disclosure overall. Won-Doornink (1985) explains that Koreans' lower reciprocation of self-disclosure is the result of the fact that their cross-sex dyads culture and norms mean that they are less responsive than Americans, whose gender differences are less marked.

2.3 SAUDI ARABIA AND AUSTRALIA: CULTURAL BACKGROUNDS

The findings of this study are grounded in the cultural difference between Saudi Arabia and Australia. In order to understand these findings, some knowledge of the national cultures in these two countries is important. The following discussion does not cover all cultural aspects on the two countries; however, it does provide a detailed description of the cultural aspects that relate to this study's findings (which are presented in Chapter 6).

2.3.1 Characteristics of Saudi Arabian and Australian Culture

Saudi Arabian culture

Saudi Arabia is described as one of the most conservative cultures in the world, with a unique blend of Islamic and Arab tradition (Bjerke & Al-Meer, 1993; Burkhart & Goodman, 1998). Saudi Arabians are mostly Muslims, and Islam plays a central role in the Saudi people's behaviour, norms, attitudes, and social practices (Al-Saggaf, 2012; AlMunajjed, 1997). The Quran (the Holy book revealed to Prophet Mohammad from God) and the Hadith (the sayings and practices of the prophet Mohammed (peace be upon him) are the main sources of Saudi Arabian life practices (Nigosian & Nigosian, 1987; World Trade, 2010a). The study of Islam is the core of Saudi educational systems. The two holy Islamic cities Makkah and Medina are located in Saudi Arabia. In these cities "Islam was born at the end of the sixth century AD, developed under the Prophet Mohamad [peace upon him], and

where the religion's holy book, the Quran, was revealed and written" (Al-Saggaf, 2012, p.3). Arabic is the official language of Saudi Arabia, and the language of the Holy Quran; it is the only language that Saudi people use at school, work, and home.

Saudi Arabians are social people and regular visits to relatives are an important Saudi Arabian practice. This practice is called '*silatur-rahim*' (maintaining the bonds of kinship). *Silatur-rahim* includes "asking about relatives, checking on them, giving them gifts when possible, helping their poor members, visiting their sick members, accepting their invitations, having them as guests, feeling proud of them and elevating them" (Sergany, 2010, p.7). *Silatur-rahim* has its roots in from Islam, which repeatedly calls for the upholding of the ties of kinship, and warns against cutting these ties. Severing these ties is a major sin, as Allah warns in the Holy Quran: "Would you then, if you were given the authority, do mischief in the land, and sever your ties of kinship? Such are they whom Allah has cursed, so that He has made them deaf and blinded their sight". Saudi people, as members of a religious society, are more likely to allocate time to regularly visit their relatives, meet them in mosques, and attend their social occasions (Al-Saggaf, 2012). Yamani (1987) found that most Kuwaitis, who share most cultural aspects of Saudi life, also usually visit their kin daily or on a weekly basis.

Gender segregation is another aspect of culture in Saudi Arabia. As prescribed by the Islamic religion, in real life, women in Saudi Arabia are not permitted to mix with men who are not directly related to them, especially when alone; only mahram members (unmarriageable kin) of the opposite sex are allowed physical contact (Al-Bukhari, 1987; Al-Qaradawi, 2007; Al-Saggaf & Begg, 2004; AlMunajjed, 1997; Dakir & Shah, 2012; Padela & del Pozo, 2011; World Trade, 2010a). The purpose of gender segregation is to avoid the occurrence of adultery and to "prevent the other men from encroaching on the male honour of the family" (AlMunajjed, 1997, p.34). Gender segregation in Saudi Arabia "profoundly influences every aspect of public and social life" including education, banking, hospitals, public transportation, and shopping (Al-Saggaf, 2012, p.5). It is common in Saudi Arabia to have places that are solely for women, and where men are banned.

As a result of this gender segregation and differences in gender roles in Saudi Arabia, the "uniqueness of gender is of high importance" (Al-Saggaf, 2012, p.5). Based on Islamic doctrine, women in Saudi Arabia should also wear the hijab – the

(usually black) veil that covers the head, chest and full body – beyond the age of puberty in the presence of males. Wearing of the hijab in Saudi Arabia is a fundamental tenet of government law, and is considered a symbol of modesty and morality.

Marriages in Saudi Arabia are influenced by traditions and norms. Since the social mixing of opposite sexes is restricted, most marriages are arranged by other family members of the bride and groom and, traditionally, the bride and groom do not meet each other until the wedding night (Abraham, 1995; Al Sulaiman, Saeedi, Al Suliman, & Owaidah, 2010; Chaleby, 1988; El-Islam, 1982; Wong & Anokute, 1990; World Trade, 2010a). Dating is also forbidden, and romantic love as the basis of marriage is either little recognised or socially rejected in the country (Lee & Stone, 1980; World Trade, 2010a).

The tribal system is another important cultural aspect that plays a significant role in Saudi Arabian life. Tribes or clans are very important to the way Saudi Arabians identify themselves and structure their social relationships (Al-Saggaf, 2012; Aldraehim, Edwards, Watson, & Chan, 2012; At-Twajiri & Al-Muhaiza, 1996; Bittles, 2008; McAuley, 2005; Wilson, 1994; Zein, 2006). Usually, each tribe in Saudi Arabia has a leader who regulates the tribe's rules and authority based on specific values and norms (Al-Saggaf & Begg, 2004), which might not be required by other tribes. Furthermore, people who belong to the same tribe in Saudi Arabia usually form strong relationships, hold special social occasion and gatherings, and share concerns and duties. This tribal culture encourages Saudi Arabians to live close to each other as descendants of Arabic tribes, who recognise the value of sharing the same dwelling with grandfathers and their sons, wives and children (AlMunajjed, 1997; Long, 2005; Nahas, 1954; Othman, 1974).

Personal reputation is important to Saudi Arabians. It is the “key dimension of [their] self, something that affect the very core of [their] identity” (Solove, 2007, p.31). A tarnished reputation is harmful in a conservative, religious, tribal, and very social community such as Saudi Arabia, where it cannot be hidden. Even more importantly, if a member of a Saudi Arabian tribe behaves badly or in a socially unacceptable manner, the negative consequence or social stigma of such behaviour reflects on all tribal members, not simply on the individual (Al-Saggaf & Weckert, 2011). Thus, individuals, families, and tribes have a fundamental fear of the scourge

of stigma, understanding that it is not easily removed. Talking about sex, using obscenity, and drinking alcohol are not religiously or socially acceptable in Saudi Arabia, and could “engender divine retribution and social stigma among their peers” (Al-Saggaf, 2012, p.6).

Stigma and a tarnished reputation have more serious consequences for Saudi women and their families than they do for men. For example, the distribution of photographs of women is forbidden, as it is considered an attack on an individual and their family’s reputation and can lead to blackmail (Al-Saggaf & Weckert, 2011). Recently, Okaz, a popular Saudi newspaper, reported that a Saudi man was arrested for threatening a Saudi girl if she did not continue an illicit sexual relationship with him, he will submit her personal photos on social media such as Facebook and Twitter (Okaz, 2014). Furthermore, Saudi females who behave in an unacceptable manner and create personal and family stigma could be killed by their fathers or brothers who wish to remove the shame they have brought to the family. In 2008, for example, a young Saudi Arabian woman was murdered by her father for breaking local cultural norms by chatting with an unknown man on Facebook (Danielewicz-Betz, 2013).

A belief in the ‘evil eye’, also known in Arabic as ‘*Ayn Al-hasud*’, is another aspect of Saudi Arabian culture. The influence of the ‘evil eye’ is brought to bear when a person shows something desirable to another person who do not have it, and might in turn desire it. As a consequence, the ‘evil eye’ is directed at the person who shows the desired item, and will bring them bad luck, injury, severe mental illness, misfortune, and a loss of the good that they have (Alqahtani & Salmon, 2008; Alsughayir, 1996; Hussain, 2002; Panter-Brick, 1992; Spooner, 1976).

Islamic doctrine is the source of the ‘evil eye’ belief, which is based on the statement of Prophet Muhammad (peace upon him): "The influence of an evil eye is a fact" (Muslim, 1971, p.542). Prophet Muhammad (peace upon him) also describes the risks of the evil eye on his nation saying: " Most people of my nation die of evil eye after that of Allah's Decree" (Al-Albani, 1986).

The belief in evil eye significantly affects Saudi Arabians’ behaviour, including their sharing of pleasurable personal news with others who do not have similarly pleasant news and might subsequently wish to. Islam also advises Muslims to find ways to protect themselves from the evil eye, such as asking others to say

"*Masha Allah*" (what God has willed) to avoid their evil eye, or by reading verses of the Holy Quran.

Australian Culture

Australia is one of the most culturally diverse nations in the world, with many identities and norms. This diversity is the result of the high influx of migrants (ABS, 2001; Clarke, 2002; Cobb-Clark, 2003; Miller, 1999). While the Australian national identity dates back to the time of early European settlement when Great Britain established the first European settlement at Sydney Cove in 1788 (Purdie, 2003), it has since been influenced by millions of immigrants from some 200 countries (Casey, 2006). According to the 2008 census, approximately 46% of the Australian population was either born overseas, or had one or both parents born overseas (Immigration & Citizenship, 2008). As a result, it is quite common for Australians to have families and friends who live outside the country, and who influence its culture and identity.

While English is the official language in Australia, other languages are used in some parts of the country, especially within Aboriginal communities and immigrant families. According to the State of Australia's Young People Report (2009), young people are a culturally and linguistically diverse population, with a high proportion of Indigenous young people. One in five Australian young people were born overseas (mostly in Asian countries), and speak a language other than English at home.

Australia's culture is essentially a Western one, with Aboriginal and migrant influences (Clarke, 2002). Secularity plays a significant role in traditional Australian culture (Fien, Teh-Cheong Poh Ai, Yencken, Sykes, & Treagust, 2002; Parker, 2011; Parker & Hoon, 2013), where government and executive structures are separated from religious organisations or ideologies (see Section 116 of the Australian Constitution) (Bogen, 1997; Hogan, 2006). This separation of religion and government means that religion is largely a matter of the personal choice and views

of a particular individual or groups of individuals. This, in turn, creates a religious tolerance and the co-existence of a variety of religions, beliefs and cultures. While there is no official religion in Australia, Christianity represents the largest religious group in the country (Australian Bureau of Statistics, 2006).

Australia is a clearly democratic country that supports equality of gender, opportunity, and legal rights. Australian women have made significant contributions to every aspect of Australia's development, and have equal opportunities with men. The Australia government believes that gender equality is essential, and aims to eliminate all sexual discrimination. This gender equality is reflected in the fundamental social practice of marriage. Australia is similar to any other Western country, where romantic love is the basis of a marriage (Levine, Sato, Hashimoto, & Verma, 1995). Furthermore, there is no pressure on the bride or groom's family members to arrange these romantic partnerships (Henrich, et al., 2010). Rather, prospective partners meet regularly prior to their marriage to determine their compatibility, and to develop and establish their relationship.

2.3.2 Application of Hall's and Hofstede's Cultural Models to Saudi Arabia and Australia

Saudi Arabia and Australia show considerable differences in Hall's (1976) and Hofstede's (1980) cultural dimensions. According to Hall's (1976) model, Saudi Arabia is considered a very high context culture, while Australia is a very low context culture. On Hofstede's (1980) dimensions, Saudi Arabia is very high in power distance, collectivism, and uncertainty avoidance dimensions, while Australia is very low. Australia is also moderately higher on the masculinity dimension.

Hall's Cultural Model applied to Saudi Arabia and Australia

The concepts of high context and low context culture are the two ends of a continuum (Hall, 1976). Saudi Arabia is described in Hall's study as a high context culture, whereas Australia as low context. A communication in Saudi Arabia, for example, is contained more in the context of the communication than in the communication itself; that is, the meaning of the communication can be explained through the tone of voice, body language or the use of abbreviations. The communication might also be indirect, ambiguous, and require some 'reading between the lines'. In Australia, however, the communication tends to contain the

actual content of the message, to discuss a very specific topic, to be direct and ‘straight to the point’, and to be mostly communicated through words.

Hofstede’s cultural model applied to Saudi Arabia and Australia

In his study, Hofstede (1980) considers several countries as one region, because he believes that they share similar cultural characteristics and identities and do not need to be considered separately. The ‘Arab World’ region is one of these regions, and includes Saudi Arabia, Egypt, Iraq, Kuwait, Lebanon, Libya, and the United Arab Emirates. In fact, these Arab countries are similar in many cultural aspects such as race (which refers to Arab tribes), language (where Arabic is the official language), and religion (where most Arab people are Muslims and share most Islamic values) (Fonte & Horton-Deutsch, 2005; Shaheen, 2003).

Saudi Arabia (in the Arab World) and Australia represent two extremes in Hofstede’s country scores for power distance. Saudi Arabia has a strong power distance, and is more hierarchical (score 80), while Australia has a low power distance and a less centralised authority (score 36). Bjerke and Al-Meer (1993) re-examined Hofstede’s dimension specifically in Saudi Arabian culture, and found scores of 73, similar to Hofstede’s findings for Arabic society in general (Hofstede, 1980). Saudi Arabians, as Muslims, believe in the authority of Islamic society, and Islamic teaching rules their life and is always referred to when making decisions (Bjerke & Al-Meer, 1993). There is also a considerable power distance between the royal family and the rest of the population in Saudi Arabia. Australia, however, is a secular and democratic country where people have equal authority and the middle class plays a more significant role.

Individualism is another cultural dimension on which Saudi Arabia and Australia differ significantly, with Australia representing one of the most individualistic countries (score 90), and Saudi Arabia having a much lower score on this dimension (score 38). In Saudi Arabia, the family is high priority, and people

place family interests above their own self-interest (Kabasakal & Bodur, 2002). The importance of group membership and cooperative behaviour is emphasised in the Holy Quran and the Sunna, and is part of Islamic doctrine. On the contrary, Australia has more individualistic relationships, and people are expected to look after themselves and their immediate family. Australians tend to consider individual interests before the interests of the group.

Uncertainty avoidance is another cultural characteristic on which Saudi Arabia and Australia differ, with slightly different scores of 68 and 51, respectively, with the Arab World scoring relatively highly on this dimension. Bjerke and Al-Meer (1993) determined a Saudi Arabian score of 74 on this dimension, confirming that the country has a high level of uncertainty avoidance. This is because Saudi Arabians prefer to follow formal and structured rules that mainly rely on Islamic values. Australia, on the other hand, is considered as low uncertainty avoidance and Australians generally accept risk taking as an integral part of business life.

On the masculinity dimension, Saudi Arabia and Australia are more similar (scores of 50 and 61, respectively). In the Bjerke and Al-Meer study (1993), Saudi Arabia scored 43, and could, therefore, be classified as a feminine culture. This is because Saudi Arabian society is less concerned with achievement and competition, and places more emphasis on cooperation and successful community ties (Bjerke & Al-Meer, 1993). Australia is a moderately masculine culture, with a greater emphasis on assertiveness and achievement.

Table 2 summarises the comparative results, which show that Australia appears to be highly individualistic, and to have low power distance. In these regards, it is extremely different from Saudi Arabia. However, it is only slightly different to Saudi Arabia on the other two dimensions of uncertainty avoidance, and masculinity. This study begins with these assumptions in mind.

Table 2 Cultural Dimension Ratings of Saudi Arabia and Australia

Cultural Dimensions	Saudi Arabia	Australia	Difference
Power distance	80	36	Strong
Individualism	38	90	Strong
Uncertainty avoidance	68	51	Medium
Masculinity	50	61	Weak

Scores are given on a ranking scale from 1 (lowest) to 120 (highest) (Hofstede, 1980)

2.4 ONLINE SOCIAL NETWORKING: BACKGROUND THEORY

2.4.1 Introduction and Definitions

The term ‘social networks’ is not new; it was introduced in the 1950s when Barnes (1954) described it as a map of relationships and ties that connect groups of people; for example, families, villages or neighbourhoods, religious groups, or workers in an organisation. These traditional or physical networks were more likely to be limited to a geographical area, and usually did not exceed 150 people (Barnes, 1954). Around the turn of the twenty-first century, however, the concept of ‘social network’ underwent a significant change. The Internet began to transcend time and distance, opening up “new networks where far-away strangers can become close friends, where families and friends can share common experiences though far apart, and where colleagues can work on teams with people they’ve never seen” (Reid & Gray, 2007, p.1).

At the initial stage of Internet development, most website and network tools consisted of static HTML websites with read-only content and fixed categorisation, and venders or masters of the sites decided their appearance, operation, services and content. These websites and network tools constituted “Web 1.0” (Chakravarthy & Barde, 2008). In early 2000s, however, a new phase in the internet evolution emerged – the development of new interactive web tools known as “Web 2.0”.

Web 2.0 was originally and generally defined by O’Reilly in 2005 as the second generation of the Web that is characterised by a range of specific new features. The four most important of these features are: 1) User-generated content, 2) maximisation of the collective intelligence, 3) the provision of interactive services, and 4) users’ ability to fully control and own their data (O’Reilly, 2005). There are currently a large number of Web 2.0 services and applications. Blogs, Microblogs, Wikis, Social bookmarking, Multimedia sharing, and Social networks are the most popular Web 2.0 services. This study is mainly focused on Web 2.0’s social network services such as Facebook.

Online social networks (OSNs) – also known as ‘social software’, ‘social applications’, and ‘social network sites’ (Barnes, 2006) – fill “a middle ground between home pages and blogs in which the individual is primary, and online communities in which the group is primary” (Baym, 2011, p.385). Many definitions

of OSNs circulating in the literature also involve a list of features that typify these services.

Boyd and Ellison (2007, p.211), for example, defines OSNs as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system”. Hupfer et al. (2009) also emphasise the social connectivity on OSNs, describing them as “big parties that live online” and are full of close friends, acquaintances, and strangers who are all able to communicate (p.11). Livingstone (2008) explains that OSNs “enable communication among ever-widening circles of contacts, inviting convergence among the hitherto separate activities of email, messaging, website creation, diaries, photo albums and music or video uploading and downloading” (p.394). Others see them as providing meaningful relationships that connect people, organizations, or other social groups in one community. These relationships can be with friends, co-workers, co-researchers, and many more (for example, Gross & Acquisti, 2005; O’Murchu, Breslin, & Decker, 2004).

Although OSNs have only appeared over the past decade, they have grown rapidly ever since to penetrate all corners of our daily life, and are now “akin to watching television and using the phone” (Boyd, 2014, p.8). By the end of 2011, online marketing company ComScore indicated that online social networking was “the most popular online activity worldwide accounting for nearly 1 in every 5 minutes spent online”, reaching 82% of the online world population, and representing 1.2 billion users around the world (Comscore, 2011). In late 2012, Nielsen Company also reported that OSNs were continuing their rapid growth and “today, social networking is truly a global phenomenon”. This report also indicates that people spend more time on social networks than any other online activity, accounting for 20% of all internet time spent on personal computers and 30% of time spent on mobile devices (NielsenWire, 2012).

Adolescents and young users are strongly attracted to participating in OSNs (Boyd, 2014; Hargittai, 2008; Lenhart, et al., 2007; Nyland, et al., 2007). Several studies found that teens and younger users represent an important proportion of OSN users, where almost 80–90% of college students and teen users have OSN profiles

(Gross & Acquisti, 2005; Lampe, Ellison, & Steinfield, 2006; Stutzman, 2006). At the same time, OSN use is not limited to teenagers and young adults, but also involves older people. In fact, it is argued that seniors over the age of 55 are “the fastest growing demographic in online social networks” (Lewis & Ariyachandra, 2011, p.4). In Facebook, it was found that the fastest growing demographic age group is people 35 and older, representing more than half of Facebook users (Karl & Peluchette, 2011). Furthermore, Frandsen et al. (2013) recently reported that the age of the average Facebook user has increased to 40 years and more in Australia, 38 years in the US, and 31 years worldwide. These figures suggest that social network use is becoming more mainstream.

2.4.2 Online Social Networks vs Other Computer-mediated Communication

OSNs are “neither the first—nor the only—tools to support significant social interaction or enable [people] to communicate and engage in meaningful online communities” (Boyd, 2014, p.6). Definitely, however, OSNs and their distinctive features have “reshaped the information and communication ecosystem” (Boyd, 2014, p.6). For example, they have significantly changed the methods of online identity presence and the social connectivity that is characteristic of traditional online communities (for example, forums).

OSNs such as Facebook are made up of individual profiles (accounts) that represent their members’ identities. By creating a profile on Facebook, users establish an identity presence online and use it to connect and interact with other users in the Facebook network (Joinson, 2008; Lewis & Ariyachandra, 2010; Mishra, 2010). An OSN profile is like a personal website, where users can display very rich personal information and generate content that reflects their identity and personal context.

The ability to construct an identity presence on OSNs significantly contributes to self-disclosure behaviour, and increases the opportunity for personal communication and interaction. (This is the major consideration of this research, and profiling and identity presence on OSNs is discussed in more detail in section 2.3.5 below). In most traditional computer-mediated communities, however, users’ memberships (accounts) only display general and limited information about the self (for example, a picture, location, recent posts, and period of membership). Membership of these sites is mainly of value to the online communities, and does not

benefit individuals directly and personally. Furthermore, users' pages (or accounts) and the content that they generate do not belong to the user; they are owned and managed by the owners of the sites.

Another significant feature that distinguishes the social connectivity and interaction on OSNs from that of traditional computer-mediated communities is that the latter mainly aim to connect people based on their interests; they create one community of members who were not known to each other before joining the site. Thus, the content in these communities is generated before any personal connections are made, and people's interactions and relationships are based on this content (Mayfield, 2005). More specifically, we can say that the connections among community members in these traditional forums are impersonal, indirect and implicit, and minimise the possibility of generating personal content or forming intimate personal relations.

OSNs such as Facebook, however, have changed the perception of connection and friendship in such communities through "downplaying the importance of interests and making friendship the organizing tenant of the genre" (Boyd, 2014, p.7). In Facebook, for instance, the person-to-person connection should come first, and the sharing of content and associated interaction then follow. In fact, the high importance and priority of connection in OSN communities dramatically changes traditional online relationships, and increases the possibility of forming interpersonal and intimate relationships online. These relationships, in turn, generate an enormous amount of content around people and their lives. This generated content is the major focus of this research.

A further compelling difference between OSNs and traditional online communities is that the former are mainly used for maintaining offline relationships (Ellison, et al., 2007; Ploderer, Howard, & Thomas, 2008; Subrahmanyam, Reich, Waechter, & Espinoza, 2008). Offline relationships (also known as 'pre-established relationships') on OSNs are relationships between and among people who have met face-to-face, and who have had prior social interaction. These offline relations are bridged online using OSN applications such as Facebook.

The literature shows that the ability to maintain offline relationships on OSNs is the main reason for their high adoption and use across the world (for example, see Ellison, et al., 2007; Ellison, Vitak, Gray, & Lampe, 2014; Joinson, 2008; Sosik &

Bazarova, 2014; Subrahmanyam, et al., 2008). Facebook, for example, is widely used to locate and learn about offline friends, and to update them on life changes and events (Lampe, et al., 2006). Therefore, using one's real identity and disclosing more identifiable information and news on OSNs is essential to having and achieving the benefits of this distinctive OSN feature.

The majority of traditional computer-mediated communities, on the other hand, are more likely to be used to connect people who do not know each other in person; Therefore, offline relationships and associated activities and news are not important in such communities, which are mainly built to improve one's understanding of a particular topic. Users are often anonymous, and less likely to form personal relationships or to discuss personal topics that disclose their identity (Baym, 2010; Preece, Nonnecke, & Andrews, 2004; Rau, Gao, & Ding, 2008).

2.4.3 Facebook and Social Networking

As Baym (2011, p.389) states, OSNs “vary in their foci, technological affordances, regions in which they are most used, uses to which they are put, and social contexts that emerge through them”. There are different types of social networking sites aimed at different niche audiences. Some sites (such as Ecademy and LinkedIn) have developed to meet business interests; others (for example, Friendster, MySpace and Facebook) cover social interests; some (for example, Last.fm) are for music fans; some (for example, Eons) appeal to baby boomers; some (for example, Catster, Dogster) are for pet lovers; and others (for example, MyChurch) are for those with an interest in religion.

For the purpose of understanding the self-disclosure phenomenon among friends in OSNs, this study focuses on social interest OSNs and, more specifically, on Facebook – the most popular, prominent and widely used of all OSN services (section 3.2.1 later discusses the detailed reasons behind the selection of Facebook as the target OSN).

Facebook was launched in 2004 by Mark Zuckerberg and co-founders Dustin Moskovitz, Chris Hughes, and Eduardo Saverin. Initially, Facebook was designed for use by Harvard University students only, serving as an online yearbook for Mark Zuckerberg's classmates (Hillstrom, 2010). This application then expanded to include other universities, and then opened up to high school students. Then, in 2008,

Facebook become available to users outside educational institutions, and began to attract new and various audiences.

Currently, Facebook is one of the most popular and visited websites on the internet (Alexa.com., 2014, ; Top sites, 2014, May), with an estimated one billion + monthly active users, and 802 million daily active users (Facebook, 2014). It is a mainstream communication tool for individuals in all age groups (Brenner, 2012; Cardon & Marshall, 2014), but with a significant underrepresentation of people over 65 (Alexa, September 2012). Facebook has also become “a cultural icon at the centre of books, documentaries, and Hollywood feature films” (Cassidy, 2013, p.2).

Facebook’s adoption has not been limited to personal use; it has also extended to use in different sectors. In the education sector, its use has resulted in noticeable improvements in student-student and student-teacher interaction and communication (Simonds, et al., 2007; Thelwall, 2009); in business and enterprise, it is used to sell and promote activities, and for staff collaboration and customer interaction (Gaudin, 2009; Lewis & Ariyachandra, 2010); and in government services, it is used to increase citizen satisfaction, supporting the collaborative, autodidactic and self-regulatory activity (Byrd, 2011; Williams & Gulati, 2008)

Globally, Facebook has been widely adopted in many countries, regardless of their different cultural norms. For example, in Saudi Arabia and Australia (the target countries in this study), social networking on Facebook is one of the most important daily online activities. In early 2009, Facebook launched its Arabic version, aiming to gain more users from the Arab world. Its adoption of the Arabic language dramatically increased the number of Arabic users. It became the fastest growing language version in that year (Inside Facebook, 2010), reaching 26 million users by the end of 2010 (Alriyadh, 2011). According to the Arab Media Outlook report (2011), approximately 70% of internet users in Saudi Arabia are OSN users, and Facebook was their most visited site. Netlog and Maktoob, local Arabian OSNs, were also popular OSNs, but less so than Facebook. Additionally, the report by Arab Social Media in 2012 shows that Saudi Arabia has the largest percentage of Facebook users in the Gulf region, with over 5 million users. In the Arab region, it has the second largest number of users (after Egypt).

In Australia, over 80% of the population have access to the internet, approximately 66% of this number are on OSNs (Sherwood & Nicholson, 2013), and

over 55% have a Facebook account (socialbakers, 2014). The number of Australian Facebook users continues to grow. There were over 13 million active users in May 2014, suggesting that over half of the population uses the service regularly (Social media news, 2014). The Recent Australian Yellow™ Social Media Report (2013, p.9) also indicates that the intensity of social network use has increased in the daily lives of Australians, where “among Internet users, some 65% use social media such as Facebook, Twitter, MySpace or LinkedIn, up from 62% last year”. The report also shows that Facebook continues to dominate as the most popular social media site, being used by 95% of social media networking participants, down slightly from 97% last year.

In fact, the reason behind Facebook’s wide adoption and global success is the comprehensive, useful, and pleasant service that it offers its users. This service includes, but is not limited to a ‘wall’ function, also referred to as a ‘timeline’, which represents a new means of communication and social interaction. It allows users to publically update their statuses or to leave comments on their personal profile or the profiles of others. Krasnova et al. (2010, p.121) report that posting messages on a Facebook ‘wall’ is the most convenient way to maintain relationships, where “a small post on the wall is a simple way to remind others about oneself, helping to keep relationships alive”. Trottier (2014, p.22) also asserts that the new social capability provided by Facebook’s ‘wall’ is a very simple way “to give your friends the full story of what’s happening with you”.

‘News feeds’ is another new and enjoyable feature that Facebook offers. It is specialised to automatically provide users with a constantly updated list of news from people and WebPages that they follow. This compares favourably with MySpace, for instance, where users are required to manually type in or select contacts’ profiles to receive information about their activities.

The ‘Like’ function is a way of giving positive feedback or letting someone know that you enjoy their content, without spending time or effort on writing a comment. Facebook also enables users to select and join specific ‘groups’ based on personal interests, common causes, issues or activities. In these groups, people usually discuss issues, express opinions, and share related content.

‘Questions’ is another new function on Facebook that allows users to obtain recommendations, conduct polls, and learn from friends and other people. Facebook

also contributes to an information search function through taking public status updates and making them available outside of Facebook. It permits people to conduct public searches for its users' content without requiring a Facebook account. OSNs such as Facebook are, therefore, suitable places for asking and answering questions (Barsky & Cho, 2007; Efron, 2011; Morris, Teevan, & Panovich, 2010), and for information seeking (Mark-Shane, 2008; Teevan, Ramage, & Morris, 2011).

Facebook is also considered as a playful system. It provides participants with various entertainment services (for example, gaming, chatting, uploading, wall messaging, browsing of photos and videos), as well as utilitarian services (for example, search engines, news, groups, and business services). Sheldon (2008) argues that Facebook's entertainment functions are attracting students to, and that more are using the medium for this reason.

Facebook also enables users to add-on applications created by outside developers (Hillstrom, 2010). More than fifty thousand applications or tools can be integrated into or used to customise a user's Facebook profile. Such a feature (and others listed above) differentiate Facebook from other OSNs, and have "replaced MySpace as the number one online social networking site" (Hillstrom, 2010, p.30).

The above discussion makes it clear that Facebook's global popularity, and its useful and enjoyable functions justify its selection as the target online social network application for this research.

2.4.4 Relationship Development and Maintenance in Online Social Networks

People typically start their relationships as face-to-face interactions, and then continue their communications via various electronic methods such as phone, email, or OSNs. OSNs such as Facebook are the most recent and important electronic communication tools that enable individuals to maintain their relationships effectively and economically. The ability to create a personal identity, or 'profiles', on OSNs has introduced a new era of communication. Profiles represent a member's 'dwelling': When we need to talk with them or learn about their lives, we simply visit their OSN profile (Trottier, 2012).

This personal profile is also used to search and connect with other members on the same network (Boyd & Ellison, 2007), thus providing users with a large list of friendships or social networks. This distinctive personal profile feature of OSNs

dramatically changes the way relationships are maintained, establishing a new means of interconnection between offline and online communities. In other words, OSNs such as Facebook enable people to easily search for their offline friends' profiles, to establish a connection with them online, and to then be updated on their offline activities and events.

The literature generally agrees that OSNs such as Facebook are effective tools for enriching and maintaining offline relationships (for example, with family members, relatives, school or work friends, old friends or absent friends). Indeed, this relationship maintenance function of OSNs is regarded as the most significant motivation for joining them (Brandtzæg & Heim, 2009; DiMicco & Millen, 2007; Ellison, et al., 2007; Ellison, et al., 2014; Fox, Osborn, & Warber, 2014; Joinson, 2008; Pempek, Yermolayeva, & Calvert, 2009; Ploderer, et al., 2008; Sosik & Bazarova, 2014; Subrahmanyam, et al., 2008).

Lampe et al. (2006, p.167) conducted a study of over 2000 Facebook college users, and found that participants mainly used Facebook to interconnect with offline friends (in their dormitories or in class), and to stay in touch with their friends from high school. The study also suggests that Facebook is a "social search" tool that is mainly used "to investigate specific people with whom they share an offline connection to learn more about them" (p.167). It also reveals that only a few people use Facebook as "social browsers" who search Facebook for new groups and people with intention to move such new relations offline. Similarly, Ellison, et al. (2007) found that college students mainly use Facebook for maintaining their school relationships offline, rather than for forming new friendships. They also argue that Facebook is positively associated with the accumulation and maintenance of social capital by enhancing connections with existing relationships, reconnecting with past ties, and forming new connections that might further develop in the offline context.

Subrahmanyam, et al. (2008, p.420) also investigated young people's activities on OSNs, and the ways in which their network of friends related to their offline networks. Generally, the results affirm that college students usually use the internet, especially social networking sites, "to connect and reconnect with friends and family members. Hence, there was overlap between participants' online and offline networks". The study also reports that most social networking site users (73%) only accept a person's friendships if they have met that person offline or in real life. Only

a very small minority (11%) report that they add to their account someone out of their offline contacts who has sent a friend request. Furthermore, almost half (49%) of participants' best real-life friends were also their best social networking friends. The study additionally reveals that not being connected or not being closely connected in the offline world could be a reason for terminating an OSN friendship. When explaining the reason behind deleting or blocking some friendships, one participant stated: "We don't KIT [Keep in touch]" (p.429).

Fox et al. (2014) recently also asserted that Facebook is an effective application for maintaining romantic relationships. It easily and effectively connects romantic partners and integrates their social networks on Facebook. However, such connection also has its negatives sides, such as the loss of privacy and independence both within the relationship, and between the couple and the network.

While it is true that OSNs are significantly used for maintaining and bridging offline and online communities, they are also useful in forming new relationships and connecting people, without requiring an offline relationship or the pre-establishment of a relationship. In fact, OSNs "expanded the range of potential relationships to a broader pool than at any previous point in history" (Baym, 2010, p.142). They offer their users unique opportunities and possibilities to search and connect with other people based on shared interests, where these mutual interests and passions work as a strong glue to bind them (Anderson & Emmers-Sommer, 2006; Baker, 2008; Baym, 2010; Baym & Ledbetter, 2009; Choi, 2013; Mano, 2014).

OSNs are also used for forming mutual interest communities, such as pet lover communities, support groups for those suffering from various diseases and conditions, for those sharing entertainment preferences, for religious and church communities, and charities. Facebook, for example, offers a function called 'Facebook groups', which is used for forming groups that share a common interest. Without the need to 'friend' one another, members of a group can communicate with other group members and be notified when a post is made on the group's page.

Bender et al. (2011) conducted a study of the use of Facebook groups to create communities interested in discussing medical problem such as breast cancer. The study revealed that more than one million people across the world joined over 600 breast cancer groups on Facebook. Sharing an interest in discussing topics related to this medical issue is the only motivation for joining such communities; this

highlights the fact that Facebook is an effective application for facilitating such community relationships.

Most OSNs also offer their users two features known as ‘friends of friends’ and ‘mutual friends’. Browsing the friends of friends increases the opportunity to form new relationships (Java, Song, Finin, & Tseng, 2007). ‘Mutual friends’ on OSNs such as Facebook are friends who have something in common. One does not even necessarily have to know the person with whom you share the mutual friend. Having mutual friends can increase the opportunity for accepting or sending new relationship requests. In fact, Haythornthwaite (2002, p.385) coins the term “latent tie” to refer to those social network ties that “exist technically but have not yet been activated”. Once these latent ties are activated, they might be converted into weak ties (Baym & Ledbetter, 2009; Ellison, et al., 2007), and then into strong ties (Ellison, et al., 2007). Mutual friends in OSNs such as Facebook “are a good example of latent ties and a source of new relationships” (Baym, 2010, p.101).

While OSN users are more likely to use their real identity (Zhao, et al., 2008), they are able to hide their real identity using false details. This ability to remain anonymous on OSNs increases the opportunity to form new relationships that might not be possible in offline settings where one’s real identity is exposed. It is argued that people who have never been in personal (offline) contact and who do not expect to in future might be more inclined to share more personal information. This is because the purely online relationship could be perceived as potentially less damaging, less responsible, and having fewer and less serious consequences than the personal offline relationship. Anonymous self-disclosure or the releasing of personal information to those whom one does not expect to meet in the real world can be seen as a relatively safe action; this is because people typically expect problems in real life encounters and tend to psychologically separate real life from ‘online life’ and online activities (Caplan, 2003; Humphreys & Klaw, 2001; Tidwell & Walther, 2002; Wallace, 2001; Walther & Boyd, 2002; Weinberg, Schmale, Uken, & Wessel, 1996).

In conclusion, the literature strongly suggests that OSNs such as Facebook are most effective tools for developing and maintaining relationships. Communicating with existing friends, reconnecting with old friends, and making new friend are the main reasons that users participate in OSNs.

2.4.5 Identity Performance in Social Network Profiles

Erving Goffman (1959) introduced a novel conceptualization of identity construction in his study of human interaction. His theory – ‘The Presentation of Self in Everyday Life’ – explains how people present themselves in face-to-face interactions, and why they present themselves differently in various everyday situations.

The theory suggests that human beings are actors who attempt to control the impression that others might have of them by presenting themselves as an ideal personality rather than their authentic one. Goffman (1959) calls the person who self-presents ‘the performer’, and the performer engages in ‘performance activities’ during their everyday self-presentation. The individual’s performance is defined as “the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers” (p.22). The performer tries to set the stage by presenting ‘similar props’ such as dress, look, and behaviour; props might also include nonverbal cues such as smiling, gestures, and body language (Kane, 2008).

In social interaction, as in theatrical performance, there is a ‘front region’ and a ‘back region’ or, more generally, the ‘front stage’ and the ‘back stage’. The front stage is a public place that is visible to a large audience. Thus, the performer or actor on this stage tries to present a desired and appropriate appearance to his/her audience, avoiding being embarrassed or embarrassing others. In contrast, the backstage, as Goffman explains, is a hidden or private place, “where the camera is not focused at the moment or all places are out of range of ‘live’ microphones” ... and “the impression fostered by the performance is knowingly contradicted as a matter of course” (Goffman, 1959, p.121 & p.112). Because access to this place is selective and limited to small groups, actors feel more relaxed and more able to be themselves with fewer concerns.

Goffman (1959) also indicates that there are two types of self-expression that individuals use when they represent themselves: One is ‘give’, and the other is ‘give off’. In ‘give’ expression, individuals can directly disclose information that reflects their personality (for example, their likes, dislikes, interests, experiences). However, the ‘give off’ can be communicated or connoted by clothing, hairstyle, or overall appearance.

Goffman's interaction order can be also be extended and applied to online settings. The World Wide Web is a distinctive social environment that enables individuals to construct their personal or private home pages to present themselves – including their work affiliations, experiences, hobbies, interests, thoughts and beliefs – to a significantly large audience. Papacharissi (2002, p.644) reports that a personal web page is an ideal setting for presenting the self as Goffman theorises, because it enables people to have “maximum control over the information [they] disclose”.

Individuals can also present themselves on these online personal pages through the use of various tools, including direct written text about the self – that is, ‘giving’ – and indirect presentation through hyperlinks, photos, and animation – that is, ‘giving off’. Developing a personal online page is not that simple for ordinary users. It requires technical knowledge of HTML technology, and the cost of hosting the site. However, OSNs and, more generally, Web 2.0 applications, have effectively opened a new era in the development and control of personal homepages in a simple and cost-effective way.

Creating a free personal page called a ‘profile’ is the first step in joining most social networking sites such as Facebook. Most OSNs have the same web page format for profile entries, which contain several personal details that publically represent the participants. Some of these entries are mandatory for establishing the account, such as the user's name, which could be real or pseudonymous, and a user email, which needs to be active. Other entries – such as gender, birthday, relationship status, contact information, hometown, religion, political views, educational background, and hobbies – are optional. The profile information can be updated from time to time and, in some social network sites, extra categories can be added.

Once the profile is established, a user can “express salient aspects of their identity” (Boyd, 2007b, p.11), “describe their daily lives and happenings” (Patrick, Jacqueline, & Brian, 2011, p.81), and give themselves an online existence (Lewis & Ariyachandra, 2010). Undeniably, creating an identity presence (that is, a profile) on OSNs has become one of the major topics of academic inquiry. Researchers generally agree that this feature is one of the major functions that attract users to OSNs (see Joinson, 2008; Manago, Graham, Greenfield, & Salimkhan, 2008; Mishra, 2010; Neale & Russell-Bennett, 2010).

Many of the activities on OSNs can be seen to reflect Goffman's (1959) concept of 'performing' self-presentation and information management. Facebook, for example, enables users to customize their personal presentation by both showing and concealing information in a bid to create what they believe is the ideal personality. This is also called 'impression management', where users present themselves positively in order to make a good impression (Boyd, 2014; Boyd & Ellison, 2007; Boyd & Heer, 2006).

Honest self-presentation is more common in OSNs (Cassidy, 2013). Because OSNs are more likely to be used to facilitate real relationship connections (that is, connections with known people in real life) (DiMicco & Millen, 2007; Joinson, 2008), it is "difficult to create online selves that wander too far from the embodied ones" (Baym, 2010, p.115).

In OSNs such as Facebook, users can present themselves directly by 'giving' some personal information that reflects their personality; for example, they can disclose who they are and what they like and dislike explicitly in writing (Boyle & Johnson, 2010). Through uploading personal photos or videos, users can also 'give off' "certain expressions about them that they did not mean to share"; for example, the shared photos or videos might show "their choice in clothing, hairstyle, or overall appearance" (Boyle & Johnson, 2010, p.139).

In OSNs, the public status or public post to all friends (for example, 'Wall' posts in Facebook) represents the 'front stage', as Goffman (1959) explained, where actor or user can more publically present the self to the audience in an appropriate manner. The 'back stage' in OSNs can also be created through the use of controlling techniques – such as the use of private messages, emails, or restricted profile visibility – that enable the user to restrict or limit access to the presented information.

'Context collapse' in OSNs is an important concept when it comes to discussing issues related to identity performance and impression management behaviour (Marwick & Boyd, 2011). As Boyd (2014) explains, context collapse occurs "when people are forced to grapple simultaneously with otherwise unrelated social contexts that are rooted in different norms and seemingly demand different social responses" (p.31). As Goffman (1959) explains, self-presentation and impression management varies with the context; this context includes the people to whom we are talking, and the location of the discussion. In face-to-face

communication, the performer usually has a homogenous audience group within a specific contextualised boundary, where controlling the impression and presenting the self in an appropriate manner is easier and more effective.

Online social networks, on the other hand, are designed to collapse various audiences from different spaces and different times into a single situation (for example, Facebook Friends). Such diversity of audience and lack of audience segmentation complicates the ability to make an impression. This is because the management of self-presentation behaviours is difficult, and “may create a lowest-common denominator effect, as individuals only post things they believe their broadest group of acquaintances will find non-offensive” (Marwick & Boyd, 2011, p.122).

Recently, Boyd (2014) investigated the impact of context collapse on teens’ self-presentation behaviour on OSNs such as Facebook. The study findings highlight the fact that in such applications, “teens struggle to make sense of different social contexts and present themselves appropriately, one thing becomes clear: the internet has not evolved into an idyllic zone in which people are free from the limitations of the embodied world. Teens are struggling to make sense of who they are and how they fit into society in an environment in which contexts are networked and collapsed, audiences are invisible, and anything they say or do can easily be taken out of context” (p.53).

2.4.6 Privacy in Online Social Networks

The concepts of ‘private’ and ‘public’ cannot be defined without their cross-referencing (Boyd, 2007a). ‘Private’ refers to the case of being “in here, personal, intimate, closest to the self, secluded from unwanted others, where we have ‘privacy’ and are free to be ourselves”. In contrast, ‘public’ is “out there, impersonal, distant, formal” (Pitkin, 1981, p.328). With regard to information disclosure, privacy refers to “the ability of the individual to personally control information about one's self” and to safeguard against risky disclosure (Stone, Gueutal, Gardner, & McClure, 1983, p.460). We can thus deduce that ‘privacy concerns’ are associated with beliefs about who will access a person’s disclosed information and how it could be used against them to benefit others (Dinev & Hart, 2006). The booming popularity of OSNs and the subsequent levels of self-disclosure raise major online privacy

concerns (Bhagat, et al., 2010; Gross & Acquisti, 2005; Hile, 2011; Kisilevich & Mansmann, 2010). In fact, participation in OSNs can violate a user's privacy in several ways.

Firstly, the nature of participation within OSNs is open, "public-by-default, private-through-effort mentality" (Boyd, 2014, p.62). In Facebook, for example, the default position of the privacy setting is always to share broadly, encouraging users to "tell [their] life story" (Facebook Timeline in 2013). Even with a change in the privacy settings to private position (friends only), others who are authorised to see your content can also copy it and share it publicly. In other words, "the information shared between users of online social networks is never really private" (Hillstrom, 2010, p.65). Thus, the more media and data uploaded to the users' profiles, the greater the disclosure, risk, and privacy concerns users face (Jones & Soltren, 2005; Squicciarini, Shehab, & Paci, 2009).

Secondly, OSNs attract the interest of third parties who seek to view and collect participants' disclosed information for malevolent purposes. Facebook, for instance, has developed into a platform upon which other companies can offer games and applications. These companies might have different levels of access to users' information, and this leads to its unwanted collection and use. Another factor is that the shared information is stored within SN applications. Thus, it is not only accessible to others, but can also be searched and read over a long period by unknown users, and for various purposes (Boyd, 2007b). Additionally, although this information is shared with friends, the friendships in OSNs are very broad and can include complete strangers or acquaintances that we do not really know and trust.

Both self-disclosure and privacy control are important to the success of OSNs and their users' satisfaction. Thus, there is a need to manage these two conflicting aspects of its use. The question is: How might users self-disclose significant information in OSNs while at the same time being able to control their privacy concerns and risks? Communication privacy management theory (CPM) (Petronio, 2002) is one of the important theories that mainly focus on this conflict between self-disclosure and privacy. More specifically, it is the theory that determines the ways in which relational actors manage and control their privacy boundaries and the disclosure of private information across various relationship contexts and criteria, including culture, motivation, individual differences, situations, and gender. CPM

also argues that feeling afraid of disclosing personal information can lead individuals to create boundaries and introduce restrictions with regard to the types of information that they consider public or private, and to control access to this information.

OSNs do offer users different techniques to manage and control their privacy boundaries. In most, there is a privacy settings' page that provides users with flexible ways to control their information access. For example, Facebook enables users to specify who can see them in public searches, or to disable this search feature. It also enables users to restrict their profile information access to 'Friends', 'Friends Of-Friends', a specific 'Network' or 'No One' (Zuckerberg, 2009). Facebook also provides users with advanced settings that enable the sharing of specific content with specific friends only, and that prevent unwanted access by giving blocked status to undesired contacts.

Tufekci (2008) confirms the CPM theory, suggesting that OSN users limit their profile visibility and accessibility to wanted contacts only, or that they use nicknames if they are concerned about their disclosed information being made public. This helps with continuing their OSN interaction and allows them to disclose and share personal content. Patrick et al. (2011) produced conflicting results, however, reporting that the boundaries within OSNs are not clearly defined; it is impossible, they claim, to erect boundaries around a specific group whom you trust, and this imposes restrictions on self-disclosure.

Awareness of the negative consequence of violating user privacy on OSNs is an important issue discussed in the literature. Studies have shown that users do disclose personal information and are not completely aware of the negative consequences of such disclosure (for example, Gross & Acquisti, 2005; Strater & Lipford, 2008; Tow, Dell, & Venable, 2010). Gross and Acquisti (2005), for instance, analysed the online behaviour of more than 4000 students and showed that most (approximately 82%) were willing to disclose their personal information (for example, birth date, cell phone number, and personal address), and that few modified their default privacy setting to increase their privacy protection. This suggests that students are less likely to be aware of the actual risks associated with such disclosure.

Strater and Lipford (2008) also studied the online behaviour of Facebook users, focussing on the efficiency of current user strategies for controlling their privacy. They argue that Facebook leads its users to disclose personal information, but that

users are generally unaware of the consequences. This highlights the need for Facebook to provide a special mechanism to alert users to privacy concerns and to limit user disclosure. Tow et al. (2010) also analysed the profiles of 300 users in an Australian network and found a relationship between privacy concerns and social awareness. Users are not completely aware of the negative consequences and risks of disclosing personal information online. The authors recommend that government agencies and OSNs provide campaigns to inform users of the real risks associated with such sharing and disclosure.

Other researchers, however, have found that OSN users are aware of information disclosure risks, but still feel comfortable about providing information. For example, Debatin et al. (2009) conducted an online survey to examine student privacy concerns and awareness of consequential risks. The result indicate that the majority of participants were concerned about their privacy, claiming to be aware of the privacy risks, and understanding the privacy setting and using it. However, they continued to disclose information online. A similar result arose out of Govani and Pashley's study (2007), where the majority of participants claimed they were aware of the associated risks and knew about the privacy setting; however, fewer than half of them applied it.

The literature discusses several types of potential risks associated with infringing users' privacy on OSNs. With most online systems, people are concerned about their personal and private information being found by unwanted people and used inappropriately. For example, one could become a victim of 'identity theft' as the result of sharing too much identifiable information – sharing which is highly encouraged on OSNs (Archer & Boehm, 2009; Barbour, 2013; Gross & Acquisti, 2005). Cyberbullying is another concern associated with online personal information breaches; this practice is more popular among adolescents and teenagers (Cassidy, Brown, & Jackson, 2012; Li, 2006). Future employers are identified as an unwanted audience that concerns OSNs users. Reviewing the personal profiles of prospective candidates can give a future employer a negative impression and cost the person their job opportunity. This concern is supported by many prior studies (see Al Hasib, 2009; Brandenburg, 2007; Cain, 2008; Charnigo & Barnett-Ellis, 2007; Flesher, 2006; Fuller, 2006; Peluchette & Karl, 2008).

Digital stigma is another important social problem associated with the violation of personal privacy. Personal reputations are usually built or destroyed on the basis of the personal details that we disclose. Digital stigma occurs “when sensitive personal details are made public through online platforms, resulting in negative affect, a compromised reputation and persistent discrimination” (Trottier, 2014, p.1). While stigma is not a new phenomenon, it has come to be identified with the popularity of the internet, and online social media in particular. This is because, through these media, stigma is “transformed in significant ways. Information that was once scattered, forgettable, and localised is becoming permanent and searchable” (Solove, 2007, p.4).

In OSNs such as Facebook, “managing an online reputation is challenging” because stigmatizing information can be easily distributed and reach a large number of people very quickly (Trottier, 2014). Furthermore, performers (or users) in OSNs such as Facebook have less control over their audience due to the public nature of the technology (Boyd, 2007a) and context collapse issues on OSNs (Boyd, 2014). Additionally, even when persons do have more control over their information and decide not to share embarrassing personal content (for example, photos), such content might be submitted to OSNs by friends. This was the case in the suicide of Rutgers University student Tyler Clementi in September 2010, when his roommate Dharun Ravi shared content on Facebook and Twitter that revealed Clementi’s homosexuality.

Thus, the challenge in controlling one’s identity presence on OSNs is two-fold. We need to be aware of the need to limit the information that we deliberately post. However, we also need to be aware that “people may post information about us, tag us in photograph, link to us, and discuss us, and all of these uncontrollable bits of information about our identity may come up in searches whether we wish they did or not” (Baym, 2010, p.112). While stigma in OSNs is a major concern to many users, not all people share the same level of concerns. These levels of concern differ from context to context and from one sample to another.

In summary, we can say that there is universal agreement that participating on OSNs such as Facebook exposes users to certain privacy risks. OSNs provide users with an open social environment that supports information sharing and content exchanges. The boundaries within OSNs are not clearly defined, and the nature of

self-disclosure within the networks is open, public, and accessible to all. Thus, sharing and disclosure lead users to lose control over their information, and to increase the potential risks to their privacy.

2.5 STUDY MODEL AND HYPOTHESES

The theoretical analysis conducted in this thesis is based on an extensive literature review of many different research studies in information exchange theory and online information technologies. The literature review was conducted via a search of academic journals, books, government reports, conference proceedings, newsletters, workshops, seminars, and Internet sources. The review aimed to explore and understand the concept of self-disclosure on Facebook, and to identify the major constructs and factors that have the potential to have a significant impact on the levels of self-disclosure in this medium.

As the result of this literature review, the foundation for the model developed in this study is informed by Social Exchange Theory (SET) (Thibaut & Kelley, 1959), and Social Penetration Theory (SPT) (Altman & Taylor, 1973), as explored in Section 2.1.2. SET views social relationship as economic exchange where individuals engage in social interaction after analysing and weighing the costs (for example, the loss of social independence or privacy) and rewards (for example, companionship, affection, or social support) of the relationship.

When applied to self-disclosure and relationships, SET gave rise to SPT, which explains how self-disclosure grows with deepening relationships between individuals (Altman and Taylor, 1973). In accordance with SET, SPT proposes that individuals decide to disclose more information with others when they perceive more benefits and less cost in so doing. This current study also employs the notion of cost-mitigating view (Krasnova, et al., 2010), which suggests that control and mitigation of the cost perception will impact self-disclosure behaviour.

SET and SPT are the general theories that are typically applicable to all constructs of self-disclosure on Facebook, and are based on the weighing of its costs and benefits. In addition, each construct is also related to, and explained by interpersonal interaction and social behaviour theories to specifically explain and justify existing self-disclosure tendencies. These theories include The norm of reciprocity theory (Jourard, 1971), as explained in Section 2.1.4; Uncertainty reduction theory (URT) (Berger and Calabrese, 1975), as explained in Section 2.1.2; Self-presentation theory (Goffman, 1959), as explained in Section 2.4.5; and

Communication privacy management theory (CPM) (Petronio, 2002), as explained in Section 2.4.6.

2.5.1 Factors Predicting Self-disclosure

Maintenance of Offline Relationships

As previously indicated, the unique capability of maintaining offline relationships on OSNs such as Facebook is one of the most important and distinctive benefits that such applications provide their users. According to SET and SPT, the greater the perception of the benefit of social relations, the greater the communication between parties, and the greater the interaction and self-disclosure. Thus, it is proposed that the ability to ‘maintain offline relationships’ (a benefit) on Facebook increases self-disclosure.

Furthermore, SPT suggests that people who have known each other for a long time are more likely to display higher levels of social penetration and are more likely to perform more self-disclosure, compared to people who have a short friendship history or a superficial relationship. In consequence, people who happen to have strong and lasting offline relationship should be more likely to mutually self-disclose on Facebook. Therefore, pre-existing long-term relationship offline should have a significant and positive impact on the level of online self-disclosure between users.

According to URT, people who share connections, similarities, and close relationships and ties have low levels of uncertainty, and this low uncertainty leads to high levels of mutual self-disclosure. Facebook is more likely to be described as a platform that connects offline people who share similar ties, identities, beliefs, and culture (Sheldon, 2009). As a result, Facebook users tend to expect high levels of predictability and low uncertainty from their Facebook friends with whom they already have these offline connections. Thus, they are also more likely to exchange high-level personal information than people who have no or less offline connection. In this way, UTR provides another mechanism for explaining how offline relationships can positively influence online self-disclosure on Facebook.

Another aspect that connects offline and online communities and could motivate self-disclosure on Facebook, is related to mutual offline activities and interests of the Facebook users. Facebook is typically used for connecting offline

friends and for discussing and planning their offline activities in the real world (Chatora, 2010; Elder-Jubelin, 2009). As the result of such discussions, personal information can be routinely exchanged in the form of messages, photos, opinions, propositions, and so on. Therefore, having mutual offline activities and/or interests is another significant motivator for self-disclosure on Facebook.

Because people's top friends in the real world (offline) are typically their same top friends on Facebook (Subrahmanyam, et al., 2008), an OSN community typically consists of people who like each other. This allows us to extend the liking theory (as explained in Section 2.1.4) to assume that self-disclosure within an online SN community should be significantly simplified and enhanced by offline friendship and liking. This is yet another mechanism that can be used to influence self-disclosure on Facebook.

In summary, we have illustrated and discussed several mechanisms that demonstrate that offline relationships can have a significant impact on self-disclosure on Facebook. All of these mechanisms can be overarched by the generalising concept of maintaining the offline relationships and social interactions of people who have met in face-to-face settings. The maintenance of offline relationship is thus hypothesised to be one of the important factors that could modulate self-disclosure on Facebook. From here, we derive our first hypothesis:

H1: The perceived opportunity to maintain offline relationships increases self-disclosure on Facebook

Relationship Initiating

As seen earlier, while Facebook and other OSNs are most likely to be used to maintain offline relationships, they also offer users a unique opportunity to form new relationships based on mutual interests and friends. This opportunity is another significant Facebook benefit and, according to SET and SPT, the perception of this benefit leads to an increase in self-disclosure.

SPT also posits that the positive development of a relationship is typically related to enhanced self-disclosure between communicating parties, where self-disclosure evolves from superficial to more personal and intimate (that is, enhanced depth of disclosure) to involve a wider range of shared topics (that is, enhanced

breadth of disclosure). It follows, therefore, that self-disclosure is an important motivator in forming relationships on OSNs; it is the way in which individuals send signals to others indicating that they would like to form and develop relationships with them (Ellison, et al., 2007).

Additionally, people very often form relationships based on mutual interests, and join communities such as Facebook because they have an urge to discuss and exchange personal information (that is, to self-disclose) in relation to the topic of mutual interest. The initiating of relationships based on mutual interests on Facebook, therefore, is a particular stimulant of self-disclosure.

In considering perceived loneliness and lack of offline friends, McKenna et al. (2002) also argue that online relationships (for example, on OSNs) make people less likely to experience loneliness, and make it easier to make friends offline two years after the initial online relationships are formed. The study also indicates that people who feel lonely are more likely to self-disclose online in order to form new and desirable relationships.

In fact, Krasnova et al. (2010) tested the relationships between the motivation for building relationships on OSNs and self-disclosure – more specifically the breadth of self-disclosure (amount) – based on a sample of (mostly) German college students. Their study demonstrates that such motivation increases users' breadth of self-disclosure as they aim to establish common ground with new friends. This current study, however, modifies the Krasnova et al. (2010) scale for measuring the self-disclosure construct, by adding new items to capture the tendency to engage in both 'breadth' and 'depth' of self-disclosure, which are fundamental to OSN participation and social relations success. This study also makes cross-cultural comparison between Saudi Arabia and Australia. Finally, it presents the outcomes of follow up interviews to create a deep understanding of the influence of cultural factors on self-disclosure.

On the basis of the above discussion, it is concluded that the perceived opportunity to initiate relationships in Facebook is likely to be a significant factor influencing self-disclosure. This conclusion leads to the following second hypothesis:

H2: The perceived opportunity to initiate new relationships increases self-disclosure in Facebook

Self-Presentation

We have seen that self-presentation is one of the major goals and motivations for participation in most OSN applications such as Facebook. Thus, based on the SET and SPT concepts, self-presentation (as a benefit) is more likely to increase the tendency for users to self-disclose on Facebook. It is believed that there is no point in creating a profile on Facebook “if your profile will not say enough about who you are” (Tufekci, 2008, p.33). It is also argued that extensive content generation (including content about the self) makes the personal profile attractive to online friends and random visitors (Chen & Sharma, 2013; Christofides, Muise, & Desmarais, 2009; Sullivan, 2006).

Additionally, according to the self-presentation theory (as explored in Section 2.3.5), the activities of a performer are transmitted to an observer (or observers) by means of verbal and non-verbal communications and/or expression. Therefore, performance activities (or self-presentation) are identified as a type of self-disclosure; however, this self-disclosure might not be accurate in its attempt at making a particular impression (Leary & Allen, 2011).

Recent research conducted by Krasnova et al. (2010), however, has rather unexpectedly failed to demonstrate any significant relationship between self-presentation and self-disclosure on OSNs. As has already been explained, a possible reason for such a failure is likely to be the misconstruction of the survey tool questions (Krasnova, et al, 2010) related to self-presentation. These questions did not take into account the psychological reluctance of an individual to openly admit that she/he attempts to present her/himself to others in the best possible way. As a result, the evaluation of the impact of self-presentation on self-disclosure on OSNs (Krasnova, et al, 2010) is likely to be invalid.

On these grounds, and those explored earlier, we conclude that there are no valid grounds on which to dismiss self-presentation as a significant factor that positively influences self-disclosure on Facebook. This conclusion is further

strengthened by the fact that this current study uses a different scale for measuring self-presentation than the one used in the previous study, focussing more on presenting the self through the sharing of achievements and success (Lee, Quigley, Nesler, Corbett, & Tedeschi, 1999). Thus, the third hypothesis of our generalised model of self-disclosure on SNs can be formulated as:

H3: The perceived opportunities for self-presentation increase self-disclosure in Facebook

Reciprocity

Reciprocity is one of the significant benefits of more self-disclosure and interaction with friends on OSNs. According to SPT (Altman & Taylor, 1973), in the evolution of a successful relationship, increased levels of reciprocity lead individuals to stronger and closer relationships. This is because reciprocity aids in understanding others' opinions of the information revealed, and in determining whether or not the recipient is happy to continue the interaction and develop the friendship (Blau, 1992; Keller & Edelstein, 1989; Omarzu, 2000).

According to the norm of reciprocity concept earlier discussed, self-disclosure typically stimulates further self-disclosure from both parties – the individual who makes a disclosure and the recipient(s) of this disclosure. User-generated content (UGC) in OSNs (which can be regarded as self-disclosure, if it includes personal information) should thus stimulate other users to generate their own content; that is, to self-disclose. Indeed, if one user publishes content that is related to his/her personal information, this encourages his/her friends (other users) to do the same on the reciprocity basis of “you tell me and I’ll tell you” (Gouldner, 1960; Jourard, 1971a, p.66). Therefore, not only is UGC a type of self-disclosure (if related to disclosing personal information), it can also work as a significant stimulus for further self-disclosure in the OSN environment – a kind of positive feedback for self-disclosure. Thus, our fourth hypothesis linking Facebook and self-disclosure can be formulated as follows:

H4: Seeing other people generating personal content increases self-disclosure in Facebook

Privacy Concerns

As discussed earlier, the violation of user privacy is one of the greatest costs and concerns associated with using OSNs, especially with their extensive use. Thus, in accordance with the dictates of SET and SPT, privacy concerns (as a cost) decrease the tendency for self-disclosure on Facebook. Communication privacy management theory (CPM) (Petronio, 2002) also holds that each individual should establish and balance the expected benefits and potential risks of self-disclosure (by establishing its suitable and acceptable limits within a considered community) on the basis of his/her own views, concerns, and expectations related to public visibility. Thus, public visibility could be either a potential major motivator or significant inhibitor (if the privacy and security concerns prevail) of self-disclosure (Bateman, et al., 2011).

Prior research has found that the privacy risk perception has a negative influence on a Western user's self-disclosure in OSNs (Bateman, et al., 2011; Krasnova, et al., 2010). They seek to minimise their self-disclosure and aim to protect their information and personal details from unwanted audiences and potential risks. Based on these previous research findings, and the testing of this factor on a Western population, the fifth hypothesis governing the relationships between privacy concerns and self-disclosure can be formulated as follows:

H5: Perceived privacy concerns decrease self-disclosure in Facebook

2.5.2 Factors Mitigating Privacy Concerns

Anonymity

Gavison (1979) identifies three dimensions that enable individuals to control their personal information and maintain their personal privacy: anonymity, secrecy, and solitude. Solitude is more applicable to offline interactions and face-to-face relationships, which occur when the person is physically absent from others (Dinev, Heng, & Smith, 2009; Westin, 2003). Thus, the focus in this context is on anonymity

and secrecy, and the way in which they mitigate users' privacy concerns on OSN applications such as Facebook.

A growing number of researchers make a strong demand for anonymity in online systems, highlighting its efficiency in promoting and defending a person's privacy, especially given the public nature of online spaces (for example, Chen, et al., 2008; Dinev, et al., 2009; Hoffman, Novak, & Peralta, 1999; Oliver, 1995; Sobel, 2000; Teich, Frankel, Kling, & Lee, 1999; Waldo, Lin, & Millett, 2007).

Al Teich (1999), for instance, argues that anonymity offers many benefits to internet users, such as the ability to engage in political advocacy, receive counselling, and perform commercial transactions without disclosing their identities or losing their privacy. Al Teich believes that the right to communicate anonymously is a 'strong right', and any ban on online anonymous communication impinges on personal privacy.

Another argument comes from Chen et al. (2008), who believe that online users with real names are highly demanding of privacy rights. In remaining anonymous online, however, users choose not to reveal identifiable information, and are then less likely to need privacy rights. Hoffman et al. (1999) also highlight this view of anonymity and privacy control saying that "on the Web, anonymity is valuable and regarded as one of the most powerful methods of protecting information privacy" (p.130).

Waldo et al. (2007) also describe anonymity as an effective way of protecting personal information from being collected or used in unwanted ways. An example of this protection can be seen when data is collected for statistical purposes; responses will be less candid if a person's real identity cannot be hidden. Anonymity makes the respondents feel that their privacy is safe, and ensures that the interaction can take place without participants having to reveal their identity. A further example comes from Oliver (1995), who conducted a study that involved the use of patients' medical records relating to emergency medical (and subsequent) care. To effectively investigate these medical records while at the same time protecting the patients' privacy, researchers used identification numbers rather than patients' names.

OSNs encourage users to join these applications using their real name and a detailed identity, rather than providing false information (Zhao, et al., 2008). Some

groups of OSN users, however – particularly from some non-Western cultural backgrounds (for example, women from some Arab and Middle Eastern countries) – can have a significantly greater tendency to conceal their real identities and maintain more privacy control (Al-Kahtani, Ryan, & Jefferson, 2006; Al-Saggaf & Begg, 2004; Doumato, 1992). For such groups of users, anonymity or perceived anonymity could be a significant factor affecting their privacy concerns on OSNs. Therefore, the sixth hypothesis relating to privacy concerns and the ability to be anonymous on Facebook is formulated as:

H6: The ability to remain anonymous to members of Facebook communities reduces users' privacy concerns related to disclosure on Facebook

Secrecy

Perceived secrecy is defined as the ability to purposely keep something concealed (Bok, 1984). There is some confusion and some overlap between the concepts of secrecy and privacy; while many think that they are the same, they actually are not. In fact, while secrecy overlaps with privacy, what is private is not always secret. Privacy does not always need to hide, and secrecy hides far more than what is private (Bok, 1984).

As explained by Gavison (1979) and earlier noted, secrecy (or the ability to hide important information) helps to control one's privacy. Bok (1984) also points out that disclosing information about the self is common in human interaction, and secrecy is the way a person can protect their personal life and retain control of vital information. According to Communication Privacy Management Theory (CPM) (Petronio, 2002), creating boundaries or restrictions for accessing a person's information is one way to control privacy. The secrecy technique is one of the methods used to create these restrictions, and to regulate access “to information about us and to our activities, space, and possessions” (Margulis, 2003, p.416). Thus, when information about the self is important, and sharing it publically will have a negative effect, then the secrecy technique is required.

In OSNs, where sharing content is public by default (Boyd, 2014), perceived secrecy – the ability to hide vital information – helps to regulate access to our important information, and reduces perceived concerns about the violation of our privacy (Dinev, et al., 2009). From this point, we hypothesise that:

H7: Perceived secrecy reduces the privacy concerns surrounding disclosure on Facebook.

2.5.3 Summary

Seven major factors related to self-disclosure on Facebook have been identified. Five of these are likely to have a significantly greater impact (either motivating or inhibiting), and two are likely to mitigate the cost perception of self-disclosure (that is, the privacy concern) that impacts self-disclosure behaviour (see Figure 1 below). These factors have then been used to formulate seven hypotheses that describe the relationship between Facebook use and self-disclosure – hypotheses that will be investigated in this study.

The factors that are proposed to positively affect self-disclosure are identified as Maintaining Offline Relationships, Initiating Relationships, Self-Presentation, and Reciprocity. It is hypothesised, on the other hand, that Privacy Concerns have a negative impact on self-disclosure. The two factors proposed to mitigate privacy concerns are identified as Anonymity in online communities, and Secrecy. Below is the complete list of hypotheses that are tested in this study:

- H1: The perceived opportunity to maintain offline relationships increases self-disclosure on Facebook
- H2: The perceived opportunity to initiate new relationships increases self-disclosure in Facebook
- H3: The perceived opportunities for self-presentation increase self-disclosure in Facebook
- H4: Seeing other people generating personal content increases self-disclosure in Facebook
- H5: Perceived privacy concerns decrease self-disclosure in Facebook
- H6: The ability to remain anonymous to members of Facebook communities reduces users' privacy concerns related to disclosure on Facebook
- H7: Perceived secrecy reduces the privacy concerns surrounding disclosure on Facebook

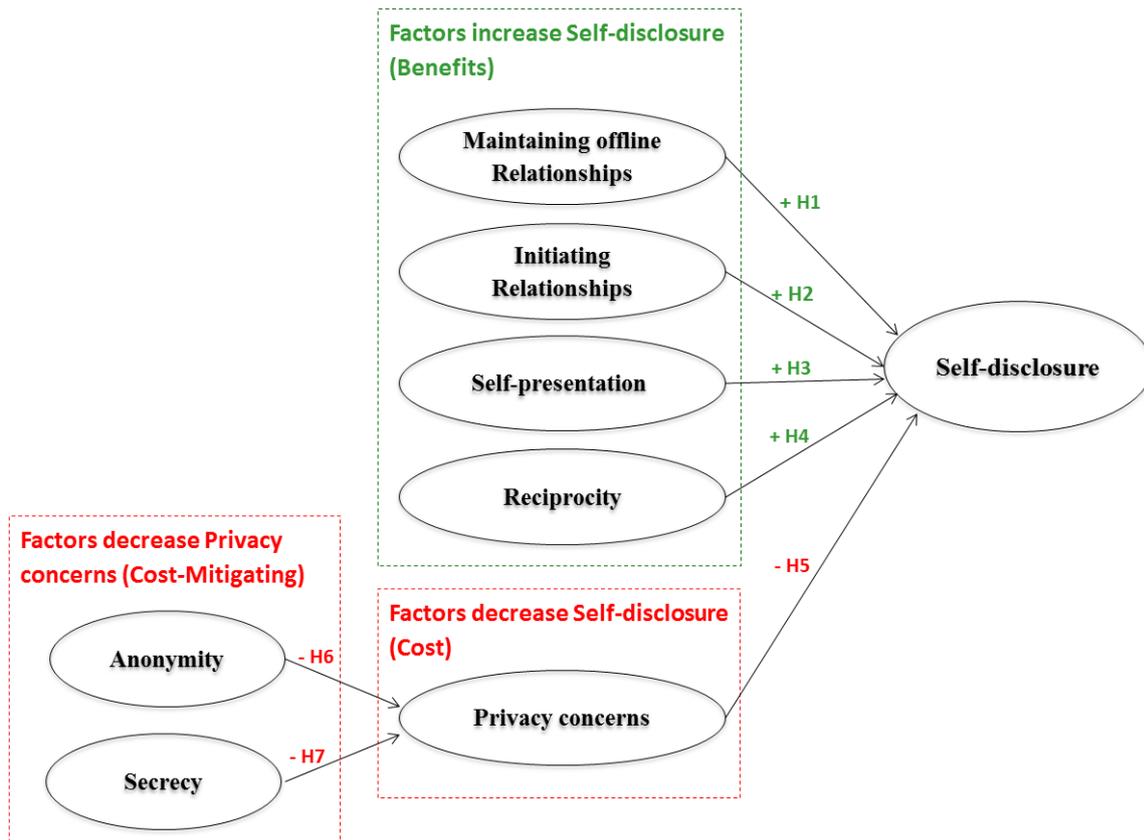


Figure 1: Study's Theoretical Model

Chapter 3: Methodology

3.1 RESEARCH DESIGN

The intent of this study was to provide a sophisticated cross-cultural understanding of self-disclosure on Facebook in Saudi Arabia and Australia. A sequential explanatory mixed methods design (Creswell & Clark, 2010; Ivankova, et al., 2006; Johnson & Onwuegbuzie, 2004) was employed to answer the research questions. This methodological design consists of two main sequential phases: 1) a quantitative study, and 2) a follow-up qualitative study. The outcomes of these two phases are connected in the intermediate stage of the study.

In the first quantitative phase, an online questionnaire was used to establish a general understanding of self-disclosure on Facebook across two different cultures. Through a large demographic group of Saudi Arabians and Australians (Saudi Arabia n=308, and Australia n=351), the study statistically described participants' self-disclosure and its relation to other variables of Facebook usage. It also focused on revealing the predictive power of seven selected factors that relate to self-disclosure on Facebook. Four of these factors – maintenance of offline relationships, initiation of relationships, self-presentation, and reciprocity – are proposed to increase self-disclosure. However, another factor – privacy concerns – decreases self-disclosure. The two remaining factors – anonymity and secrecy – are proposed to mitigate the cost of such concerns (see Figure 1). The study also used nationality indicators to separate results for both nations and to statistically compare them. From this first phase, and as a prerequisite for employing the mixed methods design, a number of participants from each culture were selected to participate in the second qualitative phase of the study.

In this second phase of the study, semi-structured interviews were conducted with twenty participants from both Saudi Arabia (n=12) and Australia (n=8). The collected data was used to build an in-depth explanation of the quantitative results, including a detailed understanding of the participants' self-disclosure on Facebook, and of how the proposed factors (in the earlier quantitative phase) influence such disclosure. This phase also gave considerable attention to the cultural differences of

the two samples, and of how such differences might affect participants' self-disclosure on Facebook. The second phase also included the analysis of a large number of textual responses (n=391) to the open question included in the online questionnaire in the first phase (Saudi Arabia n=190, Australia n=201). This open question aimed to collect a wide range of opinions and views on self-disclosure on Facebook. Such data was useful in enriching the overall study results.

Specifically, the following research questions guided this sequential explanatory mixed methods study:

How does self-disclosure on Facebook differ between Saudi Arabian and Australian cultures ?

1. What is self-disclosure on Facebook?
2. What are the factors that influence self-disclosure on Facebook?
3. How does self-disclosure on Facebook, and the factors that influence it, differ between Saudi Arabian and Australian cultures ?

The following hypotheses were tested through this study:

- H1: The perceived opportunity to maintain offline relationships increases self-disclosure on Facebook
- H2: The perceived opportunity to initiate new relationships increases self-disclosure on Facebook
- H3: The perceived opportunities for self-presentation increase self-disclosure on Facebook
- H4: Seeing other people generating content, including personal content, increases self-disclosure in Facebook
- H5: Perceived privacy concerns decrease self-disclosure on Facebook
- H6: The ability to remain anonymous to members of Facebook communities reduces users' privacy concerns surrounding self-disclosure on Facebook
- H7: Perceived secrecy reduces the privacy concerns of self-disclosure on Facebook

3.1.1 Mixed Method Design

Overview of Quantitative, Qualitative, and Mixed Methods

There are two general methodological approaches addressed in the research literature: quantitative and qualitative. Creswell (2009, p.4) describes the quantitative approach as “a means for testing objective theories by examining the relationship among variables,” and the qualitative approach as “a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem”. The quantitative approach is associated with a positivist orientation that encourages researchers to begin with assumptions, to then develop instruments, measure variables, and assess the statistical results (Atkinson & Hammersley, 1994). However, qualitative research is associated with constructivism, which focuses on understanding the phenomena, building the principles, and describing the research problem in detail (Bryman & Bell, 2011). Both approaches have distinct characteristics, rationales for use, and advantages and disadvantages. Table 3 presents a brief comparison of these two methodological approaches.

Table 3 *Characteristics of Quantitative and Qualitative Research Design*

Prototypical Characteristics	Quantitative Research	Qualitative Research
Type of data	Describes the phenomena numerically	Describes the phenomena as a narrative
Analysis	Statistics are descriptive and inferential	Identification of themes
Scope of inquiry	Specific questions or hypotheses	Broad, thematic analysis
Primary advantage	Large sample, statistical validity, accurately reflects the population	Rich, in-depth narrative description of sample
Primary disadvantage	Superficial understanding of participants' thoughts and feelings	Small sample, not generalised to the sample population

Source: VanderStoep & Johnson, 2009, p.7

Mixed methods research is an alternative research approach that complements the traditional qualitative and quantitative approaches, and presents a third methodological approach (Creswell & Clark, 2010; Johnson & Onwuegbuzie, 2004; Ridenour & Newman, 2008; Tashakkori & Teddlie, 2003). Mixed methods refers to

“the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration” (Johnson, Onwuegbuzie, & Turner, 2007, p.132). It is more about ‘integrating’ and ‘linking’ than simply collecting qualitative and quantitative data (Creswell & Clark, 2010).

Creswell and Clark (2010) propose four basic mixed methods designs that provide researchers with effective frameworks to design their studies: 1) the convergent parallel design that uses concurrent timing to implement the quantitative and qualitative; 2) the explanatory sequential design that occurs in two distinct interactive phases, with a second phase explaining the first phase result; 3) the exploratory sequential design that builds from the exploratory results to the testing of these initial findings; and 4) embedded design where a researcher collects and analyses both quantitative and qualitative data within a traditional quantitative or qualitative design.

Rationale for Mixed Methods Design

Overall, the rationale for employing mixed-method research is to use it when neither quantitative nor qualitative methods are alone sufficient to provide a holistic understanding of a phenomenon for which there is extant research, and the combination of methods provides a better understanding of a research problem or issue (Creswell & Clark, 2010; Ivankova, et al., 2006; Tashakkori & Teddlie, 2003). This design is not used to replace the quantitative or qualitative approaches, however; rather, it is employed to “draw from the strengths and minimize the weaknesses of both in single research studies and across studies” (Johnson & Onwuegbuzie, 2004, p.14).

Employing mixed methods also significantly contributes to increasing the accuracy and validity of results (Begley, 1996; Elizabeth & Sharon, 2005; Foss & Ellefsen, 2002). Carr (2009) is one example of the research that found that one research approach was not sufficient and, therefore, supports a mixed methods approach. This study (Carr, 2009) employed a mixed methods approach to illuminate the experience of people who were undergoing surgery, and to use the findings to change surgical practice. A quantitative methodology was used to examine the

general prevalence of pain after surgery, and a qualitative methodology to provide further explanation of, and therefore enrich, the quantitative results. Researchers concluded that “knowledge of the processes responsible for inadequate pain management can be illuminated by using explanatory mixed methods [quantitative followed by qualitative] research designs” (p.124).

In another case, Wu (2012) used quantitative data to expand and verify the qualitative findings that emerged when investigating factors that influence the acceptance of emergency alert technology currently employed at Eastcoast University. Qualitative findings offered an in-depth view of the local meanings of perceived usefulness and perceived ease of use, and a quantitative method was then used to generalise this view. Researchers suggest that mixed methods sequential exploratory design – that is, a qualitative followed by a quantitative approach – “provides opportunities to move beyond the vague conceptualizations of “usefulness” and “ease of use” and to advance our understanding of user acceptance of technology in context” (p.172). These are but two examples that illustrate why one research approach might not be sufficient, and therefore, why a mixed methods approach should be considered.

While mixed methods is useful in achieving a comprehensive understanding of the research problem, it does require more time, resources, and skill than a single methodology (Bazeley, 2002; Creswell & Clark, 2010). Another challenge arises when the results of one method do not agree with the results of the other, and researchers are left to question the value or the validity of one of the methods (Salehi & Golafshani, 2010).

3.1.2 Sequential Explanatory Mixed Methods Research Design

Introduction and Definition

Based on the research objectives and context, this research employed the two-phases, sequential explanatory mixed methods research design. In this design, quantitative (numeric) data was first collected and analysed, follow-up qualitative (text) data was collected and analysed, and the two phases were connected in the intermediate stage of the study (Collins, Onwuegbuzie, & Sutton, 2006; Creswell & Clark, 2010; Tashakkori & Teddlie, 2003). Morgan (1998) also calls this design ‘a qualitative follow-up approach’. Table 4 introduces the main characteristics of the

explanatory design, including its definition, purpose, level of interaction, and strategies for analysis.

Table 4 *Prototypical Characteristics of Explanatory Design*

Prototypical Characteristics	Explanatory Design
Definition	Methods implemented sequentially, starting with quantitative data collection and analysis in Phase 1, followed by qualitative data collection and analysis in Phase 2, which builds on Phase 1
Design purpose	Need to explain quantitative results
Typical paradigm foundation	Post-positivist in Phase 1 Constructivist in Phase 2
Level of interaction	Interactive
Priority of the strands	Quantitative emphasis
Timing of the strands	Sequential: quantitative first
Primary point of interface for mixing	Data collection
Primary mixing strategies	Connecting the two strands: Moving from quantitative data analysis to qualitative data collection Using quantitative results to make decisions about qualitative research questions, sampling, and data collection in Phase 2
Common variants	Follow-up explanations Participant selection

Source: Creswell & Clark, 2010, p.73

Rationale for Sequential Explanatory Design

A basic justification for employing mixed methods sequential explanatory design is that collecting qualitative data in a second phase is important for the sophisticated explanation of the initial quantitative results (Creswell & Clark, 2010). While quantitative findings offer general explanations for the relationships among variables, they cannot alone provide a holistic understanding of the problem (Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2003). That is, they do not

constitute a detailed understanding of what the statistical tests or effect sizes actually mean (Creswell & Clark, 2010; Lawrence, 2003).

The follow-up qualitative phase, then, can help build this understanding, by providing a more in-depth explanation of the statistical results of the quantitative phase, and a complete picture of the research problem (Carr, 2009; Creswell & Clark, 2010; Gasiewski, et al., 2012; Ivankova, et al., 2006). This follow-up qualitative data is also useful for understanding the reason behind quantitatively significant (or non-significant) results, positive-performing exemplars, outlier results, surprising results, or for learning more about a specific group of participants, including the effect of their culture and background (Creswell & Clark, 2010; Morse, 1991). Furthermore, it offers an opportunity for cross-validation of findings across techniques to enhance their generalisability, while also maintaining an emphasis on contextual differences (Gasiewski, et al., 2012).

This research aimed to build a sophisticated understanding of self-disclosure on Facebook, and mixed methods design was an effective approach to achieving this aim. The quantitative analysis established a general understanding of self-disclosure on Facebook across Saudi Arabian and Australian cultures, addressing the factors that predict self-disclosure in a large demographic group. This approach also allowed the selection of individuals from the first-phase data to participate in the second research phase. Qualitative data was then collected to complement the outcomes of the quantitative phase. Thus, the quantitative data provided a general understanding of the research problem, while the qualitative data analysis explored participants' views in more depth, thus providing additional insight.

Another major motivation for using the sequential explanatory mixed methods design arose from the interest in a cross-cultural comparison of the research problem. Researchers commonly agree that qualitative research is crucial in cross-cultural investigation. This is because qualitative research emphasizes an in-depth understanding of the cultural context, values, unique characteristics, behaviours, experiences and perspectives of research participants (Creswell, Shope, Plano Clark, & Green, 2006; Karasz & Singelis, 2009; Mechanic, 1989; Myers Michale & Tan Felix, 2002; Reiter, Stewart, & Bruce, 2010; Trotter, 1991). Use of this methodology, and in particular the follow-up qualitative study, helped to reveal data related to contextual issues that was not accessible by quantitative research (Creswell, et al.,

2006; Karasz & Singelis, 2009; Ponterotto, Costa, & Werner-Lin, 2002; Sheperis, et al., 2010; Venkatesh, et al., 2013), and improved the quality of the study by identifying culturally different determinants (Hines, 1993; Karasz & Singelis, 2009; Venkatesh, Brown, & Bala, 2012).

Strengths and Weaknesses

As with any type of mixed methods design, sequential explanatory design has its strengths and weaknesses. Creswell and Clark (2010) highlight its ‘straightforward nature’ as one of its main strengths, where the implementation steps, including the description and reporting, are clear and easy to follow. The length of time and effort required to collect the data for both phases, however, presents a major weakness. This is especially the case if the two phases are given equal priority, as is the case in this research. Further explanation of the strengths and weaknesses of sequential explanatory mixed methods design are listed in Table 5 below.

Table 5 *Strengths and Weakness of the Explanatory Design Approach*

Weakness	Strengths
Requires skills in quantitative and qualitative data collection	Simple to understand and identify
Sometimes difficult to determine aspects of the study for qualitative follow-up	No need to integrate the two types of data
Need to determine whether to use the same study participants in both research phases or whether to choose a new sample for the qualitative phase from the original population	Methods conducted separately; a research team is unnecessary
Institutional Review Board approval can be difficult to obtain; inability to identify the number of qualitative participants needed until quantitative study has been conducted	

Source: Sheperis, et al., 2010, p.195

Priority, Connexion, and Visual Framework of the Procedures

As sequential explanatory research design in this current study used quantitative data to provide a general understanding of the problem, and the qualitative results to explain the findings of the quantitative study in more depth, a

priority was given to quantitative data. While some of the qualitative data (the open question inputs) were collected through the quantitative questionnaire, the analysis for the qualitative data was only made after the quantitative results were reported, using such result as a map for the qualitative data analysis. The two methods were then integrated during the interpretation phase. A connection between these two phases occurred on two levels. The first level of connection occurred during the sample selection for the follow-up qualitative phase, which was based on participants' responses to the earlier quantitative phase (see Section 3.2.2 for more details). The second level was the connection of the findings of the quantitative and qualitative analyses during the presentation of the overall results. Figure 2 illustrates the visual framework of the research procedures (Creswell & Clark, 2010; Ivankova, et al., 2006).

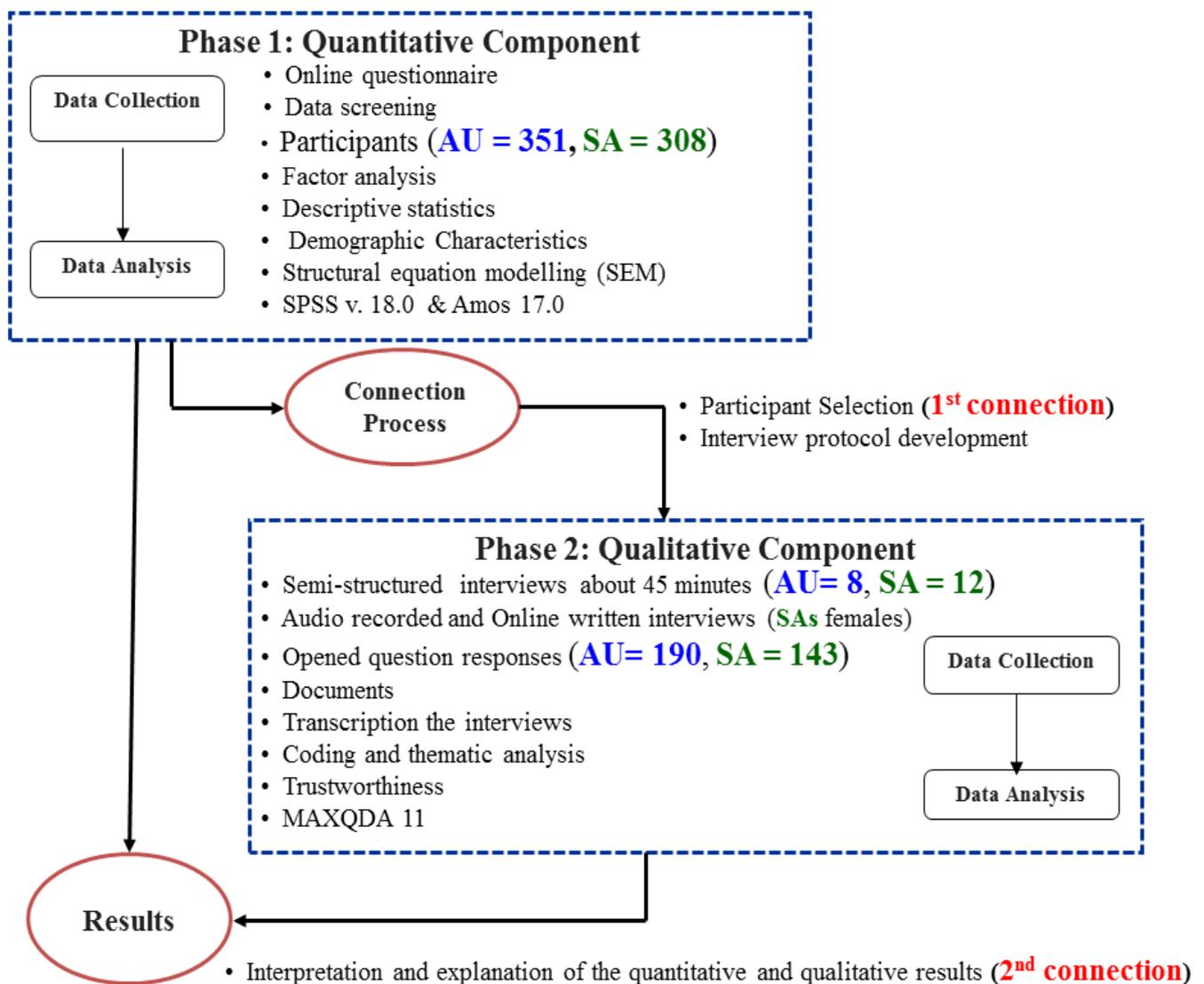


Figure 2: Visual framework of the procedures for the mixed methods sequential explanatory design of the study

Source: (Creswell & Clark, 2010; Ivankova, et al., 2006)

3.2 POPULATION AND SAMPLING

3.2.1 Identification of the Population

In this study, the target participants were 1) Facebook users, 2) who were 18 years old or older, and 3) who identified as either Saudi Arabian or Australian. Saudi Arabia was selected in this study because it represents a significantly different culture to the typically studied Western cultures. To give a point of comparison with Saudi Arabian culture for cross-cultural investigation purposes, Australia (Western culture) was selected as the second culture for the study (The national cultures of these two selected countries have been earlier discussed in Section 2.3).

In cross-national research, it is essential that researchers speak the languages of the target nations, and are familiar with their cultures and norms so that this knowledge can inform their findings. In this case, English (in Australia) is my second language, and Arabic (in Saudi Arabia) is my native language. Although of Saudi Arabian background, I am also familiar with Australia, where I have lived for more than seven years, and have strong friendships with many Australians. Therefore, the choice of these two countries for this study was the best option for effectively achieving its research goal.

Facebook is the most suitable example of OSNs for conducting this research for two main reasons. First, it has been widely adopted in Saudi Arabia and Australia and, as earlier discussed, has become one of the most significant daily online activities in these countries. Second, Facebook offers its services and interfaces in both Arabic and English. This enabled a more effective and neutral comparison of the use of Facebook in these two countries.

3.2.2 Determination of the Sample Size

Sampling is the process of choosing representative participants from a much larger population. Determining the appropriate sample size for both quantitative and qualitative research phases is important in mixed methods methodology (Onwuegbuzie & Collins, 2007).

The determined sample size for the quantitative study was estimated to be approximately N= 278, based on the following formula (Birchall, 2009):

$$N = \frac{t^2 \times p(1-p)}{m^2}$$

This sample size calculation was used assuming a confidence level of 95% and a margin of error at 5%, where N = the proposed sample size, t = the number relating to the degree of confidence (95%), p = an estimate of the proportion of Facebook users, and m = the proportion of error at 5%.

Comrey & Lee (1992) suggest a general rule for adequate sample sizes in factor analysis: 50 represents a ‘very poor’ sample, 100 is ‘poor’, 200 is ‘fair’, 300 is ‘good’, 500 is very good, and 1000 or more is excellent. In the present quantitative study, 659 valid respondents were received after screening the data – 308 from Saudi Arabia and 351 from Australia (more details on the data screening are given in Section 3.7.2 below).

This study exceeded the required sample size number, and satisfied the need to have more than 300 valid responses for each sample. Furthermore, the response rate (that is, the number of individuals who completed the survey divided by the number of eligible respondents in the sample) in Saudi Arabia was 76.05%, whereas 83.77% was achieved by the Australian sample. Table 6 shows the details of the quantitative study responses.

Table 6 *Quantitative Responses*

Entry types	Saudi Arabia	Australia
Uncompleted cases	182	87
Completed cases	443	400
Completed but invalid	135	49
Total valid cases	308	351
Total valid responses to the open question	190	201

With regard to qualitative study, “there are no rules for sample size” (Patton, 2002, p.244). Creswell and Clark (2007) suggest that with sequential explanatory mixed methods research design, the sample size for the follow up qualitative phase should come from a much smaller number of participants than the quantitative phase, recommending 4 to 10 interviews to obtain effective data. This is because qualitative data is mainly used for explanation, where a smaller sample can be sufficient; however, given the purpose of merging or comparing data (as in a convergent procedure), equal sample sizes might be required (Creswell, Plano Clark, Gutmann, & Hanson, 2003; Epler, 2011). A more common qualitative perspective holds that sampling should continue until saturation point is reached and a meaningful conclusion emerges (Fossey, Harvey, McDermott, & Davidson, 2002; Guest, Bunce, & Johnson, 2006; Sandelowski, 1995). Guest et al. (2006, p.78), suggest that “a sample of six interviews may have been sufficient to enable development of meaningful themes and useful interpretations”.

In this present study, 173 participants indicated they that would be interested in participating in the qualitative study – 61 from Saudi Arabia, and 76 from Australia. The selection of the target participants began randomly, with some consideration given to the need to have equal gender participation. In the end, an email invitation to participate in the study was sent to 15 Saudi Arabians and 15 Australians.

Twenty participants, 12 from Saudi Arabia (5 males and 7 females), and 8 from Australia (3 males and 5 females) agreed to participate in the follow-up interviews. There were more participants from Saudi Arabia because most of the Saudi females only agreed to participate if they could be interviewed anonymously online via written text. To gain sufficient data, this process required more participants than were required for the audio-recorded interviews with Australians, which provided a much larger amount of useful detail.

The quantitative analysis later revealed that Australian females self-disclose significantly more than males and, for that reason, it was appropriate to have more Australian females in the research sample. Furthermore, the number of participants in each qualitative sample met the sample requirements recommended in the literature, and also enabled the researcher to reach data saturation point (the point at which nothing new was being added to the interview discussions). The qualitative phase also included 391 useful responses to the questionnaire’s open question – 190 from

Saudi Arabian participants and 201 from Australian participants. The length of the responses varied, and averaged four to five lines.

3.3 DATA COLLECTION

3.3.1 Instrumentation

According to Fink (2003), there are four main types of survey instruments: self-administered questionnaire, interview, structured record review, and structured observation. Self-administration questionnaires and interviews are the most popular types of survey instrument (Fink, 2003), and were used for collecting the data in this quantitative and qualitative study, respectively.

A self-administered questionnaire is defined as a technique that asks respondents to complete and answer the questionnaire independently. Semi-structured interviews are defined as those questions “organized around areas of particular interest, while still allowing considerable flexibility in scope and depth” (May, 1991, p.191). Table 7 provides comparative information about the questionnaire and interview, including their characteristics, motivations for use, and advantages and disadvantages.

Table 7 *Interview vs. Questionnaire Surveys*

Interview	Self-administered Questionnaire
More expensive (personnel and training costs)	Less expensive
Requires interviewer recruitment, training, and standardization	No interviewers needed
Responses not private	Privacy conserved (anonymous survey)
Single administration	Multiple mailings/contacts
Clarification and explanation of items possible	No clarification possible
Few incorrectly completed surveys	Many incorrectly completed surveys
Higher response rate	Lower response rate
Interviewer bias	No interviewer bias

Source: Passmore, Dobbie, Parchman, & Tysinger, 2002, p.282

3.3.2 Instructions and Guidelines for Instrument Design

The literature offers many useful instructions and guidelines for creating effective questionnaires and semi-structured interview questions. For example, within the questionnaire design, Black et al. (1998) suggest ten major principles of question wording that help in making the questionnaire easy to understand. These include the use of simple language, avoiding jargon, keeping questions short and specific, avoiding ambiguities, avoiding double-barrelled questions (those with ‘and’ or ‘or’ in the wording), avoiding double negatives, avoiding loaded words, avoiding leading questions, not overtaxing the respondent’s memory, and avoiding hypothetical questions. It is also recommended that lengthy questionnaire content be avoided because it might not be responded to, might affect the data quality, and might be considered biased (Adams & Gale, 1982; Newell, Rosenfeld, Harris, & Hindelang, 2004; Sedera, Gable, & Chan, 2003; Weisberg, 2005). These principles and guidelines were considered in developing the questionnaire content for this research. Three to seven candidate items were also derived for each construct, and this is considered a reasonable number (Davis, 1989).

While grouping similar questions helps to increase accuracy (Black, et al., 1998), it is also believed that a random order helps in controlling the possible priming effects caused by responses to the first question (Posner, 1978). Thus, the order of the questionnaire items was systematically randomised to increase response validity. Using a negative wording format (or ‘reversed items’) is also a useful strategy for avoiding biased response in questionnaires (Nunnally, Bernstein, & Berge, 1967). In this strategy, one item should be presented in positive wording, and the second item (that measures the same construct) should be expressed in negative wording. Some researchers, on the other hand, believe that ‘reversed items’ can include systemic errors and are not clear enough to describe the construct, and that this leads to low data validity (Jackson, Wall, Martin, & Davids, 1993). To avoid biased responses and ensure response validity in the questionnaire, this study included three ‘reversed items’.

With the semi-structured interview, there are certain types of questions that researchers are encouraged to avoid, and others that need to be considered. For example, researchers should avoid loaded questions, double-barrelled questions,

leading questions, and (usually) presuming questions (Leech, 2002). They should also include certain types of questions such as ‘a grand tour question,’ by asking participants to provide a verbal ‘tour’ of something they have experience in, and an example question, which asks them to more specifically explain an experience (Spradley, 1979). These types of prompting questions keep the discussion going, and revive it in the event of inadequate responses (Leech, 2002). Ordering the interview questions is also important in gaining effective data. It is recommended that interviews should always start with easy and non-threatening questions, before moving to more threatening and critical questions (Weinberg, 1996). The current study carefully considered the above recommendations when developing the qualitative interview questions.

3.3.3 The Questionnaire Content

The design of the questionnaire for this research incorporated a cover letter and another eleven main sections (see appendix B). The cover letter outlines the purpose of the study, the advantages to its participants, the conventional nature of the study, and its duration. The eleven main parts of the questionnaire consisted of 47 questions that were adopted from existing validated scales wherever possible. Parts 1 and 2 in the questionnaire were multiple-choice questions. With the exception of Part 11, the responses were measured on a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Participants were asked to rate the extent to which they agreed or disagreed with each statement. Part 11 was comprised of open-ended questions that allowed the respondent to express their attitudes to, or opinions about self-disclosure on Facebook.

The following sections explain the questionnaire content in more detail. They also include the lists of items that had been proposed to measure each part of the questionnaire in this study. However, many of these items were modified or abandoned during the testing procedure, especially during the exploratory factors analysis procedure. (More details and information about the finalised scales are given in Section 4.4).

Part 1: Demographic and Screening Questions The literature shows that demographics and background characteristics – such as age, gender, marital status and nationality – considerably influence self-disclosure (Balswick & Balkwell, 1977; Chen, 1995; Derlega, et al. 1981; Tufekci, 2008; Won-Doornink, 1985). For this

reason, the quantitative questionnaire began with eight multiple-choice questions that collected data about the participants' demographics and background characteristics. This information was used for three main purposes: 1) to ensure participants' eligibility and exclude any who did not meet the study requirements (More details of sample eligibility were given in Section 3.2.1); 2) to check the accuracy of the survey sample (for example, having an equal or reasonable percentage of female and male participants); and 3) to describe and compare answers to the substantive survey questions.

Part 2: Attitude toward, and use of Facebook The second part of this questionnaire related to participants' attitude to and use of Facebook. Ross et al. (2009) designed a scale to explore how personality characteristics and competency influence the ways in which people utilize the medium for social purposes. The original version of this questionnaire consisted of 28 items that assess three distinct categories: (a) a person's basic use of Facebook, (b) a person's attitude to Facebook, and (c) the posting of personally-identifying information. For the purpose of the current study, five items (9 to 13) were retained from Ross et al.'s (2009) first two categories related to assessing Facebook usage and attitudes to it.

More specifically, the data that Ross et al.'s (2009) study was interested in gathering related to user frequency and the satisfaction of using Facebook, time spent online, the number of friends, and the number of Facebook groups people were members of. Ross et al. (2009) argue that a greater tendency to be sociable on Facebook can be demonstrated by the frequency of Facebook use, the number of 'Facebook Friends' a person has, and the number of Facebook groups they belong to. It is suggested that being sociable on Facebook leads users to more interaction and more personal content sharing. Therefore, this data helped to provide additional descriptive information about participants' use of Facebook and their self-disclosure.

Part 3: Self-disclosure (the dependant factor) As earlier discussed, the degree of self-disclosure has typically been measured in terms of both depth (intimacy) and breadth (amount). 'Depth' refers to the quality of the information disclosed, whereas 'breadth' refers to the quantity of the information disclosed (Altman & Taylor, 1973).

This research included 4 items (14 to 17) to measure the breadth of self-disclosure. Two of these items (14 and 15) were adopted from the General

Disclosiveness Scale (GDS) (Wheeless, 1978; Wheeless & Grotz, 1976), which is considered to be one of the most reliable and valid scales for measuring self-disclosure. Although GDS was developed for measuring face-to-face settings of disclosure, it has been validated and widely used in interpersonal and CMC studies (Bateman, et al., 2011; Cho, 2010; Lee, et al., 2008; Leung, 2002; Myers & Johnson, 2004). These items involved some wording modification to fit this specific research purpose and context. The additional two items – Items 16 and 17 –were borrowed from Krasnova et al. (2010), who paid more attention to developing a scale that specifically measures the amount of self-disclosure during participation on OSNs such as Facebook.

To determine depth of self-disclosure, seven items were used. Three items (18 to 21) from the GDS scale were employed. Another four items (20 to 24) were adopted from Parks and Floyd's (1996) scale, which is also considered a valid scale for self-disclosure research. Some wording modification was also made to make them applicable to this research context. Items 23 and 24 were reversed when analysing the data. Accordingly, in the findings, the highest score referred to the highest level of depth self-disclosure.

Part 4: Maintaining offline relationships (a self-disclosure predictor)

Three items (25 to 27) were used to assess how Facebook was used to maintain existing offline connections (that is, face-to-face friendships). The items were adopted from Ellison et al.'s (2007) scale that was developed to determine whether respondents used Facebook to keep in touch with someone with whom they shared an offline connection. Again, minor wording changes were made to suit this study context.

Part 5: Relationship Initiation (a self-disclosure predictor) Krasnova et al. (2010) developed a scale of three items for measuring the motivation to use Facebook for building new relationships. This research selected Items 28 to 30 of Krasnova et al.'s (2010) scale to measure relationship-initiation motivation.

Part 6: Self-presentation (a self-disclosure predictor) This research used three items for measuring self-presentation. Two items (31 and 32) come from Lee et al. (1999), and are more about presenting the self through posting about success and achievements, and through expressing the same attitudes as others on Facebook in an effort to be accepted. The last item (33) was adopted from Krasnova et al. (2010)

with some modification in order to works with use of Facebook, and to consider the psychological reluctance of an individual to directly say that they use Facebook to present the self in a favourable way.

Part 7: Norm of Reciprocity (a self-disclosure predictor) This research used three items (34 to 36) to measure the norm of reciprocity between Facebook users. The current research used Kankanhalli et al. (2005) as a foundation for this scale, and it was modified for purposes of this study. The Kankanhalli et al. (2005) study mainly focused on knowledge sharing among people in online communities, where the norm of reciprocity in these kinds of communities occurs through helping each other. More specifically, when an individual receives useful information from other members in the community (for example, information to solve problems or to answer queries), the receiver should reciprocate by helping others with information or answers to questions when they need it. Some examples of this reciprocity are: 1) when I share my knowledge through an online community, I believe that I will get an answer for giving an answer, and 2) when I share my knowledge through an online community, I expect somebody to respond when I'm in need.

This current study differs from Kankanhalli et al.'s (2005) previous research that focused on online knowledge sharing and how people help each other by exchanging useful information (receiving and giving). This current research is more interested in investigating how the use of social networks leads to more self-disclosure. More specifically, it is suggested that when individuals share more self-related content and interact more with others, this will encourage others to reciprocate with increased interaction and content generation. Therefore, the scale that was developed by Kankanhalli et al. (2005) was modified and used as a foundation for the scale used in this current study.

Part 8: Privacy Concerns (a self-disclosure predictor) A participant's privacy concerns were measured by four items (37 to 40) that were intended to assess the degree of an individual's concern about opportunistic behaviour related to personal information sharing on Facebook. These items were adapted from a study by Dinev and Hart (2006). Overall, the scale assessed whether information published or posted on Facebook has the potential to be mishandled, misused, or used in unforeseen ways.

Part 9: Anonymity Qian and Scott (2007) developed a scale for assessing the level of bloggers' anonymity. The study measured three types of anonymity within blogs: discursive anonymity, where a blogger uses a name, visual anonymity, where a blogger uses a photo; and general anonymity, where there is no identifying information used. Similarly, Facebook users can be personally identified by others through their profile names or their photos (in the upper left-hand corner of the screen). Therefore, this study adopted the Qian and Scott (2007) scale for three items (41 to 43) to determine the extent to which Facebook users use anonymous names, photos, and general profiles. Items 42 and 43 were reversed when analysing the data. Accordingly, the highest score referred to the highest level of anonymity in the findings. Some minor wording modifications were applied to the items to suit the selected research platform.

Part 10: Secrecy This factor measured the extent to which participants intentionally controlled or hid information on Facebook if making this information available would have negative consequences. Three items (44 to 46) were borrowed from Dinev et al. (2009), again with some minor wording modification.

Part 11: Open-ended question The last section consisted of an open-ended question that sourced general opinions about factors that positively or negatively affect people's self-disclosure on Facebook. With open-ended questions, participants are able to respond by reconstructing their personal experiences in relationship to the phenomenon in question (Seidman, 2006).

3.3.4 The Follow-up Interview Content

The semi-structured interview in this study comprised eighteen open-ended questions, grouped into nine categories, and having an average interview time estimated at 45 minutes (see Appendix C). Each category consisted of one to four questions.

In the first category, Questions 1 to 4 referred to self-disclosure on Facebook. The second category – Questions 5 to 6 – asked about the motivation for maintaining offline relationships on Facebook, and the way in which this influenced self-disclosure. Category 3 – Questions 7 to 8 – concerned the motivation for initiating relationships on Facebook, and the way in which it encouraged greater self-disclosure. The fourth category consisted of one question only that related to self-

presentation, or the way in which Facebook provides users with opportunities to present themselves, and how this presentation influences their self-disclosure. The fifth category (also consisting of one question only) related to reciprocity and its impact on self-disclosure. The sixth category – Questions 12 to 14 – dealt with privacy concerns and the way in which they reduce self-disclosure, and with the kinds of strategies people use on Facebook to keep their information safe. Category 7 – Questions 15 to 16 – dealt with anonymity and the way in which it relates to privacy concerns and the information disclosed on Facebook. The eighth category consisted of one question about perceived secrecy on Facebook, and the way in which this perception relates to self-disclosure. Finally, the questionnaire asked if participants had any other thoughts about what motivates people to self-disclose on Facebook.

3.3.5 Lottery Approach

A ‘lottery approach’ refers to a method that offers participants a significant reward in an effort to increase the survey response rate, the time spent in completing the survey, the quality of the data obtained, and to reduce non-response bias (Dillman, Smyth, & Christian, 2009; Hair, Bush, & Ortinau, 2003; Porter & Whitcomb, 2003; Wright, 2005). This technique is not free of problems, however. The most critical problem is that it might encourage multiple participations by the same participants aiming to increase their chance of winning the financial reward (Konstan, Simon Rosser, Ross, Stanton, & Edwards, 2005; Wright, 2005).

Because this research required a large sample size for the quantitative questionnaire, a lottery approach with a prize draw of an iPad2, 16 GB WiFi was offered. To avoid multiple participations from single participants, the online questionnaire was designed so that participants could only engage in one response session from a single device. A separate survey was developed to collect the identities of people who optionally entered into the free prize draw. These details were held completely separately from the research data to ensure that the latter remained anonymous. No incentive was offered for participation in the qualitative interview.

3.4 TRANSLATION

In this research, the target population spoke two different languages: Arabic, spoken by Saudi Arabians; and English, spoken by Australians. Therefore, an effective translation method, sensitive to linguistic and cultural differences, was essential in developing an instrument that was valid and reliable. In addition to the English format, therefore, the questionnaire was translated into Arabic using a ‘translation’ and ‘back-translation’ technique to ensure the accuracy of the translation (Brislin, 1970; Cha, Kim, & Erlen, 2007; Su & Parham, 2002).

The back-translation technique was conducted in three basic steps. First, a certified translator made a translation of the source language, English, to the Arabic. Second, another certified translator translated the Arabic language back into English. Finally, the translated questionnaire was reviewed and compared to the English version to ensure face validity, that is, that no change in meaning had occurred. The reviewers were two Ph.D. students and the researcher, who are all bilingual in English and Arabic. Based on the review of the translation, a few words of the Arabic version were amended for meaning, and the final Arabic version was then prepared for use in the study of the Saudi Arabian participants.

3.5 INSTRUMENT TESTING

In this study, the content of the instruments was tested and validated before being administered to the actual study sample. By ensuring instrument validity in the design stage, researchers can minimize any possible threat to validity later in the data collection, and “draw meaningful and justifiable inferences” (Creswell, 2002, p.651). This research conducted an ‘expert panel review’ and ‘pilot testing’ of both the quantitative questionnaire and the qualitative interview before collecting the study data.

3.5.1 Expert Panel Review

An expert panel review, also called ‘pre-testing’, of both the quantitative questionnaire and the qualitative interview was conducted. The purpose of an expert panel review is to evaluate instrument content validity. Content validity is defined as the degree to which questions in an instrument are appropriate and reflect the content area to which the instrument will be generalised (DeVellis, 2011; Recker, 2013; Sedera, et al., 2003; Straub, Boudreau, & Gefen, 2004). In other words, the process

is about ensuring that the proposed scale measures what it is supposed to measure (Gay & Airasian, 2000).

For quantitative surveys, the literature suggests that three experts are necessary to review the item pool (DeVellis, 2011; DeVon et al., 2007; Polit, Beck, & Owen, 2007); two should be content experts, and one must have sufficient knowledge of the quantitative survey development process (Davis, 1992). In this study, a draft of the quantitative survey was sent to a panel of eight experts. Three criteria were applied to the selection of the panel members: (a) having experience and knowledge of Web 2.0 technology and social network applications; (b) having a doctoral degree, or being engaged in a doctoral program; and (c) having experience developing or administering an online survey. Thus, all eight experts that were selected to review the quantitative survey instrument have experience in Web 2.0 technology and social network applications, with two individuals having supervised projects in this area. All reviewers possessed a doctorate or were engaged in a doctorate program. Three members had experience in developing quantitative instruments for online surveys.

Reviewers were sent an email invitation with a link to the survey. Each survey item included a comments field for adding feedback. Participants were asked to comment on the appropriateness of items such as the appearance, suitability, wording of the questions, rating relevance, clarity, and conciseness of the items, as well as their overall validity. As a result, the pre-test was modified by eliminating unrelated or less important items), adding 2 new items that suggest to increase our understanding about participant self-disclosure on Facebook (see examples in Table 8), and modifying the presentation and wording of some items.

Table 8 *Example of Eliminated Items and Added Items*

1. When I have something to say, I like to share it on Facebook (*Eliminated*)
 2. I often post photos of myself on Facebook (*Eliminated*)
 3. I use Facebook to show that I care about the people who already know me (*Eliminated*)
 4. I use Facebook to learn more about people living near me (*Eliminated*)
 5. I use Facebook to stay in touch with friends I frequently see face-to-face (*Eliminated*)
 6. I use Facebook to learn more about people living near me (*Eliminated*)
 7. Facebook helps me to expand my network (*Eliminated*)
 8. Who do you Allow to see your Facebook page (*Added*)
 9. Some people like to share a lot of information about themselves on Facebook
-

while others do not. What do you think are the reasons for the difference
(*Added*)

In the qualitative phase, the process of testing the interview protocol was less extensive in nature than the process of testing the questionnaire survey. Two of the panel of experts who had participated in the quantitative instrument testing were also asked to review the interview questions and protocol. They suggested some changes to sentence structure and clarity. The questions then underwent revision, including interview protocol updating.

3.5.2 Pilot Testing

Once the feedback from the panel of experts was incorporated into the study instrument draft, a pilot study was conducted. Pilot studies are defined as “small-scale versions of larger proposed studies, or trial runs of methods and/or measures” (Beebe, 2007, p.213), and are important for developing effective, valid, and clear instruments (Hittleman & Simon, 2002). Pilot testing alerts the researcher to any previously unidentified problems with instrument development, and enables them to gain experience in working with the actual research participants (Beebe, 2007; Gardner, Gardner, MacLellan, & Osborne, 2003).

Aday and Cornelius (2011) suggest that self-administered quantitative questionnaires should be pilot-tested to confirm the readability of the items, and to ensure that participants will easily understand and answer the questions without the need for further explanation or assistance. This suggestion was followed for this study. A group of thirty Facebook users, representative of the sample respondents, were invited to participate in the survey pilot test. Fifteen used the English version (the English speakers) and another fifteen the Arabic version (the Arabic speakers). This sample reflected the variation that would occur in the total population of Facebook users in Australia and Saudi Arabia.

The procedure and guidelines for the pilot test were designed to be similar to those of the actual survey; however, the participant selection strategy was different. In the pilot testing, participants were selected on the basis of convenience and ability to participate; in the actual survey, however, the selection was random. The pilot quantitative questionnaire was emailed to this group, who were asked to examine the survey with regard to its flow, clarity, interpretation, relevance to the topic, task difficulty, time length, and the reliability and validity of questions.

Generally, the participants did not report significant difficulties in understanding and answering the questionnaire. A little feedback that suggested the re-writing of some questions to avoid misunderstanding was received, and these questions were modified accordingly. Overall, the participants took 10 to 15 minutes to complete the survey, which is an acceptable length of time. The results of the pilot study were excluded from the final collected data, as recommended by Pett et al. (2003).

Two participants who pilot-tested the quantitative study were also asked to pilot test the qualitative interview protocol. One was from Saudi Arabia and used Arabic questions, and the second was from Australia and used English questions. A pilot test identifies limitations of the interview design, and helps researchers in refining the interview process and determining whether any further adjustments are necessary prior to the study's implementation (Kvale, 2008).

The researcher was able to make changes to the interview protocol based on suggestions from the qualitative pilot study participants. The suggestions included changes in the order of the questions asked, clarifying the wording of questions, and requesting more explanation, such as "Tell me more about your response," rather than limiting the participant to specific answers.

3.6 PROCEDURE

The quantitative questionnaire was disseminated online, and was accessed through the QUT survey URL. Online administration has many advantages, such as the ability to target participants who would be difficult to reach face to face due to great geographic distances (Bachmann, Elfrink, & Vazzana, 1996), as is the case for this study that involved data from Saudi Arabia and Australia. Online questionnaires

also save time for researchers, enabling them to collect the desired data in a short amount of time (Bethlehem & Biffignandi, 2011; Yun & Trumbo, 2000). Finally, the collection of online data is cheaper than physical administration (Bachmann, et al., 1996; Yun & Trumbo, 2000), eliminating the cost of paper, postage, and printing (Wright, 2005).

An online invitation containing a link to the online questionnaire was distributed to the research participants (see Appendix D for the Arabic and English invitations). The invitation gave a brief description of the study, and a link to the detailed participation information sheet (Appendix E). The link to this online invitation was disseminated using email, Facebook, and Twitter. Manual (paper-based instruments) administration was also considered if the online dissemination did not work as planned; however, the researcher did not have to use this method as the online approach was successful (Appendix F provides a diagram outlining the approach). The email, inviting both students and staff to participate, was sent to the Institute of Public Administration (IPA) in Saudi Arabia (both to the male and female branches) and to Queensland University of Technology (QUT) in Australia. The researcher also joined five legal and popular Facebook groups from each country and invited their members to participate. Additionally, a Twitter invitation was sent by many people from both countries, asking their followers to participate.

Qualitative interviews commenced after the quantitative questionnaire results had been analysed. The researcher conducted the interviews in two different ways. The first method was verbal, where the researcher met the interviewees, either face to face or online using Skype. All participants who selected the verbal interview gave the researcher the permission to tape-record the sessions. All these interviews were undertaken at a place and time of convenience for each participant, and each lasted about 45 minutes.

The second method was an online written text interview (chat), using Facebook Messenger. This method was offered to the majority of Saudi Arabian female participants who cited cultural restrictions that prevented them from conducting verbal interviews, where verbally communicating with strangers (in this case, the researcher) in Saudi Arabia is not acceptable. They also indicated the need for full anonymity during the interview, ensuring that no identifiable information was revealed to anyone, including the interviewer/researcher. Written text interviews

helped in controlling these concerns, due to their lack of physical and verbal communication, and the ability to remain anonymous during the organisation and conduct of the interviews. An email address was the only personal information requested from these participants, and this was needed to provide them with information that related to organising the interviews.

The researcher created two accounts on Facebook for the online written text interviews. These two accounts were ‘friends’, to enable the researcher to use one account, and the interviewee the second. On the appointed day, participants emailed the login details to the account allocated for their use. When they had successfully logged in to the created account, the researcher used Facebook Messenger to commence the interview. When it was completed, it was copied to a safe Word document, its entire contents deleted, and the account login details changed to prevent any abuse of the account. Table 9 below presents more information about the study participants and the way they were selected.

Table 9 *Qualitative Participants*

Country	Total Participants	Gender	Interview Method	
			Audio Recorded Interview	Online (Written) Interview
Saudi Arabia	12	7 Females 5 males	7 participants	5 participants (female)
Australia	8	5 Females 3 males	All participants	No participants

3.7 QUANTITATIVE PHASE ANALYSIS

In the first instance, the quantitative data were checked to ensure their accuracy and readiness for analysis in a process called the ‘data preparation process’. The following subsections describe the process that was used for preparing the current study’s quantitative data.

3.7.1 Data Entry

Data entry is the process of putting the survey’s responses into a readable format before performing survey data analysis. In all, 1112 cases were received from

both countries; 843 were complete (379 from Saudi Arabia and 446 from Australia), and 269 were incomplete (182 from Saudi Arabia and 87 from Australia). All incomplete cases were removed, and the completed cases were entered in an Excel file. The reverse coded questions were then corrected. After making the quantitative data readable in an Excel file, the data screening process was performed.

3.7.2 Case Screening

Under the screening procedure, the researcher followed six steps to clean the data of invalid cases. These ineligible cases were: cases with missing data, outliers' cases, cases with unengaged responses, cases with unrealistic answers, and cases that failed the reversed coded questions test. In all, 659 cases were valid and passed the screening steps – 308 from Saudi Arabia and 351 from Australia. (Section 4.2 discusses these steps in more detail as part of the process of preparing quantitative data for the analysis phase.)

3.7.3 Statistical Software Selection

The next step was to select a statistical software package. The first software selected for analysing the data was Statistical Product and Service Solutions (SPSS), Version 18.0. The second selected software was Analysis of Moment Structures (AMOS), Version 18.0. The rationale for these selections was that they are frequently used in behavioural sciences research, and there are ample sources that offer instructions for their use (for example, Arbuckle, 2008; Arbuckle & Wothke, 1999; Field, 2009; Pallant, 2007; Sheperis, et al., 2010). (More details of these software packages are given later in the Results chapter.)

3.7.4 Statistical Analysis

The statistical procedures used in this study involve the description of the quantitative participants. Participants were asked for demographic information (for example, age, gender, marital status, nationality, education level, and employment type), and other information related to their usage of Facebook (time spent on Facebook, period of having Facebook account, number of friends, number of groups, and profile visibility type). Frequencies and percentages were produced by SPSS for these variables. The standard deviation and maximum/minimum scores for the dependant and independent factors were reported. Principle Component Analysis (PCA) of all constructs and Confirmatory Factor Analysis (CFA) of some, were

conducted to ensure the constructs' validity. A SEM procedure tested the full structural model and the interrelationships between the constructs. (This statistical procedure is discussed in detail in Chapter 4.)

3.8 QUALITATIVE PHASE ANALYSIS

3.8.1 Thematic Analysis

There are a number of analytical techniques that have been used widely in the analysis of qualitative data, such as content analysis, discourse analysis, grounded theory and thematic analysis (Braun & Clarke, 2006). This research employed thematic analysis for analysis of the qualitative data. Thematic analysis is widely used across different types of qualitative research and is considered one of the preferred techniques for this purpose (Christofi, Nunes, & Peng, 2009). It “provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data” (Braun & Clarke, 2006, p.78).

Braun and Clarke (2006) list six main steps for conducting thematic analysis: familiarising yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Table 10 provides a brief description of each phase.

Table 10 *The Six Main Steps in Thematic Analysis*

Phase	Description of the process
1. Familiarizing yourself with your data	Transcribing data (if necessary), reading and re-reading the data; noting initial ideas
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set; collating data relevant to each code
3. Searching for themes	Collating codes into potential themes; gathering all data relevant to each potential theme
4. Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (level 2); generating a thematic map of the analysis
5. Defining and naming themes	Ongoing analysis to refine the specifics of each theme and the overall story the analysis tells; generating clear

	definitions and names for each theme
6. Producing the report	The final opportunity for analysis; selection of vivid, compelling extract examples; final analysis of selected extract; relating the analysis back to the research question and literature; producing a scholarly report of the analysis

Source: Braun & Clarke, 2006, p.87

After completion of the interviews, the audio-recorded data, the written data, and the open question, entries were transferred to the computer disks. An independent legal transcriptionist transcribed the data verbatim from the digital recordings to Microsoft Word documents. The written text interviews and open question entries were also organised as Microsoft Word documents. The researcher then reviewed all recorded interview transcripts and checked them against the audio recordings of the interviews. All identifying information that related to participants or any other individuals was removed from the transcribed interviews to ensure the confidentiality of the participants.

Because the Arabic interviews and the open question entries were transcribed in Arabic, as recommended by researchers in the literature (for example, Corbin & Strauss, 2008; Saiki-Craighill, 2001), key quotes were translated into English to enable the English reader to understand them. The translation process was performed by a professional translator and then checked by the researcher and a Ph.D. student who is bilingual in English and Arabic. After completing the transcription process and ensuring the trustworthiness of this collected data, the researcher then read it all to develop a general understanding of the material. This process included writing memos, taking notes, and formulating key ideas, as recommended by Braun & Clarke (2006) and Creswell & Clark (2010).

MAXQDA 11, the qualitative software, was used for storing the data, coding, and theme development. MAXQDA is the recommended software package for the mixed method approach (Bazeley, 2009; Creswell & Clark, 2010; Kuckartz, 2010; Leslie, 2011). Creswell and Clark (2010, p.244) reviewed the literature that recommends using MAXQDA with mixed method research, and addresses some of the important features that it offers, such as: the ability to count the number of times that a code occurred, linking the text with quantitative attributes such as demographic

attributes, and exporting and importing data into a statistical program. They also describe its simplicity for recalling memos, field notes, and coded transcript data.

After entering the qualitative data to MAXQDA 11, the data were arranged and coded with preliminary meaningful categories based on interesting features. After the coding was completed, the researcher compared similarly-coded data to identify each possible dimension of a category and the relation of a category to other categories and themes (Corbin & Strauss, 2008; Glaser, 1965). He then formed initial ideas that helped him develop preliminary theoretical concepts. (Appendix H shows two examples (English and Arabic) of using MAXQDA 11 for categorising and coding the qualitative data).

After creating the initial themes, the codes were collated into potential themes. For example, the researcher read and re-read all created codes, aiming to collect themes that related to self-disclosure, such as the type of personal information that participants disclose on Facebook, and the amount of self-disclosure. The researcher also gave more attention to the quantitative key factors, particularly to the way in which they impact the participants' self-disclosure, and how cultural differences might relate to that. Themes were then reviewed to ensure their accuracy and consistency. The researcher began to document the findings, while considering some questions that related to the quantitative results and how the qualitative findings helped in explaining those results.

3.8.2 Trustworthiness

In qualitative research, data credibility is essential for ensuring the study's quality. The credibility of a qualitative study can be achieved using one or more of the following six strategies: member checking, peer debriefing, triangulation, external auditing, and negative case analysis (Padgett, 2008). Member checking and peer debriefing were used to establish rigor in this study.

Member Checking

Member checking is one of the most important ways to ensure the credibility and trustworthiness of qualitative data (Creswell & Clark, 2007; Guba, 1985; Lincoln, 1985; Merriam, 1995; Teddlie & Tashakkori, 2009). This process was the main method used to show the credibility and trustworthiness of this research. After reviewing the written interviews, the researcher emailed the participants with a

written copy of their responses, allowing them to review and change their comments to ensure their accuracy and, therefore, their credibility and trustworthiness (for example, see Appendix G). All participants approved their transcribed interview, thus confirming the credibility of the qualitative data.

Peer Debriefing

Peer debriefing is the process whereby another individual, who is familiar with the research problem, reviews the qualitative data and its analysis process (Creswell & Miller, 2000). Throughout the course of the data collection, the researcher met regularly with Dr. Stephen Harrington, an experienced qualitative researcher, for feedback, support, and to debrief each interview. This procedure was used over the entire study, as suggested by Creswell and Miller (2000). Dr Harrington provided much written feedback and suggested many ideas that helped to enhance the research credibility.

3.8.3 Ethical Issues

Prior to commencing this research, approval was obtained from QUT's University Human Research Ethics Committee (No: 1100001179) (see Appendix A). All participation activities were categorized under 'Low Risk Applications' in accordance with the National Statement on Ethical Conduct in Research Involving Humans (National Statement). Participation in this study was entirely voluntary, and participants could withdraw from the project at any time prior to submission of the questionnaire or completion of the interview, without comment or penalty. The participants were also informed before each interview that they need only answer those questions that they felt comfortable answering. Participation in the research was confidential, and the researcher is the only person with access to the collected data from both the questionnaire and interviews. All data collected as part of this research will be stored securely as per QUT's Management of research data policy.

Chapter 4: Quantitative Phase Results

4.1 INTRODUCTION

This chapter reports the results from the analysis of the surveys for both Saudi Arabian and Australian samples. The chapter begins with the data preparation procedure, and this is followed by the descriptive analysis of the demographic profile of the sample used in the study. Before the data can be analysed, a range of PCA statistical tests of all constructs, and CFA of some, were conducted to ensure that all the constructs in the model possessed construct validity. The chapter then presents the descriptive statistic for the variable interests. This is followed by the differences in demographic characteristics for all variables. The chapter then presents a SEM analysis to test the complete structural model and the interrelationships of the constructs in the model. The chapter concludes with the results of the testing of the hypotheses.

4.2 DATA PREPARATION

The quantitative data were first checked to ensure their accuracy and readiness for the analysis in a process called the ‘data preparation process.’ Following the data preparation procedure, the researcher followed six reliable steps to clear the data of invalid cases, including ineligible cases, cases with missing data; outliers’ cases; cases with unengaged responses; cases with unrealistic answers; and cases that failed the reversed coded questions test. In all, 659 cases were valid and passed the screening steps – 308 from Saudi Arabia and 351 cases were from Australia. The following sections explain the preparation and case screening procedure, and Table 11 provides a summary of the results of the case screening and preparation procedure.

Participation eligibility: In all, 94 ineligible cases were identified and excluded from both samples. Seventy-seven cases were removed from the Saudi Arabian sample; 21 of these were not Saudi Arabian, and 56 had no Facebook accounts. Seventeen cases were removed from the Australian sample because 11 were not Australian, and 6 others had no Facebook accounts. The eligible cases were then checked against the missing values and outliers.

Missing data and outliers: The data were also checked against the missing values and outliers. Having a lot of missing data causes several problems, including biased results (Fink, 2009). The missing values found were very low in most cases, and the pattern of missing values was random. Since there was a large amount of data from both countries, the recommended method is to exclude from the analysis any variable with missing responses greater than 10% (Almalki, 2012). In all, 27 missing value cases were removed (13 from Saudi Arabia and 14 from Australia). There were no cases identified as having outlying residual values. Screenings against unengaged responses were then conducted.

Unengaged responses: 'Unengaged responses' refer to responses where participants respond with the exact or almost the exact value for every question and are clearly not engaged in the exercise. There are no variances in such responses, the data is useless, and keeping them affects the result's validity. To screen unengaged responses, the researcher used Standard Deviation to identify any unengaged responses to all items. If the overall standard deviation of the individual responses to the items is less than 0.5, there are unengaged responses. Thirty-three cases were clearly unengaged and were thus removed from the study (19 cases from Saudi Arabia and 14 cases from Australia).

Unrealistic answer response: The researchers undertook a visual inspection and found 13 cases that were considered unrealistic answers and deleted them (5 cases from Saudi Arabia and 8 cases from Australia). For example, some participants indicated that they were retired or had a Ph.D. level of education, while at the same time selecting an age of 18 years.

Reversed coded questions conflicts: There were some reversed coded questions that were purposely added to help in identifying invalid responses. Many cases were removed because participants answered the reversed coded question differently to other questions in the same group. Seventeen cases were excluded due

to these contradictory responses. There were 8 cases from Saudi Arabia and 9 from Australia.

Table 11 *Case Screening Procedure Outcomes*

The procedure	Australia	Saudi Arabia	Total
Ineligible cases	17	77	94
Missing values	14	13	27
Unengaged responses	14	19	33
Unrealistic answers	8	5	13
Reversed coded questions	9	8	17
Total	62	122	184

4.3 SAMPLE PROFILE

A number of demographic characteristics describing the participants were collected in this study. Table 12 presents a summary of these demographic characteristics.

Table 12 *Demographic Characteristics*

		Australia		Saudi Arabia	
		n	%	n	%
Gender					
	Male	123	35	228	74
	Female	228	65	80	26
Age					
	18-24	185	53	87	28
	25-29	43	12	92	30
	30-34	23	7	68	22
	35-39	19	5	36	12
	40-44	31	9	18	6
	45 and above	50	14	7	2
Marital status					
	Single	186	53	166	54

	Married/in a relationship	165	47	142	46
Education					
	High school or equivalent	164	47	69	22
	1-3 year college degree	65	19	57	19
	Bachelor degree	83	24	107	35
	Master and doctoral degree	39	11	75	24
Employment status					
	Student	182	52	122	40
	Government sector	35	10	118	38
	Private sector	89	25	38	12
	Others	45	13	30	10
Age of Facebook account					
	1 year or less	11	3	23	7
	2 year	16	5	40	14
	3 year	46	13	69	22
	4 year	89	25	61	20
	5 year	98	28	63	20
	6 year or more	91	26	52	17
Daily Facebook usage					
	10 minutes or less	24	7	62	20
	10-30 min	50	14	90	29
	31-59 min	56	16	49	16
	1-2 hours	108	31	51	17
	3-4 hours	67	19	34	11
	More than 4 hours	46	13	22	7
Friends' number					
	50 or less	27	8	80	26
	51-100	31	9	53	17
	101-150	38	11	39	13
	151-200	37	11	48	16
	201-300	59	17	34	11
	301-400	55	16	24	8
	401-600	55	16	12	4
	More than 600	49	14	18	6
Groups' number					
	0	21	6	31	10
	1-3	60	17	122	40
	4-7	130	37	83	27
	8-11	55	16	39	13

	12 or more	85	24	33	11
Profile visibility					
	All users	28	8	100	32
	Only friends	323	92	208	68

4.3.1 Gender Profile

Data from this study reveals significant gender differences between Australians and Saudi Arabians using Facebook. A higher proportion of Facebook users in Australia are female, representing 65% of all users. In Saudi Arabia, there is a higher proportion of male users, representing 74% of users (see Table 12). A recent Yellow™ study of social media usage in Australia found similar results, indicating that females are using social media more than males (Yellow™ Social Media Report, 2013). In Saudi Arabia, it is expected that males represent a higher percentage of Facebook users due to the differences in gender roles in that country, where the use of the internet by males is culturally more acceptable (Al-Kahtani, et al., 2006; Pengiran-Kaharab, Syed-Ahmadac, Ismaild, & Murphya, 2010). The recent report by the social clinic (January 2014) also produced identical results, recording that Saudi males represent 74% of Facebook users – a significantly higher representation than the 26% female representation.

4.3.2 Age Profile

Respondents in this study are categorized into 6 age groups. The analysis illustrates that more than half of the Australia participants (53%) are in the 18-24 age group, whereas the age group 25-29 years represents the highest age category in the Saudi Arabian sample (30%) (see Table 12). The Saudi Arabian sample indicates that people aged 45 and above are less likely to use Facebook, as this age category represents only 2% of the total sample. The Australian sample, by comparison, includes 14% of respondents in this 45+ age group.

4.3.3 Marital Status Profile

Respondents have almost identical marital status in the Australian and Saudi Arabian samples. Approximately half of the sample is single – 53% in Australia, and 54% in Saudi Arabia (Table 12). This percentage shows that both single and married individuals have almost equal representation on Facebook.

4.3.4 Education Profile

Question about education level were pre-defined in four different categories. Table 12 shows that the largest percentage of respondents in Australia has a high school or equivalent level of education (47%), whereas in Saudi Arabia the largest representation has a bachelor degree (35%). Both samples have the same percentage of participants who have a 1-3 year college degree (19%). In the masters and higher degree categories, the Saudi Arabian sample has a greater representation (24%), than the Australian sample (11%).

4.3.5 Employment Status Profile

Four categories represent the participants' employment status: Student, Government, Private and Other. The 'other' category consists of six different options: self-employed, out of work and looking for work, out of work but not currently looking for work, homemaker, retired, and unable to work. In both samples, students are the largest number of respondents – 52% in Australia, and 40% in Saudi Arabia. The private sector has the second largest representation in the Australian sample (25% of all participants). This compares to its 12% representation in the Saudi Arabian sample (Table 12). The government sector has the second largest representation in the Saudi Arabian sample (38% of all participants). This is because Saudi Arabians on the whole prefer government jobs, and are less likely to work in the private sector (AlGhamdi, et al. 2011; Aljebrin, 2012; Gause, 1997; Lippman, 2012; Sfakianakis, 2011).

4.3.6 Age of Facebook Account

Six different periods have been used to describe the length of time people had a Facebook account 'one year or less' to the maximum period 'six years or more' (see Table 13). Having Facebook for two years or less represents higher percentage in Saudi Arabia with 21%, compared to only 8% in Australia. However, the percentage of having Facebook for five years or more is higher in Australia with 54%, compared to 37 in Saudi Arabia. For more details about the number of participants and the percentage for each category, see Table 12.

Table 13 *Age of Facebook Accounts*

	Australia		Saudi Arabia	
	n	%	n	%
1 year or less	11	8	23	21

2 years	16		40	
3 years	46	13	69	22
4 years	89	25	61	20
5 years	98		63	
6 years or more	91	54	52	37

4.3.7 Daily Facebook Usage

Overall, the data shows that Australians spend more time per day using Facebook than Saudi Arabians (Table 12). Table 14 shows that 63% of the Australian sample said that they use Facebook for one hour and more per day, compared to only 35% of the Saudi Arabian sample. The percentage who use Facebook for 10 minutes or less is also higher in Saudi Arabia at 20%, compared to only 7% in Australia. Both samples have an equal percentage of respondents (16%) who spend 31-59 minutes per day on Facebook. (For more details about the number of participants and the percentages for each category, see Table 12.)

Table 14 *Daily Facebook Usage*

	Australia		Saudi Arabia	
	n	%	n	%
10 minutes or less	24	7	62	20
10-30 min	50	14	90	29
31-59 min	56	16	49	16
1-2 hours	108		51	
3-4 hours	67	63%	34	35%
More than 4 hours	46		22	

4.3.8 Number of Friends' Profile

The analysis indicates that the Australian sample has a larger percentage of friends than the Saudi Arabian sample (see Table 12). Table 15 shows that 63% of the Australian sample has more than 200 friends, compared to only 29% of the Saudi Arabian sample. It also shows that 26% of the Saudi Arabian sample falls in the '50 or less' category, compared to only 8% of the Australian sample. (For more details about the number of participants and the percentage for each category, see Table 15.)

Table 15 *Number of Friends' Profile*

	Australia		Saudi Arabia	
	n	%	n	%
Friends' number				

50 or less	27	7	80	25
51-100	31	8	53	17
101-150	38	11	39	13
151-200	37	11	48	16
201-300	59		34	
301-400	55	63	24	29
401-600	55		12	
More than 600	49		18	

4.3.9 Number of Groups

The groups' numbers have been divided into five categories, starting with 'having no groups' and ending with 'having 12 or more groups' (see Table 16). Overall, the Australian sample joined more Facebook groups compared to the Saudi Arabian sample. Table 18 below explains that more than 77% of the Australian sample are members of 4 groups or more, compared to 50% of the Saudi Arabian sample. It also found that the percentage who are members of one to three groups is higher in Saudi Arabia (40%) than in Australia (only 17%). (For more details of the number of participants and the percentage for each category, see Table 12.)

Table 16 *Groups' number*

	Australia		Saudi Arabia	
	n	%	n	%
None	21	6	31	10
1-3	60	17	122	40
4-7	130		83	
8-11	55	77	39	50
12 or more	85		33	

4.3.10 Visibility of Profile

The two categories that have been selected to describe the participants' profile visibility are: 1) open to all Facebook users, and 2) open to only my friends. In both samples, the majority of respondents modified their profile to be accessed by 'only my friends' – 92% of the Australian sample, and 68% of the Saudi Arabian sample. The data illustrates that the Saudi Arabians sample has a higher percentage of open and public profiles (at 32%) than the Australian sample (at only 8%).

4.4 PRINCIPAL COMPONENT ANALYSIS AND RELIABILITY ANALYSIS

Principle Component Analysis (PCA) is a commonly applied statistical technique in the Social Sciences (Costello & Osborne, 2005). It is frequently used as the first step in checking the validity of the survey, and the internal consistency among variables in a sample (Churchill & Iacobucci, 2009; Straub, et al., 2004). In this research, principal component analysis was employed with the Varimax rotation method. Factors were extracted based on the criteria of inter-correlation lower than 0.80, the significance of KMO and Bartlett's Tests, communalities of 0.30 or above, eigenvalues of 1.00 or above (Costello & Osborne, 2005; Ferretich, 1991; Pett, et al., 2003), scree plots, and factor loadings were used to determine the appropriateness of the scales.

Reliability analysis was also conducted on the final items of this research. Straub et al. (2004) explain that reliability is concerned with finding measures that reflect the 'true scores' for survey items that examine the phenomenon of interest. The reliability analysis was performed by estimating the Cronbach's alpha, item-total correlation, and Cronbach's alpha if items were deleted. Cronbach's alpha can potentially range from 0 (zero reliability) to 1 (perfect reliability). The conventional minimum acceptable level of alpha to indicate adequate reliability is 0.7, while alpha > 0.8 indicates good reliability (Cronbach & Shavelson, 2004). These analyses were conducted using the software SPSS Version 18.0.

4.4.1 Self-disclosure

Initially, PCA was performed considering self-disclosure as two separate factors – breadth and depth of self-disclosure. Breadth of self-disclosure successfully passed the internal consistency test in both Australian and Saudi Arabian samples, with the Australian sample scoring 0.75, and the Saudi Arabian sample scoring 0.71. However, depth of self-disclosure was not passed in either sample, with each scoring 0.67.

Both breadth and depth scales were then combined as one scale – called 'self-disclosure' – in order to provide a strong reliability result, while retaining content validity. The combination of these two factors resulted in a strong reliability scale that achieved 0.81 Cronbach's alpha with the Australian sample, and 0.79 with the Saudi Arabian sample. The following sections discuss the process for performing PCA for the dependent factor self-disclosure in detail.

Breadth of Self-disclosure

PCA was conducted for the breadth of self-disclosure factor. Four items of breadth self-disclosure were analysed, and the results are given in Table 17.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.27. The component explained 56.87% of variance. Correlation matrix results showed that the items were weak or moderately associated, with the correlation ranging from 0.340 to 0.537. The KMO and Barlett's test result were statistically significant: KMO=0.75, $\chi^2=331.7$, $df=6$, $p<0.001$. Communalities ranged from 0.432 to 0.598.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.1. The component explained 53.4% of variance. Correlation matrix results showed that the items were weak or moderately associated. The correlation ranged from 0.314 to 0.429. The KMO and Barlett's test result were statistically significant: KMO=0.74, $\chi^2=208.8$, $df=6$, $p<0.001$. Communalities ranged from 0.432 to 0.598.

Based on these results, all breadth items were chosen because they presented high communalities and factor loadings across both Australian and Saudi Arabian samples.

Table 17 *Breadth: Self-disclosure Factor loading Results*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	2.27		2.14	
% of variance	56.87		53.38	
Breadth 1	0.60	0.77	0.55	0.74
Breadth 2	0.65	0.81	0.56	0.75
Breadth 3	0.60	0.77	0.58	0.76
Breadth 4	0.43	0.66	0.46	0.68

Reliability analysis was conducted on these 4 items from the breadth self-disclosure scale using the 'Reliability Analysis' procedure in SPSS. Cronbach's alpha was 0.75 in the Australian sample, and 0.71 in the Saudi Arabian sample, which indicated strong reliability (see Table 18). These results indicate that all 4

items for breadth self-disclosure are reliable scale items in both the Australian and Saudi Arabian samples.

Table 18 *Breadth: Self-disclosure Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Breadth 1	0.56	0.68	0.50	0.64
Breadth 2	0.6	0.65	0.51	0.64
Breadth 3	0.56	0.67	0.53	0.63
Breadth 4	0.44	0.74	0.44	0.68
Cronbach's alpha		0.75		0.71

Depth of Self-disclosure

Seven items of depth self-disclosure were analysed, and the results are shown in Table 19.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.48. The component explained 35.45% of variance. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.109 to 0.447. The KMO and Barlett's test result were statistically significant: KMO=0.758, $\chi^2=354.17$, $df=21$, $p<0.001$. Communalities ranged from 0.414 to 0.639.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.3. The component explained 33.04% of variance. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from - 0.005 to 0.464. The KMO and Barlett's test result were statistically significant: KMO=0.761, $\chi^2=250.04$, $df=6$, $p<0.001$. Communalities ranged from 0.323 to 0.644.

Based on these results, some items loaded very low in each sample; therefore, the items with the highest communalities and factor loadings across the Australian and Saudi Arabian samples were chosen. These items included Depth1, Depth 2, Depth 3, Depth 4, and Depth 5. The mean of these items was computed as a measure of depth of self-disclosure for further analysis.

Table 19 *Depth: Self-disclosure Factor loading Results (7 Items)*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	2.48		2.31	
% of variance	35.45		33.04	
Depth 1	0.64	0.53	0.32	0.56
Depth 2	0.58	0.72	0.56	0.74
Depth 3	0.54	0.69	0.40	0.51
Depth 4	0.55	0.71	0.45	0.67
Depth 5	0.41	0.52	0.56	0.74
Depth 6	0.46	0.42	0.53	0.42
Depth 7	0.44	0.51	0.64	0.11

In the next step, PCA was conducted on the Australian and Saudi Arabian samples on the 5 items from the depth self-disclosure scale: Depth 1, Depth 2, Depth 3, Depth 4, and Depth 5. Results are shown in Table 20.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.2. The component explained 44% of variance. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.206 to 0.447. The KMO and Barlett's test result were statistically significant: KMO=0.73, $\chi^2=259.4$, $df=10$, $p<0.001$. Communalities ranged from 0.304 to 0.529, which were all acceptable.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.2. The component explained 44% of variance, a similar result to that for the Australian sample. Correlation matrix results showed

that the items were weak or moderately associated, ranging from 0.15 to 0.433. The KMO and Barlett's test results were statistically significant: KMO=0.83, $\chi^2=435.97$, $df=15$, $p<0.001$. Communalities ranged from 0.305 to 0.565, which were all in the acceptable range.

These results support the fact that the selected 5 items from the self-disclosure scale are acceptable items to be used across both the Australian and Saudi Arabian samples.

Table 20 *Depth: Self-disclosure Factor loading Results (5 Items)*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	2.2		2.2	
% of variance	44		44	
Depth 1	0.30	0.55	0.32	0.57
Depth 2	0.53	0.73	0.56	0.75
Depth 3	0.53	0.72	0.31	0.55
Depth 4	0.53	0.73	0.45	0.67
Depth 5	0.31	0.55	0.56	0.75

Reliability analysis was conducted on the 5-items from the Depth scale. A similar Cronbach's alpha was achieved in both samples (0.67), which indicated poor reliability (see Table 21). These results indicate that it is not appropriate to co-analyse the 5 items as a scale.

Table 21 *Depth: Self-disclosure Reliability Analysis Results (5 Items)*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Depth 1	0.35	0.66	0.34	0.66
Depth 2	0.48	0.59	0.52	0.58
Depth 3	0.48	0.60	0.33	0.67
Depth 4	0.48	0.59	0.43	0.62
Depth 5	0.36	0.65	0.52	0.58
Cronbach's alpha		0.67		0.67

Self-disclosure as One Scale (Breadth and Depth)

Both breadth and depth scales were combined as one scale – entitled ‘self-disclosure’ – in order to produce a strong reliable self-disclosure result. The analysis was conducted on the 9 items from the self-disclosure scale: Breadth 1, Breadth 2, Breadth 3, Breadth 4, Depth 1, Depth 2, Depth 3, Depth 4, and Depth 5. Results are shown in Table 22.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 3.78. The component explained 42.01% of variance. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.18 to 0.54. The KMO and Barlett’s test result were statistically significant: KMO=0.87, $\chi^2=844.80$, $df=36$, $p<0.001$. Communalities ranged from 0.30 to 0.64.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 3.68. The component explained 40.88% of variance. Correlation matrix results showed that the items were weak or moderately associated, ranging from 0.18 to 0.46. The KMO and Barlett’s test results were statistically significant: KMO=0.88, $\chi^2=667.69$, $df=36$, $p<0.001$. Communalities ranged from 0.21 to 0.52.

Based on these results, the items with the highest communalities and factor loadings across the Australian sample and Saudi Arabian sample were chosen. These items included Breadth 1, Breadth 2, Breadth 3, Breadth 4, Depth 2, and Depth 4. The mean of these items were computed as a measure of self-disclosure for further analysis.

Table 22 *Self-disclosure Factor loading Results (9 Breadth and Depth Items)*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	3.78		3.68	
% of variance	42.01		40.88	
Breadth 1	0.58	0.75	0.52	0.72

Breadth 2	0.57	0.75	0.48	0.69
Breadth 3	0.56	0.71	0.46	0.68
Breadth 4	0.30	0.55	0.34	0.58
Depth 1	0.52	0.46	0.26	0.51
Depth 2	0.53	0.68	0.47	0.68
Depth 3	0.51	0.62	0.20	0.45
Depth 4	0.57	0.70	0.45	0.67
Depth 5	0.64	0.54	0.49	0.70

In the next step, PCA was conducted on the Australian and Saudi Arabian samples on the 6 items from the self-disclosure scale: Breadth 1, Breadth 2, Breadth 3, Breadth 4, Depth 2, and Depth 4. Results are shown in Table 23.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 3.06. The component explained 51.04% of variance, which was an improvement on the 9-item model. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.23 to 0.54. The KMO and Barlett's test result were statistically significant: KMO=0.85, $\chi^2=576.60$, $df=15$, $p<0.001$. Communalities ranged from 0.33 to 0.61, which were all acceptable.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.91. The component explained 48.43% of variance, which was more than that observed in the 9-item model. Correlation matrix results showed that the items were weak or moderately associated, ranging from 0.22 to 0.48. The KMO and Barlett's test results were statistically significant: KMO=0.83, $\chi^2=435.97$, $df=15$, $p<0.001$. Communalities ranged from 0.31 to 0.56, which were all in the acceptable range.

These results endorse the items from the self-disclosure scale – Breadth 1, Breadth 2, Breadth 3, Breadth 4, Depth 2, and Depth 4 – as acceptable items for use across both the Australian and Saudi Arabian samples.

Table 23 *Self-disclosure Factor loading Results (6 Breadth and Depth Items)*

Australia

Saudi Arabia

	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	3.78		3.68	
% of variance	42.01		40.88	
Breadth 1	0.61	0.78	0.56	0.75
Breadth 2	0.61	0.78	0.54	0.73
Breadth 3	0.52	0.72	0.51	0.71
Breadth 4	0.33	0.58	0.31	0.56
Depth 2	0.48	0.69	0.47	0.68
Depth 4	0.51	0.71	0.51	0.72

Reliability analysis was conducted on these 6 items from the self-disclosure scale. Cronbach's alpha was 0.81 in the Australian sample and 0.79 in the Saudi Arabian sample, which indicated strong reliability (see Table 24). These results support the items, Breadth 1, Breadth 2, Breadth 3, Breadth 4, Depth 2, and Depth 4 as reliable items for the self-disclosure scale in both the Australian and Saudi Arabian samples. Furthermore, the combination of these two types of self-disclosure as one scale ensures greater reliability.

Table 24 *Self-disclosure Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Breadth 1	0.64	0.76	0.60	0.74
Breadth 2	0.64	0.76	0.58	0.74
Breadth 3	0.58	0.77	0.56	0.75
Breadth 4	0.43	0.80	0.40	0.78
Depth 2	0.53	0.78	0.52	0.76
Depth 4	0.56	0.78	0.55	0.75
Cronbach's alpha		0.81		0.79

4.4.2 Maintaining Offline Relationships

PCA was conducted on the Australian and Saudi Arabian samples on the three items on the maintaining offline relationship scale. These results are shown in Table 25.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.95. The component explained 65.07% of the variance. Correlation matrix results showed that the items were moderately associated, where the correlation ranged from 0.42 to 0.56. The KMO and Barlett's test result were statistically significant: KMO=0.67, $\chi^2=226.99$, $df=3$, $p<0.001$. Communalities ranged from 0.57 to 0.70, which were all acceptable.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 2.08. The component explained 69.21% of the variance. Correlation matrix results showed that the items were moderately associated, ranging from 0.50 to 0.57. The KMO and Barlett's test results were statistically significant: KMO=0.70, $\chi^2=250.53$, $df=3$, $p<0.001$. Communalities ranged from 0.67 to 0.72, which were all in the acceptable range.

Based on these results, all maintaining offline relationship items were chosen because they presented high communalities and factor loadings across both Australian and Saudi Arabian samples.

Table 25 *Offline Relationship Factor loading Results*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	1.95		2.08	
% of variance	65.07		69.21	
Offline Relation 1	0.57	0.75	0.67	0.82
Offline Relation 2	0.70	0.84	0.68	0.83
Offline Relation 3	0.68	0.82	0.72	0.85

Reliability analysis was also conducted on the maintaining offline relationship three-item scale. Cronbach's alpha was 0.73 in the Australian sample and 0.78 in the Saudi Arabian sample (see Table 26). These results support the three items as reliable items for the offline relationship scale in both the Australian and Saudi Arabian samples.

Table 26 *Offline Relationship Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Offline Relation 1	0.49	0.71	0.59	0.72
Offline Relation 2	0.60	0.59	0.61	0.71
Offline Relation 3	0.58	0.61	0.64	0.67
Cronbach's alpha	0.73		0.78	

4.4.3 Initiating New Relationships

PCA was conducted on the Australian and Saudi Arabian samples on the three items from the initiating relationship scale. Results are shown in Table 27.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.89. The component explained 62.99% of variance. Correlation matrix results showed that the items were weakly to moderately associated, where the correlation ranged from 0.35 to 0.53. The KMO and Barlett's test result were statistically significant: KMO=0.65, $\chi^2=199.74$, $df=3$, $p<0.001$. Communalities ranged from 0.55 to 0.71, which were all acceptable.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.96. The component explained 65.30% of variance. Correlation matrix results showed that the items were moderately associated, ranging from 0.40 to 0.57. The KMO and Barlett's test results were statistically significant: KMO=0.66, $\chi^2=204.25$, $df=3$, $p<0.001$. Communalities ranged from 0.57 to 0.73, which were all also in the acceptable range.

These results support the three items from the initiating relationship scale as acceptable items to be used across both the Australian and Saudi Arabian samples.

Table 27 *Initiating Relationship Factor loading Results*

Australia		Saudi Arabia	
Communalities	Factor loadings	Communalities	Factor loadings

Eigenvalues	1.89		1.96	
% of variance	62.99		65.30	
IR1	0.63	0.79	0.66	0.81
IR2	0.71	0.84	0.73	0.85
IR3	0.55	0.74	0.57	0.76

Reliability analysis was also conducted on these three items. Cronbach's alpha was 0.71 in the Australian sample and 0.73 in the Saudi Arabian sample (see Table 28). These results support the three items as reliable items for the initiating relationship scale in both the Australian and Saudi Arabian samples.

Table 28 *Initiating Relationship Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IR1	0.53	0.61	0.57	0.63
IR2	0.59	0.52	0.62	0.56
IR3	0.46	0.69	0.49	0.72
Cronbach's alpha	0.71		0.73	

4.4.4 Self-presentation

PCA was conducted using the three items from the self-presentation scale. Results are shown in Table 29.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.60. The component explained 53.21% of variance. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.18 to 0.43. The KMO and Barlett's test result were statistically significant: KMO=0.57, $\chi^2=98.88$, $df=3$, $p<0.001$. Communalities ranged from 0.35 to 0.66.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.46. The component explained 48.75% of variance. Correlation matrix results showed that the items were weakly associated,

ranging from 0.22 to 0.25. The KMO and Barlett's test results were statistically significant: KMO=0.60, $\chi^2=44.65$, $df=3$, $p<0.001$. Communalities ranged from 0.47 to 0.50.

Based on these results, all self-presentation items were chosen because they presented high communalities and factor loadings across both Australian and Saudi Arabian samples.

Table 29 *Self-presentation Factor loading Results*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	1.60		1.46	
% of variance	53.21		48.75	
SP1	0.66	0.81	0.50	0.71
SP2	0.59	0.77	0.49	0.70
SP3	0.34	0.59	0.47	0.68

Reliability analysis was also conducted on these three items from the self-presentation scale. Cronbach's alpha was 0.55 in the Australian sample and 0.47 in the Saudi Arabian sample, which indicated poor reliability (see Table 30). The results indicated that it is not appropriate to analyse the 3 items together as a scale. SP2 appeared to be the least appropriate item for this purpose and, therefore, was excluded from the analysis below. SP1 and SP3 were the better items to be used as individual items for further analysis.

Pearson's correlation analysis was then conducted to decide which one of these two items is more correlated with self-disclosure. In the Australian sample, SP1 was more significantly and positively correlated to self-disclosure (0.63 ***), compared to SP3 (0.28***). In the Saudi Arabian sample, Pearson's correlation analysis showed that SP1 correlated higher (0.35***) with self-disclosure, compared to SP3

(0.33 ***). The content validity also remains with SP1, where sharing achievements and successes on Facebook is one main way of presenting the self to others in a favourable and attractive manner (Lee, et al., 1999).

As the result of the above findings, SP1 was chosen to measure self-presentation in both samples.

Table 30 *Self-presentation Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SP1	0.39	0.41	0.30	0.37
SP2	0.26	0.60	0.28	0.39
SP3	0.46	0.30	0.30	0.36
Cronbach's alpha	0.55		0.47	

4.4.5 Reciprocity

PCA was conducted for the three items from the reciprocity scale. Results are shown in Table 31.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.71. The component explained 56.97% of variance. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.24 to 0.49. The KMO and Barlett's test result were statistically significant: KMO=0.60, $\chi^2=134.96$, $df=3$, $p<0.001$. Communalities ranged from 0.41 to 0.68.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.9. The component explained 61.9% of variance. Correlation matrix results showed that the items were weakly associated, ranging from 0.41 to 0.47. The KMO and Barlett's test results were statistically significant: KMO=0.67, $\chi^2=145.4$ df=3, $p<0.001$. Communalities ranged from 0.57 to 0.64.

Based on these results, all reciprocity items were chosen because they presented high communalities and factor loadings across both Australian and Saudi Arabian samples.

Table 31 *Reciprocity Factor loading Results*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	1.71		1.86	
% of variance	56.97		61.90	
Rec1	0.41	0.64	0.58	0.76
Rec2	0.68	0.83	0.64	0.80
Rec3	0.61	0.78	0.64	0.80

Reliability analysis was conducted on the 3 items for the reciprocity scale. Cronbach's alpha was 0.62 in the Australian sample, less than the acceptable level. The Cronbach's alpha was 0.7 in the Saudi Arabian sample, which indicated acceptable reliability (see Table 32). The reciprocity scale was appropriate and had good psychometric properties in the Saudi Arabian sample; however, the items did not fit together and the scale was not an appropriate in the Australian sample. Therefore, the scale of the 3 items was used for analysing the Saudi Arabian sample only. In the Australian sample, Reciprocity1 was excluded from any further analyses because it loaded lower than Reciprocity 2 and 3.

The next step was to conduct Pearson's correlation analysis to determine which of the remaining two items correlated more highly with self-disclosure. Reciprocity 2 had higher correlation with self-disclosure (0.49***), compared to Reciprocity 3 (0.42 ***). Reciprocity 2 also provides more content validity and a more general measure of the reciprocity concept, compared to Reciprocity 3. Based on the above results, Reciprocity 2 was chosen to be included in further analysis of Australian sample.

In the follow-up interviews, the findings indicated that the reciprocity norm is a fact of Saudi Arabian culture, and part of their Islamic doctrine. In Islam, a person cannot be a real Muslim unless he or she reciprocates to their brothers in Islam. This Islamic belief is also clearly reflected in Saudi Arabian behaviour on Facebook, as reported in the follow-up interviews (see section 6.3.4). While the qualitative analysis also indicated that there is an element of reciprocity in the Australian sample, the Australian participants' commitment to reciprocity on Facebook was less than that of the Saudi Arabian participants (see section 6.3.4.).

Thus, cultural differences in the perception of, and belief in reciprocity of the Australians and Saudi Arabians in the samples could be the reason behind the two different PCA results. More specifically, the strong perception of, and belief in reciprocity in Saudi Arabian culture might be the reason behind achieving good reliability in this scale with the Saudi Arabian sample, compared to its weak reliability in the Australian participant sample.

Table 32 *Reciprocity Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Rec1	0.33	0.65	0.47	0.64
Rec2	0.51	0.39	0.52	0.59
Rec3	0.45	0.49	0.53	0.59
Cronbach's alpha	0.62		0.7	

4.4.6 Privacy Concerns

Items from the privacy concerns scale were analysed, and results for both Australian and Saudi Arabian samples are shown in Table 33.

In the Australian sample, eigenvalues indicated that one component was extracted, where the eigenvalue was 2.42. This component explained the 60.53% variance. Results showed that four privacy scale items were loaded onto one component. Factor loadings showed that all items were adequately loaded onto one component. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.34 to 0.58. The KMO and Barlett's test result were statistically significant: KMO=0.75, $\chi^2=394.56$, $df=6$, $p<0.001$. Communalities ranged from 0.51 to 0.72.

In the Saudi Arabian sample, eigenvalues indicated that one component was extracted, where the eigenvalue was 2.20. This component explained the 55.06% variance. Results showed that four items of the privacy scale were loaded onto one component. Factor loadings showed that all items were adequately loaded onto one component. Correlation matrix results showed that the items were weak or moderately associated, where the correlation ranged from 0.33 to 0.47. The KMO and Barlett's test result were statistically significant: KMO=0.75, $\chi^2=234.35$, $df=6$, $p<0.001$. Communalities ranged from 0.46 to 0.59.

Based on these results, all four items from the privacy concern scale were deemed acceptable items to be used across both the Australian and Saudi Arabian samples.

Table 33 *Privacy Factor loading Results*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	2.42		2.20	
% of variance	60.53		55.06	
PC1	0.64	0.80	0.59	0.77
PC2	0.51	0.71	0.57	0.75
PC3	0.55	0.74	0.46	0.67
PC4	0.72	0.85	0.59	0.77

Reliability analysis was conducted on the four items from the privacy concerns scale. Cronbach's alpha was 0.78 in the Australian sample and 0.73 in the Saudi Arabian sample, which indicated acceptable reliability (see Table 34). These results indicated that the four items were reliable items for the privacy scale in both the Australian and Saudi Arabian samples.

Table 34 *Privacy Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PC1	0.62	0.71	0.54	0.65
PC2	0.51	0.77	0.53	0.66
PC3	0.54	0.75	0.45	0.71
PC4	0.68	0.68	0.55	0.65
Cronbach's alpha	0.78		0.73	

4.4.7 Anonymity

PCA was conducted using the three items from the anonymity scale. Results are shown in Table 35.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.50. The component explained 50.05% of variance. Correlation matrix results showed that the items were weakly associated, where the correlation ranged from 0.24 to 0.26. The KMO and Barlett's test result were statistically significant: KMO=0.61, $\chi^2=59.64$, $df=3$, $p<0.001$. Communalities ranged from 0.49 to 0.52.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.94. The component explained 64.74% of the variance. Correlation matrix results showed that the items were moderately associated, ranging from 0.44 to 0.53. The KMO and Barlett's test results were statistically significant: KMO=0.68, $\chi^2=44.65$, $df=3$, $p<0.001$. Communalities ranged from 0.59 to 0.68.

These results support the three items from the anonymity scale as acceptable items to be used across both the Australian and Saudi Arabian samples.

Table 35 *Anonymity Factor loading results*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	1.50		1.94	
% of variance	50.05		64.73	
Anonymity 1	0.49	0.70	0.67	0.82
Anonymity 2	0.49	0.70	0.68	0.82
Anonymity 3	0.52	0.72	0.59	0.77

Reliability analysis was conducted on these three items from the anonymity scale (see Table 36). The anonymity scale was appropriate and had good psychometric properties in the Saudi Arabian sample where the Cronbach's alpha was 0.71. However, the items did not fit well and were not an appropriate scale for the Australian sample where Cronbach's alpha was 0.49, indicating poor reliability. Therefore, the scale was used for analysing the Saudi Arabian sample only, and only one item was used with the Australian sample. Anonymity1 was the item chosen to be included in further analysis. This was because it loaded to an acceptable level and provided a general measure of anonymity and content validity.

The follow-up interviews revealed another cultural difference between Saudi Arabia and Australia with regard to participants' anonymity preferences on Facebook. This cultural difference might explain the reason for the different PCA results for the samples. Due to certain cultural restrictions, many Saudi Arabians and, more specifically, many Saudi females reported that they completely hide their real identity on Facebook by using false details – including false names, photos, and any other content that might reveal their real identity. They also try to remain anonymous to all Facebook users, including their family members and friends (see section 6.4.1 for more details). In this research, this type of anonymity is called 'full anonymity'.

The interviews revealed that anonymity on Facebook in Australia, on the other hand, is more likely to be 'partial'. With partial anonymity status, participants hide

their identifiable information from public search, specifically from an unwanted audience, while they use their hidden identity to connect selectively with friends whom they trust and know well, and share considerable identifiable content with them (see section 6.4.1 for more details).

Thus, the differences in motivation for, and implementation of anonymity on Facebook in the two samples could lead to two different PCA results. More specifically, Saudi Arabians are more likely to understand the concept of anonymity on Facebook as hiding their name, photos and shared content, as this scale shows (Item 1, Item 2, and Item 3). The Australian participants with their partial notion of anonymity, on the other hand, are not fully reflected in this scale and its associated items.

Table 36 *Anonymity Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Anonymity 1	0.31	0.37	0.56	0.60
Anonymity 2	0.31	0.41	0.56	0.58
Anonymity 3	0.33	0.36	0.50	0.69
Cronbach's alpha		0.49		0.71

4.4.8 Secrecy

The PCA was conducted using the three items from the secrecy scale. Results are shown in Table 37.

In the Australian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.34. The component explained 44.56% of the variance. The correlation matrix results showed that the item Secrecy 1 was very weakly associated with Secrecy 2 ($r=0.11$) and Secrecy 3 ($r=0.06$). Secrecy 2 and Secrecy 3 had a moderately weak association ($r=0.29$). The KMO and Barlett's test result were statistically significant: $KMO=0.52$, $\chi^2=35.93$, $df=3$, $p<0.001$. Communalities were 0.15 for Secrecy 1, which was not acceptable. However,

communalities were 0.62 for Secrecy 2 and 0.57 for Secrecy 3, which were acceptable.

In the Saudi Arabian sample, eigenvalues indicated that for the extracted component one, the eigenvalue was 1.45. The component explained 48.47% of the variance. Correlation matrix results showed that the items were weakly associated, ranging from 0.16 to 0.27. The KMO and Barlett's test results were statistically significant: KMO=0.58, $\chi^2=45.20$, $df=3$, $p<0.001$. Communalities ranged from 0.43 to 0.57 and were observed to be lowest in Secrecy 1.

Table 37 *Secrecy Factor loading results*

	Australia		Saudi Arabia	
	Communalities	Factor loadings	Communalities	Factor loadings
Eigenvalues	1.34		1.45	
% of variance	44.56		48.47	
Secrecy 1	0.15	0.39	0.43	0.65
Secrecy 2	0.62	0.78	0.46	0.68
Secrecy 3	0.57	0.76	0.57	0.75

Reliability analysis was conducted on these three items from the secrecy scale. Cronbach's alpha was 0.36 in the Australian sample and 0.46 in the Saudi Arabian sample, which indicated poor reliability (see Table 38). Results indicated that the reliability could be improved slightly by removing Secrecy 1 from the scale. However, after this improvement, the statistics indicated that the reliability remained poor.

The results also indicated that the 3 items were not appropriate to be analysed together as a scale. Secrecy 1 appeared to be the least appropriate item and was, therefore, excluded from the analysis below. Secrecy 2 and Secrecy 3 were the more appropriate items to be used as individual items for further analysis. Secrecy 3 was chosen to be used for this purpose because it could be generalised to the online secrecy concept, and also loaded higher in both samples.

Table 38 *Secrecy Reliability Analysis Results*

	Australia		Saudi Arabia	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Secrecy 1	0.10	0.45	0.26	0.42
Secrecy 2	0.28	0.11	0.27	0.40
Secrecy 3	0.24	0.20	0.34	0.28
Cronbach's alpha		0.36		0.46

4.5 CONFIRMATORY FACTOR ANALYSIS FOR SELF-DISCLOSURE

Confirmatory factor analysis (CFA) is usually used for identifying the psychometric evaluation of measures, construct validation, testing method effects and testing measurement invariance (Harrington, 2008). When conducting CFA, the number of factors and the variables loaded onto each factor are determined before using the model structure for analysis. In this study, CFA was only performed for the dependant factor – the self-disclosure construct –because it involved several items resulting from the breadth and depth sub-factors, and needed to be tested and evaluated psychometrically to ensure that it was a good fit.

The reliability and validity of the self-disclosure construct were assessed via CFA using the software Amos version 17.0. The maximum likelihood method was used for model fitting and estimations. Saturated and independence models were fitted. Standardized estimates, squared multiple correlations, and factor score weights were used to examine each item. Error variances were included for each observed item. Model fits were determined by high values of NFI and CFI, and low values of RMSEA (McDonald & Marsh, 1990; Steiger & Lind, 1980).

In the self-disclosure scale, the 6 items – Breadth 1, Breadth 2, Breadth 3, Breadth 4, Depth 2, and Depth 4 – were analysed in the confirmatory analysis (see Figure 3). In the Australian sample, the model was significant: $\chi^2=18.38$, $df=9$, $p=0.031$. Model fit statistics suggested an adequate model: CFI=0.98, NFI=0.97, RMSEA=0.06. In the Saudi Arabian sample, the model was significant: $\chi^2=18.62$, $df=9$, $p=0.029$. Model fit statistics suggested an adequate model: CFI=0.98, NFI=0.96, RMSEA=0.06. All items loaded onto the scale significantly in both the Australian and Saudi Arabian analyses: $p<0.001$.

These results support the appropriateness of items Breadth 1, Breadth 2, Breadth 3, Breadth 4, Depth 2, and Depth 4 for the self-disclosure scale in both the Australian and Saudi Arabian samples.

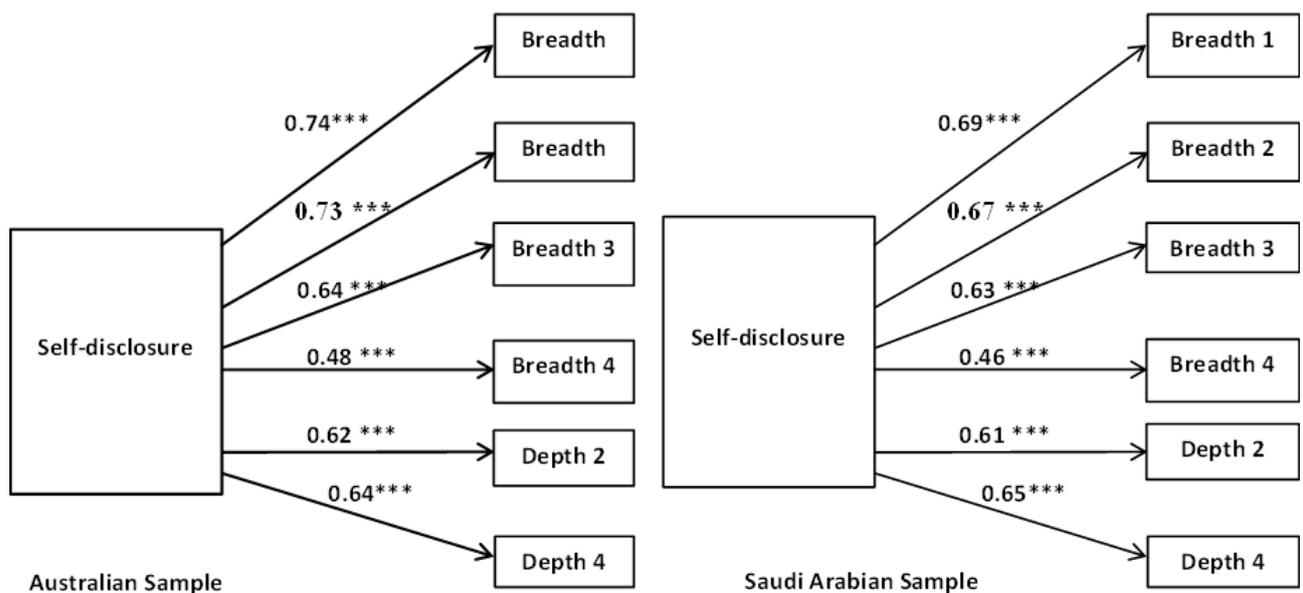


Figure 3: Self-disclosure confirmatory factor analysis results showing standardised factor loadings

4.6 DESCRIPTIVE STATISTICS

The following is a descriptive report of the responses to all the items in the questionnaire. SPSS software was used to obtain average mean and standard deviation for all variables.

Descriptive statistics for the Australian and Saudi Arabian samples were examined as a whole at first, then separately. The descriptive statistics showed that the mean and median values were very similar. Therefore, it is appropriate to report the mean and standard deviation as the descriptive statistics.

Skewness statistics showed that skewness was not a problem in the variables. Skewness was -1.07 for 'Maintaining Offline Relationships', which indicated a negative skewness, meaning that more participants were likely to respond to the questions with an 'agree'. However, the mean and median values were similar, and the sample size was large. In addition, the skewness was only slightly over the skewness criteria of 1.00 or above. According to the central limit theorem, in statistics, a sample size of 30 or above is required to assume a normal distribution, regardless of whether the source population is normal or skewed. Skewness for other variables ranged from 0.22 to 0.88.

Table 39 shows the descriptive statistics in the Australian and Saudi Arabian samples. The average result for the total item calculation was used. Independent samples t-tests were used to test for differences among the variables between the two samples. The Saudi Arabian respondents had significantly higher levels than Australians on the following variables: self-disclosure, $P < 0.001$ (Australia $M = 2.52$, Saudi $M = 2.87$); initiating relationship, $P < 0.001$ (Australia $M = 2.88$, Saudi $M = 3.77$); perceived reciprocity, $P < 0.001$ (Australia $M = 2.97$, Saudi $M = 3.57$); self-presentation, $P < 0.001$ (Australia $M = 3.12$, Saudi $M = 3.55$); anonymity, $P < 0.001$ (Australia $M = 2.07$, Saudi $M = 2.22$); and secrecy, $P < 0.037$ (Australia $M = 3.65$, Saudi $M = 3.81$). However, the Australian sample had a significantly higher level of motivation for maintaining offline relationships on Facebook, $P < 0.001$ (Australia $M = 4.19$, Saudi $M = 3.78$), and a slightly higher level of privacy concerns than the Saudi Arabian sample, $P = 0.345$ (Australia $M = 3.54$, Saudi $M = 3.49$).

Independent samples t-tests were also used to test for differences in using Facebook between the two Samples. The Australian respondents had significantly higher levels than Saudi Arabian respondents with regard to the following: the age of their Facebook accounts, $P < 0.001$ (Australia $M = 5.45$, Saudi $M = 4.76$); time spent in using Facebook, $P < 0.001$ (Australia $M = 3.80$, Saudi $M = 2.91$); number of friends, $P < 0.001$ (Australia $M = 6.13$, Saudi $M = 4.43$); and number of groups, $P < 0.001$ (Australia $M = 3.35$, Saudi $M = 2.74$).

Table 39 *Descriptive Statistics*

	Australian		Saudi Arabian		p
	M	SD	M	SD	
Self-disclosure	2.52	0.74	2.87	0.71	<0.001
Initiating Relationship	2.88	0.90	3.77	0.78	<0.001
Maintaining offline relationship	4.19	0.65	3.78	0.83	<0.001
Privacy Concerns	3.54	0.82	3.49	0.75	0.345
Secrecy	3.65	1.01	3.81	0.93	0.037
Reciprocity	2.97	1.01	3.57	0.96	<0.001
Self-presentation	3.12	1.00	3.55	0.93	<0.001
Anonymity	2.07	0.79	2.22	1.02	0.021
Age of Facebook accounts	5.45	1.39	4.76	1.66	<0.001
Time spent in using Facebook	3.80	1.42	2.91	1.53	<0.001
Number of friends	6.13	2.36	4.43	2.25	<0.001
Number of groups	3.35	1.14	2.74	1.19	<0.001

4.7 DIFFERENCES IN DEMOGRAPHIC CHARACTERISTICS

4.7.1 Gender

Independent samples t-tests were conducted to compare gender differences in all variables of interest (see Table 40). In the Australian sample, self-disclosure was significantly different between genders. Although both genders had moderately low levels of self-disclosure, males did have lower levels, suggesting that Australian females self-disclose more than Australian males. For secrecy, both genders were in overall agreement; however, it was found that the females had significantly higher levels of secrecy than the males. The females also had higher levels of self-presentation than the males; however, these results were not statistically significant. There were no gender differences in initiating relationships, maintaining offline relationships, privacy, perceived reciprocity, and anonymity.

In the Saudi Arabian sample, there were no gender differences in self-disclosure. Initiating relationships was higher in males, but the result was not statistically significant. Maintaining offline relationships, perceived privacy, perceived secrecy, and self-presentation also did not differ across gender. A

significant result was observed for reciprocity, with the females having significantly higher levels of reciprocity than the males. It was also observed that the females had significantly higher levels of anonymity than the males.

Table 40 *Gender Differences in Variables*

	Male		Female		p
	M	SD	M	SD	
Australian					
Self-disclosure	2.38	0.76	2.59	0.72	0.009
Initiating Relationship	2.89	0.88	2.87	0.92	0.885
Maintaining offline relationships	4.12	0.67	4.23	0.64	0.126
Privacy Concerns	3.45	0.88	3.60	0.78	0.107
Secrecy	3.44	1.18	3.77	0.89	0.004
Reciprocity	2.86	1.08	3.03	0.97	0.136
Self-presentation	3.00	1.26	3.25	1.08	0.057
Anonymity	1.99	0.87	2.10	0.74	0.24
Saudi Arabia					
Self-disclosure	2.86	0.72	2.88	0.69	0.810
Initiating Relationships	3.52	0.78	3.33	0.77	0.054
Maintaining offline relationships	3.82	0.82	3.66	0.84	0.131
Privacy Concerns	3.47	0.76	3.54	0.72	0.443
Secrecy	3.76	0.95	3.95	0.86	0.121
Reciprocity	3.33	0.99	3.59	0.84	0.038
Self-presentation	3.61	1.06	3.40	1.00	0.123
Anonymity	1.82	0.86	2.78	0.98	0.00

p values for t-tests

4.7.2 Age

Correlation analyses were used to examine the association between age and all variables of interest (see Table 41). In the Australian sample, age was not related to self-disclosure. A significant positive correlation was observed between age and initiating relationships. It was found that when age increased, initiating relationships increased. For maintaining offline relationships, a significant negative correlation was found with age. In addition, perceived privacy concerns were found to be positively associated with age. While this result was statistically significant, however, the effect was weak. These results imply that as age increased, initiating relationships and perceived privacy concerns increased, while maintaining offline

relationships decreased. There were no significant correlations between age and secrecy, perceived reciprocity, self-presentation and anonymity.

In the Saudi Arabian sample, age was not related to self-disclosure. In addition, age was not significantly associated with any variables of interest.

Table 41 *Correlation between Age and All Variables*

	Age	
	r	p
Australia		
Self-disclosure	-0.01	0.808
Initiating relationships	0.12	0.022
Maintaining offline relationships	-0.14	0.011
Privacy concerns	0.14	0.010
Secrecy	0.06	0.251
Reciprocity	-0.07	0.209
Self-presentation	-0.09	0.111
Anonymity	0.08	0.161
Saudi Arabia		
Self-disclosure	-0.03	0.584
Initiating relationships	0.05	0.356
Maintaining offline relationships	-0.07	0.211
Privacy concerns	0.05	0.350
Secrecy	-0.02	0.766
Reciprocity	-0.073	0.199
Self-presentation	-0.05	0.370
Anonymity	-0.07	0.23

p values for Spearman's correlation

4.7.3 Marital Status

Independent samples t-tests were conducted to compare marital status differences in all variables of interest (see Table 42). In the Australian sample, while self-disclosure, maintaining offline relationships, and reciprocity were higher for single people, the results did not reach statistical significance. Self-presentation was similar for both marital states. However, relationship initiation, perceived privacy concerns, secrecy, and anonymity were slightly higher in people who were married or in a relationship.

In the Saudi Arabian sample, self-disclosure significantly differed with marital status. While both single and partnered participants had moderately low levels of self-disclosure, the former had higher levels than the latter. Also, maintaining offline relationships, initiating relationships, reciprocity, self-presentation, and anonymity were higher with single status, but not significantly so. However, perceived privacy concerns were significantly higher for people in a relationship. Secrecy was also higher for this group, but not significantly so.

Table 42 *Marital Status Differences in Variables*

	Single		Married/in a relationship		p
	M	SD	M	SD	
Australian					
Self-disclosure	2.57	0.77	2.46	0.70	0.19
Initiating relationships	2.87	0.91	2.89	0.89	0.85
Maintaining offline relationships	4.25	0.61	4.13	0.69	0.08
Privacy concerns	3.53	0.82	3.56	0.82	0.74
Secrecy	3.61	1.04	3.70	0.99	0.38
Reciprocity	3.01	1.02	2.93	1.00	0.51
Self-presentation	3.16	1.16	3.16	1.14	0.95
Anonymity	1.98	0.80	2.15	0.78	0.06
Saudi Arabia					
Self-disclosure	2.95	0.70	2.77	0.71	0.03
Initiating relationships	3.50	0.80	3.45	0.76	0.60
Maintaining offline relationships	3.80	0.82	3.76	0.83	0.67
Privacy concerns	3.41	0.77	3.57	0.71	0.05
Secrecy	3.77	0.94	3.87	0.91	0.34
Reciprocity	3.60	0.77	3.54	0.65	0.48
Self-presentation	3.57	1.11	3.54	0.97	0.84
Anonymity	2.14	1.00	1.99	0.97	0.17

p values for t-tests

4.7.4 Education

Correlation analyses were used to examine the association between education and all variables of interest (see Table 43). In the Australian sample, a significant positive correlation was found between education and privacy concerns, with a higher education level correlated with greater privacy concerns. The analysis revealed that education was not related to any other variables, including self-disclosure.

In the Saudi Arabian sample, both initiating relationships and anonymity were significantly and negatively correlated with education. However, a significant positive correlation was found between education and maintaining offline relationships. In short, as education increased, initiating relationships and anonymity decreased, while maintaining offline relationships increased. There were no significant correlations between education and other interest variables, including self-disclosure.

Table 43 *Correlation between Education and All Variables*

		Education	
		r	p
Australia			
	Self-disclosure	-0.08	0.13
	Initiating relationships	0.00	0.96
	Maintaining offline relationships	-0.07	0.17
	Privacy concerns	.137	0.01
	Secrecy	0.00	0.93
	Reciprocity	-0.06	0.27
	Self-presentation	-0.04	0.46
	Anonymity	0.00	0.97
Saudi Arabia			
	Self-disclosure	-0.09	0.13
	Initiating relationships	-.150	0.01
	Maintaining offline relationships	.120	0.04
	Privacy concerns	-0.01	0.82
	Secrecy	-0.01	0.84
	Reciprocity	-0.09	0.10
	Self-presentation	-0.02	0.67

Anonymity	-0.273	0.00
p values for Spearman's correlation		

4.7.5 Employment

In the Australian sample, differences in employment categories did not affect self-disclosure, maintaining offline relationships, privacy concerns, anonymity, reciprocity and self-presentation (see Table 44). However, a significant result was realised for initiating relationships for people who belonged to the ‘other’ employment category. Secrecy was also higher for the ‘other’ category, but not significantly.

In the Saudi Arabian sample, there was a significant indication that students maintain offline relationships. There was also a high correlation between anonymity and the ‘other’ employment category. However, employment categories was not seen to impact on self-disclosure, initiating relationships, perceived privacy concerns, perceived reciprocity, secrecy, and self-presentation.

Table 44 *Employment Effect on Variables*

	Student		Government employee		Private sector employee		Other		p	
	M	SD	M	SD	M	SD	M	SD		
Australian										
Self-disclosure	2.46	0.69	2.54	0.77	2.61	0.75	2.65	0.95	0.34	
Initiating relationships	2.79	0.86	2.88	0.91	2.97	0.94	3.24	1.03	0.04	
Maintaining offline relationships	4.25	0.62	4.05	0.76	4.05	0.69	4.19	0.66	0.11	
Privacy concerns	3.55	0.83	3.78	0.67	3.38	0.87	3.66	0.72	0.14	
Secrecy	3.65	0.99	3.28	1.17	3.62	1.09	4.00	0.84	0.06	
Reciprocity	2.98	1.03	2.92	1.08	2.94	0.92	3.00	1.06	0.98	
Self-presentation	3.14	1.15	2.96	1.06	3.19	1.15	3.34	1.26	0.63	
Anonymity	2.06	0.77	1.96	0.89	1.96	0.76	2.34	0.84	0.11	

Saudi Arabia

Self-disclosure	2.89	0.75	2.92	0.69	2.76	0.70	2.72	0.65	0.43
Initiating relationships	3.42	0.80	3.51	0.76	3.38	0.86	3.68	0.72	0.33
Maintaining offline relationships	3.87	0.80	3.76	0.86	3.87	0.79	3.40	0.73	0.04
Privacy concerns	3.38	0.79	3.58	0.75	3.39	0.57	3.64	0.74	0.10
Secrecy	3.80	0.94	3.79	0.92	3.74	0.83	4.03	1.00	0.56
Reciprocity	3.58	0.78	3.62	0.64	3.40	0.81	3.60	0.63	0.46
Self-presentation	3.52	1.11	3.69	0.97	3.42	0.95	3.33	1.18	0.27
Anonymity	2.10	0.96	1.98	1.04	1.84	0.78	2.59	0.95	0.01

4.7.6 Age of Facebook Account

The correlation analyses were used to examine the association between the age of individuals' Facebook accounts, and all variables of interest (see Table 45). In the Australian sample, a significant positive correlation was found between the length of time the participants held a Facebook account, and self-disclosure, reciprocity and self-presentation, while there was a significant negative correlation with anonymity. This result indicated that an increase in the period of holding a Facebook account leads to an increase in self-disclosure, reciprocity and self-presentation, and a decrease in anonymity. There was no significant correlation between the age of one's Facebook account and other interest variables.

In the Saudi Arabian sample, the age of one's Facebook account was significantly and positively related to maintaining offline relationships. As was the case for the Australian sample, however, results showed a significantly negative relationship between the age of one's Facebook account and anonymity. The result showed that the longer a user has a Facebook account, the more they maintain offline relationships, and the less their Facebook anonymity. There were no significant results for correlation between the age of one's Facebook account and other variables of interest.

Table 45 *Correlation between Age of Facebook Account and Variables*

	Age of Facebook Account	
	r	p

Australia

Self-disclosure	.190	0.00
Initiating relationships	-0.08	0.16
Maintaining offline relationships	0.08	0.13
Privacy concerns	-0.05	0.37
Secrecy	0.03	0.53
Reciprocity	.123	0.02
Self-presentation	.190	0.00
Anonymity	-.110	0.04

Saudi Arabia

Self-disclosure	0.09	0.11
Initiating relationships	-0.03	0.57
Maintaining offline relationships	.232	0.00
Privacy concerns	-0.06	0.34
Secrecy	-0.06	0.26
Reciprocity	-0.01	0.86
Self-presentation	0.10	0.08
Anonymity	-.330	0.00

p values for Spearman's correlation

4.7.7 Daily Use of Facebook

The correlation analyses were used to examine the association between time spent in using Facebook per day and all variables of interest (see Table 46). In the Australian sample, time spent in using Facebook per day positively and significantly correlated with self-disclosure, initiating relationships, maintaining offline relationships, reciprocity, and self-presentation. However, it is also negatively and significantly correlated with perceived privacy concerns. There were no significant results for correlation of time spent on Facebook and secrecy or anonymity.

As was the case for the Australian sample, the Saudi Arabian sample analyses indicated that time spent in using Facebook positively and significantly correlated with self-disclosure, initiating relationships, and reciprocity. There were no significant results suggesting a correlation between time spent on Facebook and maintaining offline relationships, self-presentation, privacy concerns, secrecy or anonymity.

Table 46 *Correlation between Daily Facebook Usage and Variables*

Time spent in using Facebook

		per day	
		r	p
Australia			
	Self-disclosure	0.28	0.00
	Initiating relationships	0.28	0.00
	Maintaining offline relationships	0.16	0.00
	Privacy concerns	-0.20	0.00
	Secrecy	0.08	0.16
	Reciprocity	0.12	0.02
	Self-presentation	0.24	0.00
	Anonymity	-0.03	0.52
Saudi Arabia			
	Self-disclosure	0.316	0.00
	Initiating relationships	0.265	0.00
	Maintaining offline relationships	0.10	0.09
	Privacy concerns	0.03	0.59
	Secrecy	0.09	0.13
	Reciprocity	0.246	0.00
	Self-presentation	0.09	0.13
	Anonymity	-0.04	0.53

p values for Spearman's correlation

4.7.8 Friends' Number

The correlation analyses were used to examine the association between number of friends and all variables of interest (see Table 47). In the Australian sample, number of friends positively and significantly correlated with self-disclosure, initiating relationships, and self-presentation. However, it is also negatively and significantly correlated with privacy concerns and anonymity. In other words, the greater one's number of friends, the greater one's self-disclosure, initiation of relationships and self-presentation, and the less one's privacy concerns and anonymity. There were no significant results to indicate a correlation between numbers of friends and maintaining offline relationships, secrecy, and reciprocity.

In similar vein, the Saudi Arabian sample shows that number of friends positively and significantly correlated with self-disclosure, initiating relationships, maintaining offline relationships, and self-presentation. The number of friends was also negatively and significantly associated with reciprocity. There were no

significant findings to suggest a relationship between number of friends and perceived privacy concerns, secrecy, and anonymity.

Table 47 *Correlation between Number of Friends and All Variables*

		Number of friends	
		r	p
Australia			
	Self-disclosure	0.13	0.02
	Initiating relationships	0.17	0.00
	Maintaining offline relationships	0.09	0.08
	Privacy concerns	-0.14	0.01
	Secrecy	0.07	0.21
	Reciprocity	-0.10	0.07
	Self-presentation	0.13	0.01
	Anonymity	-0.16	0.00
Saudi Arabia			
	Self-disclosure	0.202	0.00
	Initiating relationships	0.205	0.00
	Maintaining offline relationships	0.166	0.00
	Privacy concerns	-0.02	0.68
	Secrecy	-0.03	0.65
	Reciprocity	-0.258	0.00
	Self-presentation	0.186	0.00
	Anonymity	0.10	0.08

p values for Spearman's correlation

4.7.9 Groups' Number

The correlation analyses were used to examine the association between groups' number and all variables of interest (see Table 48). In the Australian sample, groups' numbers positively and significantly correlated with self-disclosure, maintaining offline relationships, initiating relationships, and reciprocity. There was no relationship between privacy concerns and groups' number. Also, there were no significant results for a correlation between the groups' number and self-presentation, secrecy, and anonymity.

In the Saudi Arabian sample, the groups' number was positively and significantly associated with self-disclosure and initiating relationship. It was also negatively associated with anonymity. These results imply that as groups' number increased, self-disclosure and initiating relationships increased. Anonymity, on the other hand, decreased. There was no significant correlation between groups' number

and maintaining offline relationships, privacy concerns, secrecy, reciprocity, and self-presentation.

Table 48 *Correlation between Number of Groups and All Variables*

		Groups number	
		r	p
Australia			
	Self-disclosure	0.16	0.00
	Initiating relationships	0.18	0.00
	Maintaining offline relationships	0.12	0.02
	Privacy concerns	0.00	1.00
	Secrecy	0.07	0.17
	Reciprocity	0.11	0.04
	Self-presentation	0.10	0.07
	Anonymity	-0.05	0.37
Saudi Arabia			
	Self-disclosure	0.18	0.00
	Initiating relationships	0.15	0.01
	Maintaining offline relationships	0.07	0.19
	Privacy concerns	-0.04	0.51
	Secrecy	-0.03	0.62
	Reciprocity	0.09	0.11
	Self-presentation	0.06	0.29
	Anonymity	-0.13	0.03

p values for Spearman's correlation

4.7.10 Profile Visibility

Independent samples t-tests were conducted to compare profile visibility differences in all variables of interest (see Table 49). In the Australian sample, there were no profile visibility differences in self-disclosure, initiating relationships, maintaining offline relationships, secrecy, reciprocity, and self-presentation. However, there were significant results to suggest a correlation between privacy concerns and having one's profile visible to friends only, and between anonymity and a profile visible to friends only.

In the Saudi Arabian sample, profile differences did not affect self-disclosure, secrecy, reciprocity, and self-presentation. Having a profile that was limited to friends only had a significant effect on maintaining offline relationships, and a public profile (that is, one open to all Facebook users) had a significant effect on initiating relationships. Also, privacy concerns and anonymity were significantly affected

when users limited their profile to friends only. Anonymity was significantly higher when profiles were accessible to all Facebook users.

Table 49 *Profile Visibility Effect on Variables*

	All Facebook Users		Only my friends		p
	M	SD	M	SD	
Australian					
Self-disclosure	2.75	0.87	2.7	0.72	0.32
Initiating relationships	3.25	1.01	2.85	0.89	0.08
Maintaining offline relationships	3.95	0.57	4.29	0.66	0.06
Privacy concerns	2.99	0.87	3.58	0.81	0.00
Secrecy	3.95	1.02	3.63	1.00	0.37
Reciprocity	3.14	0.96	2.96	1.02	0.72
Self-presentation	3.52	1.25	3.43	1.14	0.26
Anonymity	1.52	0.51	2.09	0.79	0.00
Saudi Arabia					
Self-disclosure	2.95	0.65	2.88	0.73	0.36
Initiating relationships	3.64	0.68	3.32	0.79	0.04
Maintaining offline relationships	3.50	0.81	3.88	0.77	0.00
Privacy concerns	3.30	0.81	3.53	0.73	0.04
Secrecy	3.79	0.89	3.81	0.93	0.95
Reciprocity	3.66	0.81	3.54	0.68	0.46
Self-presentation	3.79	0.98	3.50	1.07	0.07
Anonymity	2.75	1.05	2.00	0.90	0.00

4.8 FULL MODEL TESTING WITH STRUCTURAL EQUATION MODELLING

The full measurement model was tested in order to establish the fit and validity of the structural model as a whole rather than as an end in itself (Hair Jr, Anderson, & Tatham, 1986). This required the testing of the structural model as well as the testing of the significance of the structural relationships. Structural Equation

Modelling (SEM) was used to conduct this testing. SEM is very powerful multivariate analysis technique that tests hypotheses and provides a general framework for modelling relationships in multivariate data (Bollen, 1998; Byrne, 2006; Hayduk, 1987; Hoyle, 1995).

An advantage of SEM is its capacity to estimate and test the relationships among constructs, and its allowance of the use of multiple measures to represent constructs and address the issue of measure-specific error (Byrne, 2009; Kline, 2010). SEM has become the technique of choice for researchers across disciplines. It has been widely used in testing and measuring hypotheses since it was introduced to the market (Bagozzi & Yi, 1988, 1989; Fornell & Larcker, 1981; Kunnan, 1998; MacLean & Gray, 1998). It is also statistically helpful in comparing the model with two different groups of population (MacLean & Gray, 1998) – as was the case with this current study – to see whether certain aspects of a structural equation model are the same across groups (for example, gender and culture). The following sections report the results of the testing of the structural model.

4.8.1 Results of Testing for Structural Model Fit

In both the Australian and Saudi Arabian samples, the SEM was conducted using Amos Version 17.0 (Arbuckle, 2008) to fit the model in accordance with the research aim. Observed variables were entered in the analysis, and the dependent variable was self-disclosure. The independent variables were maintaining offline relationships, initiating relationships, privacy concerns, self-presentation, reciprocity, secrecy, and anonymity. Paths were entered to self-disclosure from maintaining offline relationships, relationship initiating, privacy concerns, self-presentation and reciprocity. Paths were entered to privacy from secrecy and anonymity. Error variances were included for each observed item.

Maximum likelihood method was used for model fitting and estimations. Saturated and independence models were fitted. Standardized estimates, squared multiple correlations, and factor score weights were used to examine each item. Model fit was determined by a non-significant χ^2 result, high values of Normed Fit Index (NFI) and Comparative Fit Index (CFI) above 0.95 (Arbuckle & Wothke, 1999; Byrne, 1994; Hu & Bentler, 1999; Schumacker & Lomax, 1996), and low

values of RMSEA below 0.05 (Arbuckle & Wothke, 1999; Hu & Bentler, 1999; Steiger, 1990). Modification indices were used to improve the fit of the model.

In the Australian sample, results indicated that the chi-square test was not statistically significant: $\chi^2=9.74$, $df=12$, $p=0.639$. The model fit indices suggested a good model fit: $CFI>0.99$, $NFI=0.978$, $RMSEA<0.01$. In the Saudi Arabian sample, results showed that the chi-square test was not statistically significant: $\chi^2=6.179$, $df=8$, $p=0.627$. The model fit indices suggested a good model fit: $CFI>0.99$, $NFI=0.98$, $RMSEA<0.01$.

4.8.2 Results from Hypotheses' Testing

The R-squared (R^2) is an estimate of the proportion of the variance in the latent variable, explained in terms of the variance in the other latent variables with arrows leading into it. Cohen's (1992) subjective criteria for the interpretation of the effect sizes in multiple partial correlation analysis – given by $f^2 = R^2/(1-R^2)$ – were used to interpret the R^2 values: trivial (0 to .1), small (>.1 to .3), medium (>.3 to .5), or large (>.5). The larger the value of the effect size, the stronger the relationship between the variables. The significance value (P-value) is 0.05 (significance level of 5%) (Byrne, 2009).

The Australian Sample

The model explains 52% of the variance in self-disclosure.

Hypothesis 1 was that 'The perceived opportunity for maintaining offline relationships increases self-disclosure on Facebook'. Self-disclosure on Facebook was significantly predicted by the motivation to maintain offline relationships; P-value is less than 0.001, and with a positive 'small' effect (0.141). Therefore, the hypothesis is accepted, thus implying that maintaining offline relationships on Facebook increases the self-disclosure of Australian participants.

Hypothesis 2 was that 'The perceived opportunity for initiating new relationships increases self-disclosure in Facebook'. Self-disclosure on Facebook was significantly predicted by the motivation to initiate new relationships; P-value is less than 0.01, and with a positive 'small' effect (0.112). Therefore, the hypothesis is accepted, thus confirming that initiating relationships on Facebook increases the self-disclosure of Australian participants.

Hypothesis 3 was that ‘Perceived opportunities for self-presentation increase self-disclosure in Facebook’. Self-disclosure on Facebook was significantly predicted by the perceived opportunities for self-presentation; P-value is less than 0.001, and with a positive ‘medium’ effect (0.457). Therefore, the hypothesis is accepted, indicating that perceiving opportunities for self-presentation on Facebook is significantly associated with higher levels of self-disclosure. The analysis also showed that self-presentation is the greatest predictor of Australian participants’ self-disclosure on Facebook.

Hypothesis 4 was that ‘Seeing other people generating content, including personal content, increases self-disclosure in Facebook’. Self-disclosure on Facebook was significantly predicted by reciprocity; P-value is less than 0.001, and with a positive ‘small’ effect (0.257). Therefore, the hypothesis is accepted, showing that reciprocity on Facebook significantly increases the self-disclosure of Australian participants.

Hypothesis 5 was that ‘Perceived privacy concerns decrease self-disclosure in Facebook’. Self-disclosure on Facebook was significantly predicted by perceived privacy concerns; P-value is less than 0.001 and with a negative ‘small’ effect (-0.144). Therefore, the hypothesis is accepted, and implies that privacy concerns on Facebook decrease self-disclosure significantly.

Hypothesis 6 was that ‘The ability to remain anonymous to members of Facebook communities reduces users’ privacy concerns surrounding self-disclosure on Facebook’. However, the results rejected this hypothesis by indicating a trivial positive effect (0.098), and P-value is higher than 0.05.

Hypothesis 7 was that ‘Perceived secrecy reduces the privacy concerns surrounding self-disclosure on Facebook’. However, the results also rejected this hypothesis by indicating a trivial positive effect (0.059), and P-value is above 0.05.

Figure 4 illustrates the restructured research model and the hypotheses, with the effect size for each hypothesis. Table 50 also shows the standardized path coefficient, P-value and hypothesis evaluation for the Australian sample.

The Saudi Arabian Sample

The model explains 39% of the variance in self-disclosure (R²).

Hypothesis 1 was that ‘The perceived opportunity for maintaining offline relationships increases self-disclosure on Facebook’. Self-disclosure on Facebook was significantly predicted by the motivation to maintain offline relationships; P-value is less than 0.05, and with a positive ‘small’ effect (0.133). Therefore, the hypothesis is accepted, implying that maintaining offline relationships in Facebook increases the self-disclosure of Saudi Arabian participants.

Hypothesis 2 was that ‘The perceived opportunity for initiating new relationships increases self-disclosure in Facebook’. Self-disclosure on Facebook was significantly predicted by initiating new relationships; P-value is less than 0.001, and with a positive ‘small’ effect (0.248). Therefore, the hypothesis is accepted, confirming that initiating relationships on Facebook increases the self-disclosure of Saudi Arabian participants.

Hypothesis 3 was that ‘Perceived opportunities for self-presentation increase self-disclosure in Facebook’. However, the results rejected this hypothesis by indicating a trivial positive effect (0.079), and P-value is more than 0.05.

Hypothesis 4 was that ‘Seeing other people generating content, including personal content, increases self-disclosure in Facebook’. Self-disclosure on Facebook was significantly predicted by the perceived reciprocity; P-value is less than 0.001, and with a positive ‘medium’ effect (0.347). Therefore, the hypothesis is accepted, indicating that reciprocity on Facebook increases self-disclosure. The result also suggests that this factor is the greatest predictor of the self-disclosure of Saudi Arabian participants on Facebook.

Hypothesis 5 was that ‘Perceived privacy concerns decrease self-disclosure in Facebook’. However, the results totally rejected this hypothesis by indicating a trivial positive effect (0.006), and P-value is 0.902.

Hypothesis 6 was that ‘The ability to remain anonymous to members of Facebook communities reduces users’ privacy concerns surrounding self-disclosure on Facebook’. However, the results rejected this hypothesis with a contradictory indication of a significant positive relationship with privacy concerns in ‘small’ effect (0.171), and P-value is less than 0.001 – implying that anonymity on Facebook increases privacy concerns for Saudi Arabian participants.

Hypothesis 7 was that ‘Perceived secrecy reduces the privacy concerns surrounding self-disclosure on Facebook’. However, the results also rejected this hypothesis with a contradictory indication of a significant positive relationship with privacy concern in ‘small’ effect (0.212), and P-value is 0.001 – implying that secrecy on Facebook is associated with a higher level of privacy concerns for Saudi Arabian participants.

Figure 4 illustrates the restructured research model and the hypotheses with the effect size for each hypothesis. Table 50 also shows the standardized path coefficient, P-value and hypothesis evaluation for the Australian and Saudi Arabian samples.

Table 50 Standardized Path Coefficient, P-value and Hypothesis Evaluation for the Australian and Saudi Arabian Samples

Hypothesis	Construct A → Construct B	Path Coefficient	P-value	Rejected/ Supported
Australia				
H1	Maintaining offline relationships → Self-disclosure	0.141	0.000***	Accepted
H2	Initiating relationships → Self-disclosure	0.112	0.004**	Accepted
H3	Self-presentation → Self-disclosure	0.457	0.000***	Accepted
H4	Reciprocity → Self-disclosure	0.257	0.000***	Accepted
H5	Privacy concerns → Self-disclosure	-0.144	0.000***	Accepted
H6	Anonymity → Privacy concerns	0.098	0.065	Rejected
H7	Secrecy → Privacy concerns	0.059	0.267	Rejected
Saudi Arabia				
H1	Maintaining offline relationships → Self-disclosure	0.133	0.012*	Accepted
H2	Initiating relationships → Self-disclosure	0.248	0.000***	Accepted
H3	Self-presentation → Self-disclosure	0.079	0.166	Rejected
H4	Reciprocity → Self-disclosure	0.347	0.000***	Accepted

H5	Privacy concerns → Self-disclosure	0.006	0.902	Rejected
H6	Anonymity → Privacy concerns	0.171	0.000***	Rejected
H7	Secrecy → Privacy concerns	0.212	0.000***	Rejected

* Significant at 5%, ** significant at 1%, *** significant at .1%

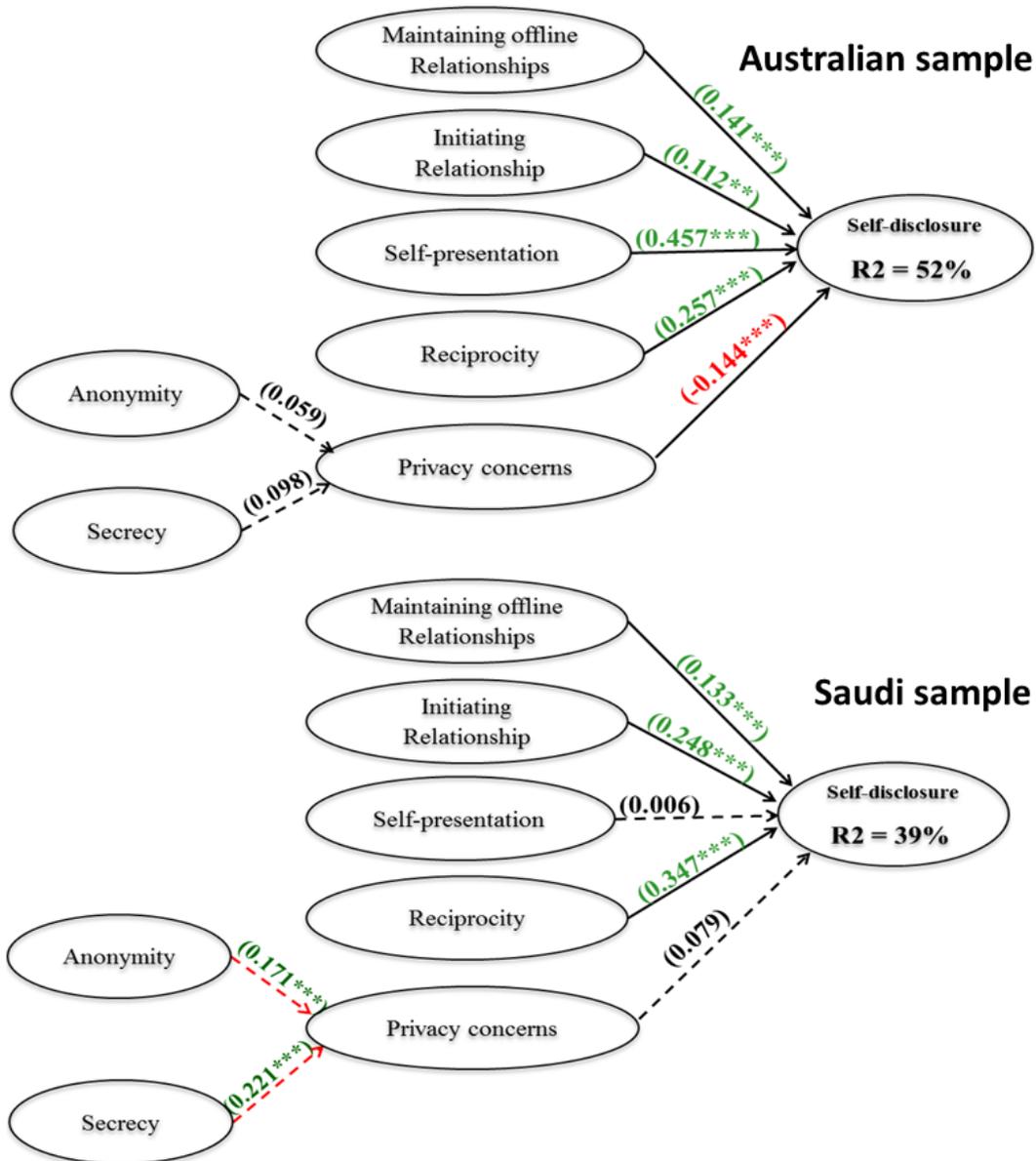


Figure 4: Structural equation model analysis results showing standardized factor loadings in the Australia and Saudi samples.

* significant at 5%, ** significant at 1%, ***significant at .1% , —→ a significant link , ----→ an insignificant link, - - - -> a contradicted link

4.9 SUMMARY OF THE QUANTITATIVE PHASE RESULT

This chapter has described the results from the various statistical analyses conducted during phase one of the study. In this phase, the data were collected by an online questionnaire from 659 Facebook users in Saudi Arabia and Australia – 308 from Saudi Arabia and 351 from Australia. Data analysis began with preliminary analyses in which the issues of ineligible cases, cases with missing data; outliers' cases; cases with unengaged responses; cases with unrealistic answers; and cases that failed the reversed coded questions test. Reliability and validity were then demonstrated using PCA and CFA for the self-disclosure and associated independent factors. Several demographic variables were then measured, and used for describing the participants.

SEM analysis was the conducted. The model explains 52% of the variance in self-disclosure for the Australian sample, and 39% for the Saudi Arabian sample. In both the Australian and Saudi Arabian samples, self-disclosure was significantly predicted by maintaining offline relationships, initiating relationships, and reciprocity. The Saudi Arabian sample showed a stronger factor loading in initiating relationships and reciprocity than the Australian sample, while the Australian sample showed a stronger factor loading in maintaining offline relationship. Self-presentation also predicted self-disclosure positively and significantly in the Australian sample, representing the most important predictor for this sample. However, this relationship did not hold for the Saudi Arabian sample. With respect to privacy concerns, a significant negative association was observed for the Australian sample; again, however, this did not hold true for the Saudi Arabian sample. There were no relationships found between anonymity and privacy concerns, and secrecy and privacy concerns for the Australian sample. Finally, in contradiction of the hypothesis, anonymity and secrecy showed a positive and significant relationship with privacy concerns in the Saudi Arabian sample.

In addition to the quantitative data, qualitative data through interviews were also collected for the purpose of seeking further clarification of the analysis of the quantitative data in order to reach a depth understanding of the research problem at hand. The interview findings will be discussed in the following chapter. Both quantitative and qualitative results were combined and discussed in chapter 7, building the big picture of this research problem.

Chapter 5: Qualitative Phase Results

5.1 INTRODUCTION

Chapter 5 presents the findings of the second methodological phase of this research – the follow-up qualitative study. A wide range of data concerning opinions and views about self-disclosure on Facebook were collected from participants in Saudi Arabia and Australia. Such data was important in answering the research questions and achieving the sophisticated cross-cultural understanding of the self-disclosure phenomenon. Two types of methods were used to obtain this qualitative data: 1) an open question added to the online questionnaire (Saudi Arabia n=190, Australia n=201), and 2) semi-structured interviews with many participants who had also participated in the quantitative study (Saudi Arabia n=12, Australia n=8).

As suggested by this mixed methods design, both quantitative and qualitative results were integrated, and these are discussed in detail as one result in Chapter 6 of this document (Creswell & Clark, 2010). Thus, it is important to note that this chapter is concerned with presenting the qualitative findings, rather than discussing them with regard to their relationship to the quantitative results or to the existing literature. These steps are addressed in Chapter 6.

5.2 SELF-DISCLOSURE

In this qualitative phase, four categories of self-disclosure on Facebook were suggested: 1) personally identifiable information, 2) thoughts, beliefs, and opinions, 3) expression of feelings, and 4) everyday activities and life-changing events. A cross-cultural comparison of the data from both the Australian and Saudi Arabian participants was made. This comparison suggests that cultural differences play a significant role in self-disclosure on Facebook. This role, in turn, both complicates and enriches our understanding of the phenomenon.

5.2.1 Personally Identifiable Information

Australian Participants

The Australian participants appeared to disclose only a small amount of basic personally identifiable information on Facebook – such as name, personal photo, gender, and (perhaps) marital status – to enable their offline friends to locate them online. They believe that such personal details are not private and, therefore, submitting them to a public space such as Facebook is not particularly risky. However, they clearly rejected the practice of disclosing other personally identifiable information – such as telephone number, full date of birth, and email and home addresses – indicating that this type of information is more important and private, and that presenting it in a public space such as Facebook poses many potential risks such as identity theft, random contact, and cyberbullying.

My full name is there, two pictures at the top, my marital status. No mobile, no email, no home address are there; because people break into these things and steal identity. (P4, Private profile, AU)

It shows my name, photo, some details about my education. No address or contact details there, I do not like that kind of information to be too public so I can be found or called by random people. (P5, Private profile, AU)

I do not share sensitive personal information online. I do not disclose my full birth of date, where I live or my mobile number, not even my email...There could be somebody that does not like me then call me at annoying times or send you threatening things. (P7, Private profile, AU)

Saudi Arabian Participants

In Saudi Arabia, however, with the exception of anonymous users, interviewees showed a significant tendency to provide much of their personally identifying information on Facebook, including full name, personal photos, contact details (for example, telephone number; email, Skype, and home addresses), country and full date of birth, marital status, work and study details, and religion. They do so to enable their offline friends to easily locate and connect with them, as well as to make new online friends who can easily learn more about them. The Saudi participants considered that the public disclosure of much personally identifiable detail is safe, and is a matter of communication convenience.

Through my profile, you can know where I work, what I currently study, my personal email, mobile number, home address, marital status, Skype address, and other identifying information. My personal photo is also there. So, you can easily locate me and communicate with me... From 2006 until now, I have had no any concerns or problems because of providing this information on Facebook and I do not think would be. (P4, Public profile, SA)

My Facebook should present my true and full identity to others to be able to communicate with them and telling them who you are...I show my real information there, the country that I was born and grew up in, birth date, full name, language, ethnicity, religion, home address, personal email and mobile...Providing this information does not cause me any concern...I am not really worried about identity theft happening. (P5, Public profile, SA)

I changed my profile to be public, and purposely added my information to tell people who I really am, especially as there are many people having the same name as mine...I think this information is not secret and it is not a problem if it is seen by anyone. Who cares about that? (P2, Public profile, SA)

At the same time, it is important to note that female Facebook users in Saudi Arabia tend to demonstrate a different usage pattern. This is determined by traditional customs and beliefs in Saudi Arabia that do not condone the use of Facebook by females. Thus, many of the Saudi female participants showed a significant desire to remain anonymous on Facebook (by using false details), and this significantly limits online disclosure of personally identifiable information such as name and photos.

I have never revealed any real personal information like my name, photo, or my tribe name on any online system...based on my culture and tribal traditions, I would not be able to use Facebook if I were to reveal my real personal information. (P11, Female, SA)

Most females in Saudi Arabia do not use their real photos. They usually use natural looking photos or flowers. They do not use their real names either, and they might call themselves by the mother of their children name [for example, Ali's mum or Alex's mum], or use names from a song. Saudi females specifically do not reveal their real name or real photo on Facebook; it is very rare that they do that. (P1, Female, SA)

5.2.2 Thoughts, Beliefs and Opinions

Political Opinion

Australian Participants

The qualitative data suggests that Australian participants see Facebook as a platform for their political opinions, especially if there is a current controversial political issue (such as an upcoming election). They believe in freedom of speech, openly discuss political issues on Facebook, and provide their opinions without any expectation of penalty (for example, from the government) or conflict with others (such as friends who may have different political views and beliefs).

It [Facebook] is better than a soap box on a street corner. (P308, Open question, AU)

I use it [Facebook] politically especially at the moment [of election]. (P2, AU)

It is really great that we live in a country where we can post this sort of information [politic opinions and views] publicly and not be shot or put in jail for doing it. (P3, AU)

As you would have known the Australian election was on the weekend and all my friends are over Facebook and I chose not to read it because I know most of them voted with different persuasions than me. Everyone has different background and motivation, and I did not want to enter into an argument with my friends. (P5, AU)

Saudi Arabian Participants

On the other hand, within the Saudi Arabian sample, there was a lesser tendency to share political opinions and beliefs on Facebook. Because they have different understandings of, and motivations for their political views, many Saudi Arabians typically prefer to leave their political opinions off Facebook to avoid conflict with friends, who might not tolerate their opposing views:

Facebook is not the right place for sharing such things; I do not want my friends misunderstand or judge me based on my political opinions. (P1, SA)

I live in a controversial society [Saudi Arabia], where people find it very hard to accept others with their different views. Therefore, I avoid posting things that are controversial or arguable; and

politics is one of the main things that cause arguments in Saudi Arabia. (P4, SA)

One of my Facebook friends strongly supports the revolution in Syria. He argued with many friends who are against the revolution. Such arguing made them less intimate and less close friends. I do not write about my political opinion, as I respect all of my friends and their various views and opinions. (P6, SA)

Religious Opinions

Australian Participants

Expressing personal religious views is a type of self-disclosure, as these views provide other people with an individual's personal information and characteristics. Within the Australian sample, no participants acknowledged sharing religious content on Facebook. Furthermore, one participant commented that they purposely do not disclose religious opinions on Facebook because they only use it to connect with friends, and not to discuss such personal issues:

I do not present any religious or cultural opinions on my Facebook. It is more to connect with friends and share important things in my life and not discussing such personal things. (P5, Open question, AU)

Saudi Arabian Participants

With regard to sharing religious content on Facebook, there were two different categories of Saudi Arabian participants: those who disclose their religious opinions and views on Facebook, and those who tend not to disclose them at all. However, most of the Saudi Arabian interviewees stated in their Facebook profile that Islam was their religion. Some also mentioned the particular branch of Islam they belong to (for example, Sunna, Shia, or Sufi).

Most of the Saudi Arabian participants who disclose their religious opinions on Facebook report that they do this as a way of inviting and attracting non-Muslims into their religion. For example, one participant claimed that some media misrepresents Islamic values, and they used Facebook and their large networks to counter this misinformation and to share their personal religious opinions and activities that reflect positively on Islam. Similarly, Muslims from different branches might use Facebook to make self-disclosures reflecting their branch's beliefs,

principles and values, and to correct any possible misunderstanding that other branches might have about them.

I disclosed that I am a Moderate Sunni Muslim, I like to deal with everyone, whatever the religious beliefs or backgrounds...I many times use my Facebook page to call for Islam. If there is a thing that might give people good impression about Islam, I put it on Facebook, and this totally reflects my religious opinions. Because media sometimes mislead people about Islam and describe it as a bad and aggressive religion, I try to correct that, and tell others who we really are. (P4, SA)

One of the things that I share and discuss on Facebook is about our religious beliefs. It is clear that many people [from Sunni and other Islam branches] blaspheme and blackguard our beliefs as Shia, and I use Facebook to correct these wrong perceptions, and I think 60% of my friends have changed their opinions about us. (P12, SA)

The second category of Saudi Arabian Facebook participants do not like to share their religious opinions on Facebook. They explain this by their respect for discretion; their concern not to create any social conflict, misunderstanding, or disagreement; and their desire to avoid the disapproval of their Facebook friends who might have a different religious background, or be from a different branch of Islam.

Some also believe that disclosing religious opinions to people who do not share the same beliefs could be disrespectful and/or annoying. Persistent, annoying and disrespectful sharing of personal religious opinions on Facebook was proposed as possible grounds for deleting friends from Facebook (This was the case for one of the Saudi Arabia participants).

I never ever talk about my religious beliefs and views on Facebook. This is because my Facebook friends involve people who belong to all different branches of Islam, and others who are non-Muslims. Sharing my religious beliefs and views might annoy some of them, or cause them misunderstand me. (P6, SA)

I do not like to share my religious opinion and beliefs on Facebook. I have friends with different religious backgrounds, so sharing such content might cause a disagreement with those who do not share my beliefs...If you check my profile you will find that my religion is Islam, but I do not share any content about Islam, neither do I display religious opinions or beliefs. (P1, SA)

One of my friends is an atheist and consistently posted bad things about religions and their believers. He did not respect other people

beliefs and upbringings and tried to enforce us to accept his beliefs. I then decided to delete him from my network. (P6, SA)

Support for Social Issues

Australian Participants

Another type of self-disclosure on Facebook is the individual expression of opinions about, and support of a social cause or issue. For example, a user might attempt to gather either global or wide community support for this cause or issue. In this case, personal views and opinions are often publicly released and/or widely discussed on Facebook, resulting in significant self-disclosure for the individuals involved. Australian participants generally use Facebook to support a variety of causes and issues, disclosing more about themselves and their views in so doing:

I disclose on Facebook when I strongly support something and try to tell others about it. (P4, AU)

People are motivated to share opinions when, I think, they feel very passionate about things they feel strongly about. Things they want other people to know about and act on. For example, I got a friend who always shares petitions for various things like “Stop the Gold Mines” and stuff like that, wanting to enact social change (P5, AU)

At the same time, one of the participants disagreed with people who extensively use Facebook to support social issues, believing that these issues should be supported in the real world by specific and targeted actions within the actual communities to whom the issues are relevant and important:

I'm not on Facebook to listen to some nuttier complain about how gay people are sending us to hell, or vice versa, how LGBT rights are the new 'in' thing. People mistake their ability to have an opinion on the internet for going outside and doing something positive for the communities they claim to support. I see them change their profile picture to an 'equals' sign, but then not even bother to attend the equal rights rallies out there. (P331, Open question, AU)

Saudi Arabian Participants

As was the case with the Australian participants, it was generally reported that Saudi Arabian participants use Facebook to present and discuss their opinions around common and important issues in their society. As a specific example, the martial

status and role of women in Saudi Arabia is an important issue that is often discussed by the participants on Facebook, with the aim of changing people views in this regard.

I extensively discuss and share on Facebook my opinions about the common and pervasive issues in our community. Through our discussions and opinions exchanges we might find something that contributes on solving the issues. (P4, SA)

Women's rights are one of the important issues in our society. I am disappointed about and always criticize the treatment of women in our society. I always discuss this issue with others on Facebook and Twitter, try to change the existing beliefs and opinions about women roles in our society. (P9, SA)

5.2.3 Expression of Feelings

In this study, feeling disclosure relates to the reflection of the self, and the self-disclosure of personal feelings and emotions arising from specific personal experiences, situations, and circumstances. The analysis of the qualitative data suggests two types of feelings that are expressed on Facebook – positive (for example, happiness and excitement) and negative (for example, sadness and anger) – and two different way of disclosing such feelings: implicit and explicit.

Australian Participants

The majority of Australian participants reported that they use Facebook predominantly to explicitly express their positive feelings (describing the feelings and the causes of such feelings), and that they are less likely to share negative feelings or to vent their anger:

I do not use it [Facebook] to vent so I would more likely use it to share positive feelings. (P5, AU)

I am often reluctant to put that sort of stuff [negative feeling] on Facebook. (P3, AU)

I do not want to be a negative person that is always writing, "oh I'm so sad and my life is so hard" kind of thing. (P7, AU)

Using Facebook to create an artificial life was also noted in the Australian sample. This virtual life hides the negative side of real life, is always characterised by positive feelings and happy emotions, and might not necessarily represent the user's real-life situation. Wanting to look attractive and to give friends a good

impression is the reason why some users create and present this artificial life on Facebook.

I see many of my friends sharing their personal feelings and events in their lives, sending across the idea how successful or how happy they are in their lives. My experience has been mind-blowing. Often I do not meet most of them for years, and when I actually meet them, I have an experience totally different from the online interaction. People are not as happy in their lives as it seems on Facebook. It is a virtual environment with a second life. It is making people live dual lives. (P126, Open question, AU)

People who only share success and happy feelings make their lives look completely artificial, which I agree with, though I would probably be more prone to have this artificial glossy life because I do not share sad things. (P5, AU)

Four main reasons were suggested by Australian participants for avoiding negative self-disclosure on Facebook. The first is avoiding causing concern and grief for one's family and close friends.

I shared bad news about me saying that I feel very sad. My family and close friends who are on Facebook contacted me and said what is wrong, we are worried about you. I do not want them to worry about me. They have enough problems of their own. (P4, AU)

To avoid negative reactions or feedback that could exacerbate a situation is the second reason for not sharing negative feelings on Facebook:

If you display negative feelings or sad things, you might get negative reactions. I don't want 20 people going: "oh that's terrible, oh poor you". (P5, AU)

The third reason for not sharing negative feelings on Facebook is to avoid being misunderstood:

I might have had a bad day at work, I'm often reluctant to put this sort of stuff on Facebook because Facebook is seen by all my friends some of whom I actually work with, and I don't want anyone to think that I'm making any comments about particular people. You cannot always control what other people choose to interpret from what you say. (P3, AU)

Not to be boring or annoying is the fourth reason for sharing positive rather than negative feelings on Facebook. Australian participants generally believe that persistently sharing negative feelings or complaining about life difficulties on Facebook can be boring, annoying, distressing, and a reason for losing friends:

The most annoying people on Facebook are the people who are just sad all the time. I have hidden them because it was just getting annoying, they are sad all the time. I hid them. (P7, AU)

I got people who are my Facebook friends and who mostly whinge or gripe about things, and then it is all negative. Those are the people I unsubscribe from. Everything they display comes across as angry, and then it makes me angry as I pick up on other people's emotions. (P2, AU)

Interestingly, some of the Australian participants noted that they sometimes do express negative feelings on Facebook, but that they do so in a humorous manner, assuming that this light approach makes for an interesting post for their friends, supports and strengthens their own state of mind, and provides a reason for positive interactions and feedback:

If something bad happens to me I will phrase it in a funny way so making a joke of my own situation because I think that might make me feel better if I turn my situation into something funny (P7, AU)

If I am feeling especially shitty, if I am having a really a bad day, then I might just say that, but I'll say it in a joking way (P2, AU)

Saudi Arabian Participants

While the Saudi Arabian participants disclosed both positive and negative feelings on Facebook, the disclosure of negative emotions and sad feelings appears to be more prevalent. Some participants believe that sharing negative feelings on Facebook is a good thing, as this enables your friends to give you positive feedback to help reduce and relieve the pressure you are feeling.

I vent on Facebook whether I am happy or sad; depends on the situation –happiness or sadness. (P2, SA)

When a person is in a negative situation; he/she feels under pressure and sad. Facebook, to some extent, relieves such pain by enabling users to vent to their friends and receiving their positive comments, such as: “do not care about it” or “take it easy”.

Sharing feelings with others is something good, which we missed before the time of Facebook. (P4, SA)

One day, a friend of mine posted on Facebook group: “I hate you all”. We understood that she feels sad and faces some difficulties at that time. We all started consoling and reassuring her until she felt better and returned to her former self. (P7, SA)

It was also reported that the Saudi Arabian participants generally use two different methods of expressing their feelings on Facebook: explicit and implicit disclosure. They sometimes explicitly express their negative feelings by sending clear and direct messages to their Facebook friends, explaining the causes of those feelings, and seeking friends’ response and support. For example, one participant used this approach in sending direct messages about their concerns to their supervisors, who are also Facebook friends:

I was really worried and concerned about something in my research. I then shared this feeling on Facebook saying - “I have a meeting with my supervisors today and I am scared – an important decision will be made today”. So, I purposely like to share my feelings with my supervisors, who are in my network, and tell them about my concerns. The first friend who commented on this post was one of my supervisors who said in funny way “Why are you scared? Are we scary?” When we met in person later, she asked me why I was scared, and we started a discussion about my research and concerns. (P4, SA)

The second method for expressing feeling on Facebook is through (the more common) indirect or implicit disclosure. For example, one can use Holy Quranic verse (God’s sayings), Hadith (a report of the deeds and sayings of Prophet Muhammad), poetry, story, or quotes to reflect feelings without directly explaining the exact feeling or its cause. Close friends, family members and relatives more frequently interact using this type of expression because they know each other very well and often do not require detailed explanations of a situation that is causing negative or positive feelings:

It is impossible that I directly post on Facebook about my negative feelings like sadness or feeling sick, but I might use poetries or religious quotes that reflect that...My family and real friends are the people who usually interact with me, and they know what I am suffering from. (P2, SA)

When I feel sad, I express my sadness indirectly by posting sad poems or song on my Facebook. (P7, SA)

Providing a story or a well-known quote is another (allegorical) way in which Saudi participants implicitly express their negative feelings on Facebook:

Sometimes I post sad statuses on Facebook as hints, without clearly stating problems. For example, a few days ago I posted “a PhD researcher is like when you are dropped into ocean and asked to swim until you find a land. You then swim until you find land, but you discover it is a whale, and the whale swims away and leaves you still swimming”. So the people who read and think about this post will figure out that I face some difficulties with my studies. My father was the first one who commented and prayed for me. (P4, implicit disclosure using allegorical story, SA)

“Nothing worthwhile – care for those who take care of you, leave those who left you, treat others as they treat you”. (P10, using well-known quote for expressing frustration with unworthy friends, SA)

Positive feelings can also be disclosed indirectly on Facebook by using poetry or a quote that shows an individual’s happiness, without the need to explain its causes:

When I feel happy I write a verse [Holly Quranic] or a quote that shows I am happy, but I do not explain exactly what causes my happiness. (P2, SA)

Some Saudi Arabian participants indicated that anonymity on Facebook could be associated with the expression of negative feelings. Indeed, most anonymous participants explained that hiding their identity on Facebook enables them to complain about their social and life issues without restriction:

We can say here what we believe, complain about our life, and express our feelings without any restriction or accountability. It is a vent for many of us; we can reveal things that we are scared to reveal in our real life. (P3, Anonymous, SA)

You can say the content that I post on Facebook always reflect my feelings and thoughts. For example, I have bad experiences with some friends whom I trusted and liked but who did not deserve that, and I write about that. Also, I write about “love”. Love is something nice and everyone needs it. However, it is illegal in our society and there are people who take it as a short game and are not honest in their love, ignoring the fact that they have sisters or daughters who might be in similar situations. (P12, Anonymous, complaining about bad love experience, SA)

5.2.4 Everyday Activities and Life-changing Events

Australian Participants

The qualitative data also shows that a large number of Australian participants disclose more about their everyday activities and life-changing events on Facebook in order to update, and communicate with their offline friends. They also generally believe that Facebook is a good record of personal daily activities, interactions and life-changing events, so that one's extended personal history can be easily traced, providing information to friends and other users (if the Facebook account is public). This type of disclosure on Facebook helps in bringing friends closer and making them more accessible to each other. It also puts information on record for the individual's own use in the future.

Facebook as my personal blog, to share all my life activities. (P115, Open Question, AU)

I use my Facebook as sort of a way for me to see what other people are doing and to tell people what I am doing ...I also use it to look back and see what I did like last year, and I feel like it is a good record of what I do in my day to day life. (P7, AU)

I disclose on Facebook mainly because I like to keep my family and friends up-to-date as to what is going on in my life. It makes me feel closer to them... (P4, AU)

Mostly, I'd say, I'm really just talking about different things that are happening in my life; that because my Facebook profile is set to sort friends only. (P3, AU)

Many Australian participants tend to use Facebook to disclose important and significant events (for example, completing a PhD), as well as small offline activities (such as content about cooking a dinner, favourite pets, or visiting friends).

I put stuff that happens to me like big deal stuff or even little deal stuff so that they can see what is happening in my life. (P2, AU)

...It is a good platform for sort of talking to people about some really big things that might be happening in your life like graduating events as well as the small things like cooking XYZ for dinner. (P4, AU)

Some Australian participants indicated that living or travelling away from family and friends is a significant motivator to increase their self-disclosure on

Facebook in association with their everyday activities. Under these circumstances, self-disclosure on Facebook serves as a tool of routine communication with remote relatives and friends, informing them about ongoing events, travel progression, and problems and difficulties (More details about living away from home and self-disclosure are discussed in section 5.3.2).

All of my dad's family are overseas, we are friends on Facebook, so I keep in touch with them, and I know what is happening in their lives. I probably spend more time talking to them on Facebook than I would in other ways. I put stuff that happens to me so they can see what is happening in my life. (P2, AU)

I know that my cousins, aunties and uncles [oversees family] like to know how my parents are and so when I am home working with my parents, I like to share photos of their life and of the property and everything that they look after. (P5, AU)

Information about personal interests and hobbies on Facebook is another source of disclosure of everyday activities, especially for Australian participants. This study suggests that there are two different ways of disclosing personal interests and hobbies on Facebook: (1) direct disclosure, by means of adding associated details to one's personal profile; and (2) indirect disclosure, by means of sharing related content during the routine use of Facebook (for example, by posting photographs of oneself pursuing interests and hobby activities such as fishing, gardening, knitting, or surfing). It is suggested that Australian participants are less likely to 'directly' disclose information about their personal interests and hobbies on Facebook. As one participant reports:

Well I have not looked at that section [personal interests] for years; I do not think that I actually filled that section in. (P5, AU)

However, it appears that Australian participants are more likely to disclose this information through indirect disclosure by posting content that reflects personal life interests and hobbies.

If you sat down and looked at photos that I posted or comments that I make, it will tell you what my interests are and my likes, dislikes, and hobbies...I really like gardening, so I will often post stuff about what I am doing in the garden. (P3, AU)

It [interests] will certainly be apparent from the posts that are on my personal page. So if you look over there, you will know that I was interested in knitting, fishing and reading books. (P6, AU)

I share a lot of stuff that is quite sarcastic. I am pretty sarcastic and obviously because I share stuff that interests me. I share a lot of stuff that is about art...I think most people would say that my Facebook page is reflective of who I am and what I am interested in. (P2, AU)

Saudi Arabian Participants

Saudi Arabian participants seemed less likely to use Facebook to update friends about detailed everyday activities and events. Typically, they believe that people should only share significant, exciting or important life experiences and events.

I am less telling about my life happenings and activities on Facebook like saying today I did this, or I went to that place. (P2, SA)

I do not update my daily activities on Facebook. I might do that one time a month. I do not share such things like “I am eating a pizza for lunch”. Rarely, I share what happens in my life, and if I do, those should be important things such as engagement, marriage, or if I or any of my friends get new baby. (P1, SA)

I share my life activities when they are exciting and interesting, such as travelling activities or unusual experiences, and because I do not have that many significant activities, I am less likely to share about my life. I am not that person who posts on Facebook that he bought a cup of tea or a sandwich...Few weeks ago, I got to know on Facebook that one of my friends got married – he posted some photos about his wedding ceremony. (P8, SA)

Saudi Arabian participants report two key reasons for inhibiting the sharing of too much information about life events and changes. One is a concern about oversharing, with many participants indicating that oversharing personal activities on Facebook has a significant potential to annoy those who believe that users should only share information that is of value and benefit to friends, rather than useless and

boring details. Daily updates about life activities are typically regarded as oversharing and annoyance, with over-sharers' news being largely unfriended or unfollowed by other users.

The oversharing is annoying for me. People should post important and useful things, like posting about a trip to a specific city. This is important and will benefit me by giving me ideas about that city, or when you were in a party, this is an exciting event. But posting when you do shopping or buy things from a market will not benefit me and constitutes useless information. (P6, SA)

It is oversharing when we post every minute about things we do...and I undertake with regard to these people is not to unfriend, but rather remove them of my news feed, and hide their updates. (P6, SA)

There was one over-sharing friend and, when I browsed my Facebook, I used to find most of the news section being updates from this person: what he was doing, where he went etc. I found myself unfriending him because he presented a source of noise for me. (P5, SA)

The second key reason for inhibiting the sharing of too much information about life events and changes – especially positive ones – is the fear of one being affected by envy and attracting the ‘evil eye’. Many Saudi Arabians believe that sharing important positive changes in their lives with friends who do not have the same benefits and/or success might lead to being envious by their friends (or affected by the evil eye). The result is bad luck and a loss of the good given (more details about evil eye are discussed in Section 5.5).

Many Saudi Arabians do not share about their travelling activities on Facebook. They believe that people will envy them because they travelled and enjoyed themselves, and thus cause ‘evil eye’. (P1, SA)

One story happened to me with my PhD study. I was working hard to complete the confirmation document. I stayed 3 days at school and went to my home just for sleeping. I updated these things on Facebook. After that, I lost the file that I was working on, and most of the changes were not saved. I look for the file everywhere, but could not find it. Then I posted on Facebook “after 3 working days the file disappeared and most of the changes are lost”. Then one of my close friends called me and said: “Be careful with what you share. Not everything can be said on Facebook, especially the things that cause evil eye like working 3 days full time on your research”. (P4, SA)

With regard to personal interests and hobbies, Saudi Arabian participants seemed to employ both the direct and indirect ways of disclosure. Many stated that they have significant amounts of information about their personal interests and hobbies on their profiles (direct disclosure). This informs their current and potential friends about the things they like and are interested in, and helps them to start conversations with their current friends, to send messages to potential online friends, and to develop new friendships on the basis of common interests. They also generally update their status with offline activities and events that indirectly reflect their interests and hobbies.

I update my profile with many movies that I watched and liked. I added a series of my favourite books. I also like to write and read poems and I mentioned that on my profile...When I add people whom I do not know in real life, I often browse through their profiles first and, if there are interests in common, I send friendship requests to them. The same thing happens when I accept friendship requests. I added one of my friends because she was interested in performing traditional songs and poems, called Enshad, which I like. Our relationship developed quickly and we have done a lot of 'Enshad' work together. As another example, by listing series of movies that I've watched or books that I've read, I've been able to start discussions with my friends who had already watched those movies or read those books – so we used them as a starting point for discussions. (P2, Direct self-disclosure, SA)

Photography is my personal interest, and I use Facebook to connect with people who are interested in photography, so that to further develop my photographic skills ... Therefore, my profile mainly reflects this interest and most of my content is about it. (P8, Mostly indirect self-disclosure, SA)

5.3 MAINTAINING OFFLINE RELATIONSHIPS

5.3.1 Strong Ties v Weak Ties

Australian Participants

It is suggested that Australian participants are more likely to use Facebook for maintaining strong ties, such as with family members and close friends. They generally perceive Facebook as a personal space that should be accessed only by 'real' friends or family members, rather than by mere peers or acquaintances.

The half of my Facebook friends would be close family. The other half would be close friends...I am a friend with my niece but not with her husband. I am not particularly close to him as to his wife; the people that I am friendly with I know too very well. (P1, AU)

Anyone that I am talking to on Facebook I consider to be a friend in my real life, not just a peer and not just a colleague. (P3, AU)

Interestingly, some of the Australian participants also stated that they update their friendship list and unfriend the people with whom they do not still have strong connections, and with whom communication has thus been weakened (such as old school and/or work acquaintances). This also supports the claim that Australian participants use Facebook more for maintaining strong offline relationships.

I have kept basically people whose lives matter to me and who I am interested in, I do not keep people like school acquaintances who I did not get along with, I do not keep those. I have deleted most people from school because they are not a part of my life anymore and their lives do not interest me. We do not care about each other's lives, and no point having them there. (P5, AU)

Quite often I reject some friendship request even I know them. Sometimes I've had friend request from people who I went to school with or something like that and unless I really feel I want to reconnect with them, I ignore the friend requests. (P3, AU)

The relationship between self-disclosure and the maintenance of offline relationships on Facebook is well recognised among Australian participants. Such offline relationships, especially the strong offline ties, are noted to be a strong motivation for them to self-disclose on Facebook without concern or hesitation, as such close friends are less likely to misuse their self-disclosure.

People who disclose much of personal information on Facebook are only friends with people they know well in person, so is a valid reason to share a lot of personal things. (P219, Open question, AU)

There are only 3 people in my 110 people friend list that I have not met in person and even I have spoken to for years online. I feel comfortable sharing information about myself. If people have a lot of impersonal business associates or strangers on their friends list, of course they do not want to share things about the self. (P40, Open question, AU)

Saudi Arabian Participants

While Saudi Arabian participants use Facebook to maintain strong ties, they also use it more to connect with weaker ties, such as childhood friends, co-workers, people from their home cities, neighbours, and people whom they have met at various social gatherings, but with whom they rarely associate. It can be generalised that for the Saudi Arabia participants, being recognised offline or having met physically is a valid reason to be friends on Facebook.

Many of my friendships on Facebook originally existed in my real life, including some school friends, people from my home city, neighbours, and people who I met in different social gatherings. My brothers and many of my tribe members are also in my Facebook. Facebook also helps me to reconnect with old friends. After I graduate, I did not meet many of my high school and university friends; but I still have them in my Facebook network. (P5, SA)

I have friends from my current school, high school, my tribe, and the place where I live. So, if I know these people in real life, they can be my Facebook friends. (P8, SA)

I use Facebook to search for some of my old friends who I lost the contact with and don't get to see for long periods of time. (P11, Open question, SA)

5.3.2 Maintaining Long-distance Relationships

Australian Participants

The use of Facebook for maintaining long-distance relationships, either interstate or overseas, was acknowledged by the majority of Australian participants. They largely see Facebook as the most convenient method of connecting with remote family members and friends, due to its ability to record their activities and make them available to desired friends at any time. Further, some give priority to connecting with Facebook friends who live farther away.

I only use it to keep in touch with folk who have moved far away so I can have a sense of their new life. (P82, Open question, AU)

I am interested in Facebook purely because it allows me to stay in contact with my proper friends and family living around the world (I have lived in 4 different countries). (P176, Open question, AU)

I do not think I have any friends [on Facebook] from Brisbane, because the close friends I have in Brisbane I keep in contact with face to face or via phone. (P1, AU)

To many of the Australian participants, Facebook has largely replaced traditional methods of communication with remote family and friends, such as letters and telephone conversations. Facebook is certainly a much faster, more convenient, and cheaper means of communication than other methods. Another significant advantage of Facebook with regard to remote communication is that it does not require immediate mutual communication (as the telephone does); rather, it allows messages and images to be uploaded online for subsequent observation and possible response by the other communicating party at their convenience. This enables many Australian participants to stay particularly close to their family and friends, even during extended absence or travel.

I wouldn't have contact with them [overseas family and friends] otherwise...I have never written a letter to anyone in I reckon 15 years so I think without something such as Facebook, I would have lost touch with those sorts of people. (P3, AU)

It [physical letters] is just so out dated now, so now we keep in touch on Facebook. It is like no time had passed because we have been keeping in touch over Facebook for the last years. (P2, AU)

They [family and friends] live in another country, and that's how I communicate with my family. The phone gets that expensive so and Facebook is free. (P4, AU)

Furthermore, having overseas connections on Facebook motivates many Australian participants to self-disclose more to keep their overseas friends abreast of their life events and changes, and to mitigate the lack of a physical connection.

It [having overseas family] does motivate me to share on Facebook mostly because I like to show them what's going on our life. (P5, AU)

I live 3000km from many of my friends and all of my family - this has encouraged me to share more, show what where I live is like, others are much closer/different attitudes. (P241, Open question, AU)

I personally use Facebook more than I do because I study abroad and I am sharing a lot of images and thoughts to keep in touch with people I won't be able to see again when I leave. Generally at home, I wouldn't be so active. (P258, Open question, AU)

Saudi Arabian Participants

The analysis of the Saudi Arabian qualitative data did not reveal the Saudi Arabian participants' use of Facebook to maintain long-distance relationships.

5.3.3 Maintaining Tribal Relationships

Saudi Arabian Participants

Tribal relationships are one type of offline relationship that most Saudi Arabian participants maintain on Facebook. They generally consider Facebook as a method of connecting with tribe members and building an online tribal community or 'group.'

I usually send a friendship request to people who belong to my tribe. I also joined a Facebook group for our tribe. (P5, SA)

I have tribal community on Facebook that only limited to my tribe members, and named by its name. (P6, SA)

We have a special group on Facebook for my clan. (P2, SA)

The qualitative analysis also indicated that using Facebook to maintain relationships with tribe members is an encouragement for more self-disclosure, including the discussion of tribe-related issues, the exchange of information about personal events and changes, and providing opinions and mutual support.

[Using the tribe group on Facebook] To discuss issues related to our tribe, to interact with its members, and being updated with events and changes that occurs in their lives. I also use it to update them with things that happened in my life or that might be interesting to them. (P5, SA)

This group [tribe] is used to discuss social issues related to our tribe and its members and to exchange information about important personal events like graduations, wedding plans, participating in races, etcetera. Before I joined this group, I missed many updates about my tribe and its members. (P6, SA)

Australian Participants

Connecting with tribe members or creating online tribal communities on Facebook was not suggested by any Australian participants.

5.4 INITIATING NEW RELATIONSHIPS

Although people mainly use Facebook to maintain offline relationships, it is also a platform for new relationship formation. This view was acknowledged by most Saudi Arabian participants who indicated that they welcome legitimate random relationships on Facebook. They also reported that the benefit of forming new relationships leads them to self-disclose more on Facebook. Most Australian participants, however, strongly opposed this view, believing that new relationships should start offline, and then move to Facebook.

I usually accept new friendships on Facebook, except from impolite people, like those who have pornographic photos on their profile. (P8, SA)

If it is just a random person then I will not accept them. (P7, AU)

5.4.1 Facebook as a Platform for Overcoming Social Life Restrictions

Saudi Arabian participants generally perceived Facebook as an effective platform for forming desirable relationships that might be restricted offline. Three main Facebook features that enable Saudi Arabian participants to overcome the many social life restrictions that prevent them from forming desirable relationships offline were reported. These features are the provision of a virtual meeting space; the opportunity for anonymity; and the provision of a mutual interests' space (that is, the ability to connect with people who share similar interests).

Facebook as a Virtual Meeting Space

This feature is more likely to help in overcoming the gender segregation restriction in Saudi Arabia. Offline, there are certain restrictions with regard to meeting and interacting physically with a non-Mahram (marriageable kin) member of the opposite gender, even if he or she is a close relative. Because of the lack of physical interaction on Facebook, such meetings and relationships are more common and acceptable, as reported by many Saudi Arabian participants.

Facebook made the communication with the opposite gender [females], who are not mahram [marriageable kin], is easy after it was like impossible in real life. (P4, male, SA)

Facebook provides me with a great chance to discover and learn about the opposite gender [male], and that cannot be happened physically. I now kind of have ideas about how males think, and what they like, dislike, and believe about us. [females]. (P10, female, SA)

Saudi Arabian participants might not only use Facebook for virtual communication with the opposite gender, they might also use it to facilitate romantic and marriage relationships. Due to the gender segregation rules in Saudi Arabia, it can be difficult to form romantic relationships offline, and such relationships are regarded with suspicion. Therefore, Facebook can be seen as an alternative place for meeting and forming such relationships with fewer social restrictions.

I have many relationships with the opposite gender on Facebook. One of these developed into a romantic relationship and plans for marriage...I know many friends who found their partners on Facebook and they got married and are now having children. (P2, female, not anonymous, SA)

Facebook has been used by many Saudi Arabians to build romantic relationships; that's because boys and girls in Saudi Arabia have less chances to meet face to face like in other countries. Facebook helps them to meet and discover the opposite gender. (P6, male, SA)

One of my friends [girl] was interested in a man. She friended him [on Facebook]. Their relationship developed and they got married and have kids now. It becomes common in our community for people to find their partner through Facebook, which has less social risks. (P1, female, SA)

Connecting with the opposite gender was not mentioned by Australian participants as a motivation for forming new relationships on Facebook, including romantic relationships.

Opportunity for Anonymity

The ability to hide one's real identity on Facebook enabled many Saudi participants to build desired relationships that could not be formed offline in their real identity. For example, many tribes in Saudi Arabia are less accepting of women's use of the Internet, especially OSNs (even with their lack of physical contact). Such use creates many social risks for women, including social disapproval (More details are discussed in Section 5.8.2). Therefore, the ability to be anonymous on Facebook enables many female participants in Saudi Arabia to mitigate this pressure by joining Facebook and creating desirable connections that have a low offline risk.

I use an anonymous name on Facebook and I usually reject any friendship requests from people I know personally...If I cannot hide

my identity, I will not be on Facebook. (SA, anonymous female, P11)

Anonymity on Facebook also helps in creating virtual communities that lack offline contact expectations. In other words, it enables individuals to ‘escape’ from offline communities, and to create their own virtual communities where people can freely self-disclose and complain, with fewer negative consequences in their offline lives.

I believe many of Facebook users try to escape their real community to a virtual community that excludes all real friends, to freely share and disclose about their selves. Using different names and details on Facebook help on that. (SA, open question, P50)

Forming relationships with a view to illicit sexual relations is another reported example of the use of Facebook anonymity in this study. Where such relations are strongly forbidden and restricted offline, Facebook anonymity helps to generate such contacts, with less likelihood of associated offline risk.

I think people who hide their real identities on Facebook have negative purposes. I have story with unfriended person who use fake name on Facebook, and was looking for making illicit sexual relation with me. This kind of users is very suspicious. (P2, female, SA)

[The reason behind anonymity on Facebook] *for achieving desired relations with the opposite genders, most of them are illicit sexual relations.* (P5, male, SA)

Usually the users who use anonymous account are men who chase the women to create illicit sexual relationships with them. The anonymity gives them the chance to do what they want without fearing of being criticized by others. (P210, open question, male, SA)

Hiding one’s real identity to for the purpose of forming new relationships on Facebook was not acknowledged by Australian participants.

Facebook as a Mutual Interests’ Space

Many Saudi Arabian participants acknowledged that the ability to form relationships with people who share mutual interests on Facebook is one of the main motivations for forming new online relationships. While there is no specific restriction (especially among members of the same gender) against forming

relationships based on mutual interests offline, relationships based on blood and shared location are the most common and recommended in the Saudi Arabian culture. Thus, to many Saudi Arabian participants, Facebook is the platform where they can more broadly encounter people who share their interests, rather than being restricted to those who happen to be in their same physical location or tribe. Participants also revealed that, in many cases, these relationships extended to the offline realm, with regular offline meetings and interactions related to their interests.

I mainly use Facebook to connect with people who are interested in photography. I am now working on creating an effective photography community for our home city on Facebook. (P152, Open question, SA)

I added one friend because she was interested to 'Enshad' [traditional singing] like me... Our relationship is significantly developed and we have done a lot of 'Enshad' together. (P2, SA)

I joined a group on Facebook that connect overseas Saudi Students, where we can exchange experiences and advices. I formed many personal relationships from this group, and met some of them face to face too. (P6, SA)

Most of my new friends on Facebook are people who belong to the same groups that I am interested to. We share similar interest and passions; we interacted many time in these groups and we discuss many topics; then the relationships developed to be a friends on Facebook. (P3, SA)

Unlike the Saudi Arabian participants, Australians participants are generally less likely to use Facebook for finding online friends who share similar interests. They believe that connections with people who share mutual interests should first be made offline, and then move to Facebook.

I do not search on Facebook for people who I did not know before and have mutual interest with me. Most of friends who have mutual interest with me are people from university. So people just doing my course who I have spoken to. (P7, AU)

I have got only one group that does not comprise entirely of my friends and that one is for a conference, to keep in some kind of touch with people who I met at the conference but I have not friended them. (P5, AU)

5.4.2 Sharing Mutual Friends

While the majority of Australian participants reported that they are less likely to accept friendship requests from strangers on Facebook, some indicated that they might do so if there are existing mutual friends (that is, people who are friends with both users). They considered that mutual friends could be a ‘pre-requisite’ for forming such relationships. As suggested by one Australian participant (P3), sharing mutual friends with a person who is not a friend on Facebook is like having an indirect relationship with them, because both have significant opportunities to communicate and interact when they comment on their mutual friend’s posts.

We both shared a mutual friend and I noticed that we were often both commenting on that friends post. So it was kind of like we came to know each other we sort of joke with each other within the comment strain on the friends page, we eventually did become friends. (P3, AU)

If it is somebody that has a lot of mutual friends with me and they are legit person then I’d accept them. (P7, AU)

I will see who are mutual friends are first and then I will check them out a bit and then decide. (P2, AU)

5.4.3 Perceived Loneliness

Many Australian participants claimed that loneliness and a lack of real face-to-face relationships encourage people to form new relationships on Facebook as a means of offsetting their offline loneliness. It is also suggested that lonely people who join Facebook to ameliorate their loneliness are more likely to self-disclose.

I am a single mum of a little boy with special needs. We spend all day indoors out of the sun. So the only interaction sometimes with other human beings is on Facebook, so I kind use it like my diary sharing a lot maybe sometimes too much lol but it is an outlet for me, otherwise life would be pretty lonely (P260, open question, AU)

Everybody needs to have a friend, so if they cannot get friends where they are, they will seek it somewhere else and Facebook is a community where they will go to because it is easier to make friends. (P4, AU)

People who lack real face-to-face relationships seek that interaction online (P85, open question, AU)

With the Saudi Arabian sample, however, loneliness was not acknowledged as a motivation for building relationships on Facebook. For example, one of the Saudi participants stated that:

I friended many people on Facebook not because I do not have friends on my life. I have big community who like me and I like them. I have many close friends and relatives. (P10, SA)

5.5 SELF-PRESENTATION

Australian Participants

The act of self-presentation through sharing achievements and successful news on Facebook was acknowledged by the majority of Australian participants. They indicated that they do so to inform their offline friends of their strengths, and to share their happiness. They also explained that such sharing leads to more interaction with friends, and helps to maintain their excitement.

I use Facebook to present a positive public image of myself to a small number of family, friends and colleagues. (P58, Open Question, AU)

If I have anything that I am proud about, I would like to share it with my friends on Facebook. When I share such things they will know I am very happy at that time, and my life is going stronger. (P4, AU)

I am more compelled to reveal something that I feel as an achievement and that I am proud of. It [Facebook] can be looked at as a news sharing space and so you share personal news for the things that matters to you personally, and like friends to recognise. (P5, AU)

I think it [sharing successes and achievements on Facebook] makes the excitement last a bit longer, because someone liked it and then you go away and 2 hours later, a few more people would have liked it and you are like, "oh yes, that happened to me, that was exciting". (P7, AU)

Saudi Arabian Participants

Unlike their Australian counterparts, most Saudi Arabian participants reported much more resistance to presenting themselves on Facebook by sharing news related

to their accomplishments and successes. The most common reason given was the fear of being affected by the ‘evil eye,’ which is associated with bad luck, injury, illness, and a loss of the good that has been given. Offline, this fear is widespread in Saudi Arabia, and is now also embedded in online Facebook society.

In real life, Saudi people do not like to talk about their achievements and success fearing of the envy that causes the ‘evil eye’ influences... Similarly, on Facebook they apply their belief and perception about the evil eye; avoiding sharing such things. (P1, SA)

I believe by the evil eye, it is fact as mentioned by the Prophet Mohammad peace upon him... for this reason I and most of Saudi people do not share their successes and achievements on Facebook. (P5, SA)

One story happened to me with my PhD study. I was working hard to complete the confirmation document. I stayed 3 days in school, just went to my home for sleeping. I updated these things on Facebook. After that, I lost the file that I was working on, and most of the updates were not being saved. I looked for the file everywhere, but could not find it. Then, I posted on Facebook “after 3 working days the file disappeared and most of the works lost”. Then, one of my close friends called me and said “be careful with what you share, not everything can be said on Facebook, especially the things that cause the evil eye like working 3 days full time on your research. (P4, SA)

They [people who do not share about their selves on Facebook] might be fear of envy and evil eye”. (P154, Open question, SA)

Facebook became like a real life society, so my mother always reminds me not to share favourable things about me fearing of the evil eye, like when I offered scholarship from government or awarded from school, she clearly asked me to not say that on Facebook. (P2, SA)

Besides the fear of the ‘evil eye,’ all anonymous participants also indicated that they purposely hide news related to their achievements and successes from Facebook in order to remain anonymous and avoid being identified.

I never reveal information that helps in identifying who I am; such information [achievements and successes] is one of the details that I hide. (P9, SA)

5.6 RECIPROCITY

Reciprocity on Facebook was clearly reported by many participants from both Australia and Saudi Arabia. Participants believe that receiving reactions to their content from others (for example, ‘like’, ‘comment’, ‘share’) makes participants feel appreciated. It also makes them feel obligated to reciprocate through similar interactions.

Definitely, I try to reciprocate. If somebody has made comments on my posts then I will maybe look at their stuff that they put up instead of just skimming over it, yes there is an element of reciprocity there especially when it is interested things. (P2, AU)

It sort of like you provided me with feedback therefore I would like to provide you with feedback too. (P5, SA)

In our cross-cultural comparison, reciprocity in Facebook was considered very important in Saudi Arabia compared to Australia. Saudi Arabian participants were more likely to see it as part of social courtesy, support, etiquette and politeness.

It [reciprocity] is like a social courtesy and social support; as you support me I have to support you. (P4, SA)

Interacting with a person’s content on Facebook like doing a favour for them. Therefore, I strongly believe this favour should be given back, even if the posted content is not that interested. Facebook reflects our real personality and how we deal with others; so, it is unfair to not interact with a person posts whose usually interact with us. (P1, SA)

Furthermore, some of the Saudi Arabian participants noted that they purposely visit some of their friends’ profiles to interact with their content. These friends are the people whose usually ‘comment on’ and ‘like’ their content, and the norm of reciprocity and feelings of obligation to return the favour is the motivation for such interactions, and emphasises the importance of reciprocity to Saudi Arabian Facebook users.

If I could not see their posts [people who usually interact with their post], due to the large number of friends and their associated posts to my timelines, I usually browse their profile, find what they do and interact with them. (P2, SA)

If it was someone that I have not seen in a long time and they usually like something I did, I will click their profile and see what they were up to and I will probably like or comment on something. (P5, SA)

A negative relationship between reciprocity and network size was suggested, where having a large number of friends in Facebook reduces the rate of reciprocity. This is because large numbers of friends result in a large amount of content, and reciprocity for all friends becomes difficult, requiring much time and effort.

I probably could not reciprocate to 300 or 400 people on Facebook in the same way that I may reciprocate to those 70 people that are on my Facebook friends. I would not have time to sit through all that news feed and see everything sort of what people has posted so yes I supposed that's around the size of my network that influences that. (P3, AU)

I have large number of friends and a lot of stuff on my feed and that makes it hard to read and interact with everyone post. (P2, SA)

5.7 PRIVACY CONCERNS

Two types of privacy concerns on Facebook were reported in this study: 1) threats that come from outside a participant's network of friends – stranger danger; and 2) threats that come from inside a participant's network of friends – friend danger. While there was some cross-cultural overlapping of the two types of concerns, Australian participants were generally more associated with the first type of privacy concern, and Saudi Arabian participants with the second.

With the first perceived privacy threat, participants are more concerned that strangers and people whom they do not know and trust in real life (offline friends) could find their information and misuse it in an unforeseen way. Such misuse might include identity theft, cyberbullying, unsafe data collection, and rejection by future employers. In the second threat, participants are more concerned that friends whom they know well in real life (offline friends) could encounter personal content that is socially unacceptable or inappropriate. This, in turn, could lead to stigma, social disapproval, and damage to their reputation.

5.7.1 Outside Network Threats – Stranger Danger

Identity Theft

Identity theft is one of the main concerns acknowledged by the majority of Australian participants, who highlighted the simplicity of duplicating someone's

identity based on their Facebook profile details (including name, photo, birthdate, and current place of residence). Australian participants also generally noted that their concerns about identity theft negatively influence their disclosure of more personal and identifiable information on Facebook. They suggest that such identity theft occurs more in public spaces such as Facebook, and is more likely to be the work of people whom they do not know well, and who are outside their list of Facebook friends.

Perhaps they [people who self-disclose more] don't realise how easy it is for strangers or other people to find and view your content on Facebook. I do not put a lot of stuff on Facebook because I do not want people to steal my identity. There are identity thieves there, and I am very concerned of that. (P4, Have private profile, AU)

Very quickly build a false identity over on somebody based on how well the information they can harvest on Facebook. You know, pick up the name, the photograph, date of birth. Generally what in the point of location they live and there are all sorts of ways like this of extracting information when you start to build a profile about a person using more of data creating your identity. Therefore, I try to avoid putting on Facebook anything that will reveal and allow that to happen. (P1, Have private profile, AU)

Most Saudi Arabian study participants reported fewer concerns with identity theft, and seemed to have a greater tendency to publically disclose a lot of personal and identifiable information on Facebook.

Providing this information [phone number, email, address and birthday] publically does not concern me...I am not worried about identity theft. (P5, Have public profile, SA)

From 2006 until now, I have not had any concerns of providing this information [contact details and birthday] on Facebook. (P4, Have public profile, SA)

Cyberbullying

According to many Australian participants, cyberbullying is another suggested privacy concern associated with disclosing personal information on Facebook. Such

a concern can negatively affect their tendency to self-discourse, and they are ever vigilant in protecting their information from strangers.

Facebook is a gate crasher at parties and cyberbullying. (P149, Open question, AU)

There is once years ago an occasion where somebody contacted me on Facebook and mentioned my mom and said “you are the daughter of that horrible woman”, because my dad has been divorced before and is married to my mom now and that was 35 years ago. I disliked that is going to happen too so I like to have it as private as possible so that I know who can see and access my information and I spent a long time logging off, Googling for myself and just seeing what you could tell. (P5, AU)

Many of my friends who have teenage children were worried about cyberbullying happens. Usually, when they signed up less than 18, mom and dad will say we want to be a friend on your Facebook, to see what is happening there. (P3, AU)

In the Saudi Arabian sample, the concern about cyberbullying activities as the result of disclosing too much personal information on Facebook was not clearly acknowledged. One of the Saudi participants reported that there are many Saudi teenagers, who are less than 18 years old, and who use Facebook without the supervision of a mature person or family member. This participant believes that the lack of supervision exposes them to privacy risks, including cyberbullying, because they are less aware of the potential risks of such a space.

There are many teenagers in Saudi Arabia who aged between 12-16 years use Facebook without being monitored by older people of their family. These users are more likely to face risks from stranger such as sexual harassment or receiving embarrassed content. (P2, SA)

Unsafe and Permanent Data Collection

Concerns over the unsafe collection and permanent storage of personal data by Facebook and other third parties is another privacy issue that is noted by many Australian participants. They believe that Facebook is collecting their information, and could share it with third-party organisations without their permission. Some Australian participants also indicated that deleting content from Facebook does not permanently erase it from the online space. Thus, where personal views and opinions might change over time, one’s original thoughts remain on Facebook and with other

interested parties. Therefore, they believe that limiting self-disclosure on Facebook might be the safest way to avoid future regrets.

I don't fully trust Facebook as anyone can have the ability to access and store any and or all of my information whether I give them permission or not. (P85, Open Question, AU)

The people I see "oversharing" on Facebook just don't think they understand how permanent information on the internet is. (P27, Open Question, AU)

Everything you put up on Facebook belongs to Facebook, and it takes a very long time to delete everything. People I know who have deleted their Facebook told me. So I do not believe that you are the sole owner of it anymore, and there is a great potential for it to be used for other purposes which you did not intend. (P5, AU)

I am aware that Facebook owns everything I post, and it stays there forever, and features such as Timeline allow anyone to view posts you made 10 years ago (your opinions, and social/political/religious groups may have totally changed in that time). (P209, Open Question, AU)

It is doubtful whether when a post is deleted, it is fully gone. Shutting up now and keeping messages private saves me the headache of 5-10 years down the track looking at irrevocable posts reframed or trawled up by people. (P351, Open Question, AU)

In the Saudi Arabian sample, participants did not note any concerns about the collection of personal information by Facebook or any third parties.

Facebook's Public Nature

The public nature of Facebook can generally increase privacy concerns for Australian participants. Many of them perceived Facebook as a public space, even if it is viewable by 'only friends', as strangers and unwelcome people can easily see their personal content. This is because the published content can be easily copied, emailed or shared by friends to their friends' networks, or to the public, without their permission. Furthermore, software has been developed to enable the accessing of personal content and, therefore, the violation of users' privacy. Thus, they believe that such a public space as Facebook is a risk to them and their information, and this belief was suggested to negatively influence their self-disclosure.

Sometimes I do not comment on certain posts because of privacy, which will make my comment public to unwanted people. Once it is

online, I have a less control over how personal it remains even if I choose to share only with friends it does exist in cyberspace therefore it is not really private. (P5, AU)

As much as I lock my profile down, you still put information at the World Wide Web, the public space; so it can be viewed by someone else. Also, someone that you are friends with can still share your Facebook page to someone that is not a friend of yours. (P3, AU)

In Saudi Arabia, concerns about the public nature of Facebook were not considered by Saudi Arabian participants. Indeed, some Saudi Arabian participants perceive the public nature of Facebook as a distinctive advantage, where they can interact and communicate with a large number of people.

I changed my profile setting to be public, and purposely added my information to tell people who I really am, especially as there are many people have the same name as me. (P2, SA)

Current or Future Employment

Issues relating to privacy and employment were acknowledged by many Australian participants who claimed that a future employer might check their internet presence, especially Facebook, before offering them a job, and that inappropriate content might cost them any potential job offers. Many also reported that such concerns lead them to control their privacy more actively, by limiting self-disclosure, and having their profile visible to friends only.

I limited my profile to only my friends for job purposes. So people like my bosses or my future employers cannot see anything about me. You don't really know what they might consider appropriate or not appropriate. (P7, as job seeker, AU)

Posts will remain attached to your account long after they are gone, and it is doubtful whether when a post is deleted, it is fully gone. In the past there have been stories of employers checking Facebook pages of potential employees which could be negatively affected by posts you have written in the past. (P231, Open Question, as job seeker, AU)

People who don't share a lot of information realise the bad outcome that could occur such as when looking for a new job the employer may find your Facebook page and employ you or not employ you because of the contents. I choose to share very little private information because I am studying to be a primary school teacher and I don't want Facebook to be used against me. (P165, Open Question, as job seeker, AU)

If I was employing somebody I did not know, I would do a Google search and if they came up on Facebook, I would have looked at it, and there are people I would not employ based on what I saw there. (P1, as employer, AU)

Saudi Arabian participants, on the other hand, did not mention this concern. Furthermore, when some were asked about the relevance of such a concern to them, they emphasised that employers in Saudi Arabia did not use such strategies.

I do not think that the employers do a google search about the potential employees or check their Facebook account. This strategy of employment is not applicable there. [Saudi Arabia]. (P6, SA)

We did not hear yet that someone rejected of getting job because the employer was not happy with their Facebook. (P2, SA)

5.7.2 Inside Network Threats: Friend Danger

Blackmailing

The majority of Saudi female participants reported that blackmailing, which has become more common with the increased use of Facebook, is one of their main privacy concerns. They are concerned about people obtaining their confidential content, such as personal photos (more likely of a sexual nature), and threatening to disclose it to their offline communities and others unless they respond to blackmailers' demands. Blackmailers can thus create social stigma for the victims and their families.

It happened many times in our society like girls formed romantic relationships with boys who got some private information about them like personal photos and real name; and after a while the girls do not like to continue this relationship, then boys start blackmailing them asking to do what they want otherwise they will damage their reputation and share this information including photos to public. (P7, female, SA)

I am really concerned of being blackmailed; I am a girl and finding any personal information about me might cause this issue. We have heard many times that some girls got blackmailed and harassed by men, they got some real and personal information about them and asked them to do what they want or they will disclose it publically. (P12, female, SA)

Australian female participants, however, did not report a concern with blackmailing on Facebook; nor did they acknowledge it as a common occurrence.

Social Stigma

Most Saudi participants reported that they would be concerned if their offline friends were to see any of their private Facebook content that was socially unacceptable and capable of causing social stigma. Such unacceptable content includes evidence of mixing with the opposite sex, drinking alcohol or being in bars, women not wearing the hijab, or the sharing of pornographic content.

Furthermore, it was reported that harming personal reputation is their major privacy concern. It was also indicated that the person's reputation might also be unintentionally damaged by their Facebook friends, who might tag them in socially unacceptable content. This could especially be the case for friends who are not familiar with Saudi culture. Such concerns and associated consequences can negatively affect their self-disclosure and sharing activities.

Our society is very strict and sharing content that is not socially acceptable harms the person's reputation, and that is my major concerns. I shared photos about my friend birthday party outside Saudi Arabia, which showed me with some girls and others drinking alcohols. I was strongly criticized by my family and relatives for that. (P8, male, SA)

I am concerned about that more than any other privacy risks. It happened to me that I shared photo shows me with males in work gathering; the response and consequence was very bad. I got criticized by my relatives for that and I decided not to do it again. In our society the girl reputation is more critical and easy got destroyed. (P1, female, SA)

The reputation for many people was damaged by Facebook. For example, they got tagged by content that show them drinking alcohols or dancing with girls. People concenter such thing as scandal and shameful. I know many people had this scenario. (P4, male, SA)

My Facebook had been hacked by someone who posted that I am homosexual, and changed my interests to sexual things etc. This act really frustrated me and affected my reputation. (P5, male, SA)

We live in curious society, where people mind other people business. Therefore, I do not share much about my life on Facebook, that because there are others who search for your weakness aiming for calumny and damaging your reputation. (P152, Open question, male, SA)

Concerns about damaging personal reputations were not acknowledged in the Australian sample.

Social Disapproval

Many Saudi Arabian participants indicated that they have some concerns about social rejection or disapproval as the result of posting personal content on Facebook that is inconsistent with friends' views or beliefs. They also reported that such concerns made them generally mindful of their friends' responses and perceptions before they self-disclose.

You might be disapproved or rejected by friends when you disclose things that against their beliefs. For example, one of my friends supports the revolution in Syria and clearly presents his support on Facebook. He got in conflict with other friends who against the revolution, and their relationship in real life affected as well. (P6, SA)

Sharing personal beliefs and thoughts on Facebook might negatively affect your relationships, even the close relations, when they are not agree with their beliefs. (P257, Open question, SA)

I joined a group on Facebook, and this event appeared in my timeline. One friend was not happy with that, and commented: "do you believe by this group". After that I became more conservative, always think about my friends responses before I post. (P2, SA)

The fear of criticism or judgment is the reason behind not sharing on Facebook; especially we live in a very conservative society. (P279, Open question, SA)

5.7.3 Privacy Protection Strategies

Australian Participants

Limiting Profile Visibility

All Australian interviewees altered their profile visibility to 'only friend', thus limiting access to authorised people only. Such visibility restrictions were the most common strategy used to protect their privacy from strangers and unwelcome audiences.

My privacy concern has made me make my Facebook private, not everyone can see it. So I think that is probably the best I can do as control barrier. (P7, AU)

While some Saudi Arabian interviewees set their profile visibility to ‘only friend’, others made their profile public and accessible to all Facebook users. These findings suggest that limiting profile visibility to predefined users or groups is not a major privacy protection strategy for the Saudi Arabian participants. Interestingly, one of the Saudi participants purposely changed their profile visibility from ‘only friend’ to ‘public’ to be able to share content with a larger audience.

I changed my profile setting to be public, and purposely added my information to tell people who I really am. (P2, SA)

Friending Only Real Friends

Another reported strategy that Australian participants were more likely to use to enhance their privacy control was to friend only real friends; that is, the people whom they have met and interacted with in real life. This strategy contributes to controlling their privacy, and with less expectation of risk, makes them feel more comfortable about self-disclosure.

I am not too worried about that [privacy] because it is people who I already know. (P2, AU)

There are only perhaps 3 people in my 110 people friend list that I have not met in person and even I have spoken to for years online. I feel comfortable sharing information about myself. If people have a lot of impersonal business associates or strangers on their friends list, of course they do not want to share things. (P40, Open question, AU)

I see Facebook as a tool for keeping in touch with my real friends in a more private and intimate setting. (P170, Open question, AU)

Some Australian participants applied even more restrictions by using this strategy, friending only people they know well in real life – such as family members or close friends – and even rejecting peers or acquaintances.

I do different things to control the privacy of my Facebook account. So around whom I accept as friends and or my security restrictions and permissions that I have given... So anyone that I’m talking to on Facebook I consider to be a friend not just a peer and not just a colleague. I have to see them as being friend in my life. (P3, AU)

I totally manage who has access to my stuff. I have a very limited number of friends on Facebook, and I know them very well, mostly family members or close friends. (P1, AU)

Exclusion of Important and Sensitive Personal Information

Excluding personal and sensitive information from one's Facebook profile is another privacy protection strategy that Australian participants might employ. Such personal information includes contact details such as phone number, email and home address, birthdate, and (sometimes) work or study details.

My rule is if it is something that I think I want to protect then I will keep it in. Some things like my date of birth for example, I am not going to put that on Facebook. (P1, AU)

This strategy, on the other hand, was not likely to be considered by Saudi Arabian participants, who were more inclined to publicly disclose more personally identifiable information.

Saudi Arabian Participants

Think before You Post

Some Saudi Arabian participants indicated that they think about their friends' responses before they post on Facebook. Such thinking helps them to avoid disclosing information that might be socially unacceptable, and its consequential social risks, including social disapproval and rejection.

I always think ten times about the consequences of such sharing before I did it. Many times I decided to not share after I think about the friends response. (P1, SA)

I always think whether the content that I post is approvable to my friends or not before I post. (P2, SA)

Using Unclear and Ambiguous Posts

Some Saudi Arabian participants used unclear and ambiguous Facebook posts as a privacy control measure. This strategy is more likely to be used when a person wishes to communicate private information to specific friends and not to others. This is because such posts can only be interpreted and understood by target friends, while not making sense to others. Participants also indicated that the use of this strategy helps them to protect their privacy, while still being able to self-disclose.

I play with the words to make my message is only understandable by my close friends; we have special codes that we usually use on

public post when we do not like others to know what happened. (P2, SA)

I sometime do ambiguous post, which only makes sense to people who I meant by this post. (P8, SA).

Anonymity and Friending Strangers

Many Saudi female participants (anonymous users) claimed that hiding their real identity on Facebook is the strategy that they employ to protect their privacy.

Definitely my privacy will be more saved with remaining anonymous on Facebook; the anonymity also makes me feel safer to say what I want. (P9, Female, SA)

Using fake identity helped me in protecting my privacy and enabled me using Facebook without restrictions. (P10, Female, SA)

Anonymous participants from Saudi Arabia also indicated that their main friends on Facebook are people who are real-life ‘strangers’ and whom they do not expect to physically meet. Participants feel safer with these strangers, where their self-disclosure is more likely not to affect their offline life.

I am using false identity on Facebook and I am very careful that no one of my relatives and people who knows me in real life being on my Facebook. I reject friendships request that come from people I now or belong to my tribe. I unfriended one person that because he is friend to some people who I know in my real life. Certainly, because my friends are out my community [offline], I feel safer. (P10, anonymous female, SA)

Some anonymous participants from Saudi Arabia believed that it is preferable to complain about life hardships and share their negative feelings anonymously with strangers, rather than openly with relatives or real friends. This is because an anonymous self-disclosure to a stranger is free from accountability, does not carry the risk of being misused, and does not identify an individual’s weaknesses or traditionally unacceptable behaviour or views:

Many of people do not like to vent to their relatives – they prefer to complain to strangers. They do not like them [their relatives] to know their weaknesses. They might not trust their relatives or scared that they might use a disclosure in an adverse way. On Facebook, you can find someone who can listen to you without asking who you are. (P7, Anonymous, SA)

Creating Sub-set Friends' Lists

Participants from Saudi Arabia also acknowledged that creating sub-set friends' lists is a useful strategy for protecting their personal privacy. This strategy might be more applicable to users who have large numbers of friends in various types of relationships, where such lists enable them to share content with specific friends only, and to hide it from others.

I have privacy settings that allow me to share specific information with specific people. I use lists to do this. I only share private information with my closest friends list. To some people it looks like I do not share anything, to others it looks like I am quite active on Facebook. (P144, Open question, SA)

I have categorised my Facebook friends to four groups; where I can share specific things to one group and hide it from the others. This strategy helps me in controlling my privacy concerns. (P6, SA)

Both Australian and Saudi Arabian Participants

Using Private Messaging

Many Australian and Saudi Arabian participants acknowledged that they use private messaging with selected friends on Facebook when they wish to disclose important, confidential, or embarrassing information. This strategy is effective for protecting personal privacy while being able to share important content with friends.

If I need to tell someone something private I would use Facebook messenger to tell ONLY then/the specific people concerned, not everyone. I don't think it is appropriate for everything to be public. (P266, Open question, SA)

I reveal a lot using private message on Facebook like feelings, thoughts, emotions, and whole thing to my closest friends. (P4, AU)

I do not use public wall to disclose intimate and important information, however, with some strong relationships I might disclose such things using Facebook messenger and private message. (P5, SA)

I sometime use Facebook message to talk about something private with close friends; like complaining about personal issue and ask for support, but in private not as public post. (P9, SA)

5.8 ANONYMITY

Two different types of anonymity on Facebook were generally suggested by participants in this study: 1) partial anonymity and 2) full anonymity. In partial anonymity, people usually hide their real names, photos, and other personal identifiable details from the public, while connecting and interacting with real friends who know the identity behind the anonymity. The main motivation for this partial anonymity is to be able to join Facebook and connect with welcomed and safe contacts, while at the same time avoiding being searched or located by specific unwanted people who present privacy risks. This type of anonymity was discussed more by Australian participants.

With full anonymity, however, people hide their real Facebook identity from everyone, including their family members and close friends, and thus have a greater tendency to connect with strangers and people form out their offline communities. The main motivation for full anonymity is to avoid being identified in person by anyone, where identifying one's real identity could cause many negative social consequences. This type of anonymity was acknowledged by many Saudi Arabian participants.

5.8.1 Partial Anonymity

Being Targeted by Specific People

The desire to hide one's identity from specific people while being able to connect with welcomed contacts was suggested by the Australian sample as a motivation for partial anonymity. The Australian participants indicated three different scenarios for the use of partial anonymity on Facebook. The first is related to a person's type of job, since some job types are sensitive (for example, federal police officer) and require people to hide their real identities online to avoid being located offline by unwanted others (for example, criminals), or giving them a chance to learn about their life including activities and events. Partial anonymity protects them from the real-life negative effects of such actions, and enables them to join Facebook and connect with friends whom they like and trust.

There is one of my friends who use a false identity because of his job. He is a federal police officer, so he cannot have any personal details including the profile pictures, and he does not share anything personal and doesn't allow himself to be tagged in photographs. It is dangerous for them to share online details. (P5, AU)

I have a few close friends who are teachers in primary or secondary schools and because of issues with privacy in Facebook and the environment that they work in they have chosen not to have a Facebook's account or hidden their identities. There have been a lot of issues with teachers using Facebook and then there being issues with a student or with parents and the parents then slandered the teachers on their Facebook site or that sort of thing. (P3, AU)

Having a violent relationship offline was the second scenario reported by one of the Australian participants. When a person has a violent off-line relationship (for example, involving a former partner), and is trying to escape or avoid such violence, they usually use an anonymous identity on Facebook. Again, the ability to remain partially anonymous on Facebook helps such people to escape risk, while also allowing them to communicate with wanted friends who know the real identity behind the partially anonymous one.

I have one friend on Facebook not as herself. She is someone who has escaped a domestic violent relationship, so she is on Facebook but under a title of different name so that she cannot be found by her former partner but I know who she is. She has privacy concerns. She tries to be safe and not have her identity revealed. It is a way she can still be involved in that space without the risk. (P3, AU)

The case of future employers searching the Facebook content of potential candidates is another scenario where partial anonymity enables the person to connect freely with wanted friends, while minimising the risks of future employers locating their profile and (possibly) finding embarrassing content.

I have a friend that uses a fake name 'L'Oreal Paris', which is nothing like her real name. She did that just for basic searching; if certain people like future employers or other unwanted people were to search her real name, they wouldn't find her. But she is very active on Facebook but got a fake name so no one can find her. (P7, AU)

The discovery of one's real identity by unwanted people might not be that risky to people who have partial anonymity on Facebook. This is because accessing a person's profile and gaining their information does not usually occur unless that person has given other users the authority to do so.

There would be no much risk if they were identified. They would just know that is their profile but they still have to accept them to gain like full access to what she does. (P7, AU)

5.8.2 Full Anonymity

Females Avoiding Social Restrictions

In Saudi Arabia, anonymity on Facebook was more acknowledged by female participants, who try to hide their real identities from everyone, especially from their family members, relatives and close friends. This anonymity is an effort to avoid certain social restrictions that prevent them from being present in public spaces. Violating such restrictions and using their real identity would be harmful to their reputation and their family honour.

My name on Facebook is fake and my photo as well. I will never ever put things that reveal who I really am. I also hide my Facebook from my family, and purposely try to reject any friendships that come from my community. (P7, female, SA)

We live in strong cultural society, where the perception of using the internet by girls is bad. Most Saudi people including my family believe that the girl who uses the internet is incident, and only use it for bad things like chatting with boys etc...Hiding my identity on Facebook enables me to escape such negative cultural view. (P10, female, SA)

Interestingly, it is suggested that Saudi females might also remain anonymous on Facebook even if their friendships are limited to family members, such as husbands, brothers and sons who approve their use of Facebook. This is to avoid the discovery of their real identity by friends of friends who might not approve of their use of Facebook (for example, friends of their husband or sons), and this would bring shame to their family.

Woman in Saudi Arabia usually hides their identity on Facebook even if she friending only her family (husband or sons), to avoid being identified by the friends of her friends. (P239, Open Question, female, SA)

According to many Saudi female participants, discovering the real identity of an anonymous female on Facebook causes them many significant social and family problems. Such problems can include damage to their reputation, social rejection, being rejected by men as marriage partners, and harsh punishment from the males in their family.

[If the real identity discovered] I will be in critical situation; having strong hitting by my brothers, bad reputation to me and my

family, and losing all interested and nice things in my life for ever. (P10, female, SA)

The girls' reputation will be destroyed [If the real identity discovered] and might not get married because it is like a scandal for her, and no one will accept her as a wife for him. (P7, female, SA)

While anonymity enables many Saudi females to join Facebook by hiding their personally identifiable information from others, all anonymous female participants reported that they are still worried about their privacy on Facebook, and are afraid of their real identity being discovered and the social risks involved. They also stated that they are very cautious on Facebook, where the revelation of even a small piece of information might reveal their true identity.

Using fake identity helps me in protecting my privacy on Facebook. However, I am still concerned of being identified. I am very cautious about that, revealing a small piece of my information like name or location might reveal who I really am. (P10, female, SA)

Definitely my privacy will be more saved with remaining anonymous on Facebook; the anonymity also makes me feel safer to say what I want; however, I am still concerned of finding my secret and discovering my real identity. (P9, female, SA)

There is still some fear of being discovered and identified. (P11, female, SA)

Use of Facebook for Political Comment

Saudi Arabian participants also seek to hide their personal identity on Facebook from everyone, including offline friends and relatives, for political reasons. Such anonymity is useful in protecting their personal information, in the event of their wishing to use the Facebook medium to negatively criticise the existing government regime.

I am anonymous on Facebook because I sometimes post political stuff against the government. (P277, SA)

Some people might use false identities on Facebook, to negatively use it against the government like in terror activities or distributing bad rumours. So the fear of being punished by government might be the reason behind their anonymity on Facebook. (P5, SA)

The discovery of the real identity of a person who has spoken out against the government on Facebook could incur punishment such as a jail sentence, a death

sentence, or loss of employment. One Saudi participant (P5) discussed such negative consequences of being identified, claiming that:

The person who identified doing this thing [negative use against the government] will be in big trouble such as jailing or firing from their job. (P5, SA)

It is clear that anonymity on Facebook helps such people to feel safer in expressing their opinions. Nevertheless, a fear of the negative consequences of discovering their real identity will always be a cause for worry and concern. Another participant (P4) discussed these concerns:

I think the motivation for people who hide their identity on Facebook is they want to say or to do something and fear of the response of the government; then they hide their identifiable information to be able to do that, however, they will stay concern of being identified and face such response and penalty. (P4, SA)

Desire for Illicit Sexual Relations

Some Saudi Arabian participants cited the desire for sexual relationships as a motivator for anonymity on Facebook. Dating in Saudi Arabia is very difficult, and forming illicit sexual relationships is strongly forbidden by Islam, and rejected by Saudi society; therefore, some Saudi participants hide their identity in order to be able to form such relationships online and develop them in the offline realm.

The desire to exchange pornographic and sexual content on Facebook might also lead a person to hide their identity to avoid government punishment and social disapproval.

They [anonymous users] like to share pornographic content on Facebook; and do not want people from their society to know that. (P113, SA)

It is clear that anonymity on Facebook helps some people to fulfil their sexual desires by avoiding religious, cultural, and government restrictions. The negative consequences and the punishment that they might face if their real identity is discovered, however, means that they are ever cautious and worried about their Facebook information.

5.9 SECRECY

Australian Participants

The majority of Australian participants reported that they feel in control of their private and important information, and can secretly control its availability as required or desired. Participant 7, for example, indicated that the opportunity for secrecy on Facebook minimised their privacy concerns.

If I am not comfortable saying something then I am not going to write it, like putting my mobile number, I do not feel pressured to put it...It [secrecy perception] does minimize my concern. (P7, AU)

Participant 1 also asserted that they could refuse to post personal information on Facebook, noting that this ability makes them feel safer and in control.

If it is that important to me I would not put it in Facebook. If I have personal information that I do not want anybody else to know, I would not put it on Facebook, and I can do that. So I guess the point of that secrecy is if it's a secret to me then I don't put it anywhere and keep it to me ... My view on secrecy helps me in controlling my privacy So if you look at my view on the secrecy and all those things is, if somebody wants to do something bad, if it is easier for them to do it somewhere else than it is to me, because I do not present a big target. (P1, AU)

Participant 2 also provided an example of content that they do not feel comfortable sharing on Facebook, indicating that they censor themselves by not sharing such content on their profile, and that such self-censorship minimises their concerns.

I'm really open on my Facebook but I do censor myself a little bit...Definitely that minimise my privacy concerns, I am not sharing because I want to maintain some level of privacy about something so I just don't put it out there. (P2, AU)

Saudi Arabian Participants

The majority of Saudi Arabian participants also reported that they feel in control of their private information, and are able to keep some of it secret if they feel uncomfortable sharing it with others on Facebook. Participant 5, for example, acknowledged such feelings and abilities, indicating that they make them feel safer and less concerned.

I am the person who feels in control of sharing private information on Facebook; I can prevent myself of disclosing things that important to me. There are some people who cannot control that but not me...The ability to control give me more confident on protecting my privacy and feel safer. (P5, SA)

Participant 1 is another example of a Saudi Arabian who feels they can prevent their private and sensitive information being shared on Facebook. Again, they assert that this ability increases their control and reduces their concerns.

I am the person who able to keep thing that it is important or private off Facebook. I always think ten times about the consequences of such sharing before I did it...That helps me on controlling my information concerns. For example, when a Saudi girl has a romantic relationship with a boy, they will not share such information on Facebook even their account is private and only limited to real friends; that because this information will be misused and negatively affect her. So, the ability for keeping such information is away of Facebook is the best way to control such concerns. (P1, SA)

Two Saudi participants indicated that they feel they can keep some of their private information secret on Facebook if they feel uncomfortable about sharing it with friends; however, they feel they might not be able to hide information in face-to-face conversation. This is because face-to-face communication is immediate, whereas on Facebook, users have time to think and evaluate the consequences of their sharing.

On Facebook, I think I could control, but might be not in face to face conversations. That because as females we are not able to hide our secrets when we discuss that with friends or someone ask us about it, but on Facebook I have time to think about what I am trying to say many times and then decide to say it or not. I guess such perception minimise my privacy concerns and not increase it. (P2, SA)

5.10 SUMMARY OF THE QUALITATIVE RESULTS

This qualitative study provided an enormous amount of descriptive data pertaining to participants' views, opinions and thoughts on the self-disclosure phenomenon on Facebook across Saudi Arabian and Australian samples. Such data, consisting of in-depth participant explanations, led to a rich understanding of the research problem.

Several cultural and social norms were suggested to have a significant influence on the use of Facebook and associated information disclosure across both samples. For example, Saudi Arabians have more social restrictions around forming desirable relationships offline and perceive Facebook as the place to overcome such restrictions. This, in turn, increases their tendency to initiate new online relationships, and encourages them to self-disclose more in an effort to do this effectively. Australian participants, however, have fewer social restrictions around forming relationships offline; thus, they are more likely to use Facebook for maintaining their offline relationships, and self-disclose more to keep their offline family and friends updated on their life activities and changes.

The study also reported many other differences in cultural aspects and social norms that affect Saudi Arabian and Australian participants' use of Facebook and associated self-disclosure. This suggests the importance of considering the differences in user culture and beliefs with regard to understand users' use of OSNs such as Facebook and their associated self-disclosure.

Chapter 6: Discussion

6.1 INTRODUCTION

The aim of this research was to build a sophisticated understanding of self-disclosure on Facebook across two distinct cultures, Saudi Arabia and Australia. Three sub research questions were investigated to meet such research aim. These sub questions are:

1. What is self-disclosure on Facebook?
2. What are the factors that influence self-disclosure on Facebook?
3. How does self-disclosure on Facebook, and the factors that influence it, differ between Saudi Arabian and Australian cultures?

A sequential explanatory mixed methods design (Creswell & Clark, 2010) was employed to achieve this aim. In this design, quantitative data (Saudi Arabia n=308, Australia n=351) was first collected and analysed to offer a general understanding of self-disclosure on Facebook. Seven factors that were hypothesised to influence self-disclosure on Facebook were tested, and an online questionnaire was used for collecting this quantitative data.

Secondly, a qualitative study was undertaken across the two groups of participants to further investigate, confirm, and illustrate the obtained quantitative results. This qualitative approach was based on a series of semi-structured interviews (Saudi Arabia n=12, Australia n=8) and an open question in the online questionnaire (Saudi Arabia n=190, Australia n=201). The outcomes of both quantitative and qualitative studies are combined in this chapter, to address the research questions and to create a comprehensive picture of the research problem.

6.2 SELF-DISCLOSURE ON FACEBOOK ACROSS SAUDI ARABIAN AND AUSTRALIAN PARTICIPANTS

Quantitatively, the analysis indicated that both Saudi Arabian and Australian participants have moderate levels of self-disclosure (in terms of breadth and depth) on Facebook, but with a significantly higher estimation for Saudi Arabians.

Self-disclosure on Facebook was also statistically described through various variables that relate to the participants' demographics and their attitude toward, and usage of Facebook. 'Gender' for Australians, and 'marital status' for Saudi Arabians, were the only two factors that had statistically significant impacts on the level of self-disclosure. Australian females self-disclose significantly more than males, and Saudi Arabian single participants self-disclose more than those who are married. Other demographic details such as age, education level, and type of employment did not show any significant influences on self-disclosure for either of the considered samples of users.

The quantitative analysis also revealed that increasing one's number of friends, the number of groups joined, and time spent on Facebook lead to more extensive self-disclosure in both the Australian and Saudi Arabian samples, with this effect being the greater for the Saudi Arabian sample.

These results can be explained by Ross et al.'s (2009) study that suggests that the larger the frequency of Facebook use, and the larger the number of friends and groups one has on Facebook, the greater one's online social activity. This, in turn, also causes increased levels of interaction and communication among users. Similar findings were recently reported by Chang and Heo (2014) who suggest that American students self-disclose more when they spend more time on Facebook and/or have more online friends.

While the quantitative data provided a general understanding of self-disclosure on Facebook, the qualitative data was then used to achieve an in-depth explanation of the type of information that people self-disclose on Facebook, and of the way in which this information might differ for the Australian and Saudi Arabian cultures. Four different categories of self-disclosure on Facebook are suggested in this study: 1) personally identifiable information; 2) feelings; 3) thoughts, beliefs and opinions; and 4) everyday activities and life-changing events.

Personally Identifiable Information

Personally identifiable information is one type of information that participants submit to Facebook. Such information includes names, personal photos, contact details (for example, telephone number, email and home addresses), date and country of birth. In the cross-cultural comparison of Saudi Arabia and Australia, some complexities were reported in the levels and motivations of disclosing this information on Facebook. For example, it was noticed that Saudi Arabian participants (with the exception of anonymous users) had a higher tendency to disclose more identifiable information on Facebook than the Australian participants. This is because the former largely assume that such greater public disclosure is useful for initiating new relationships online, simplifying contact and communication with friends, either new or existing. At the same time, Australian participants are generally not looking for new relationships online; rather, they focus on maintaining relationships with their offline friends. The latter do not need to be given a lot of personal information, as they are typically familiar with it from their offline relationships. Furthermore, Australian participants are more aware of the potential risks associated with disclosing important identifiable information on public spaces such as Facebook. Such risks include identity theft, random contacts, and cyberbullying.

For these reasons, it can be claimed that the Saudi Arabian participants are more open on Facebook than the Australian participants. It can also be claimed that Saudi Arabian participants have less awareness of the risks of disclosing much personal information publically. Tow et al. (2010) analysed the profiles of a large number of Australian Facebook users, and suggest that there is a general lack of awareness of the negative consequences and risks of disclosing certain personal information online. They (Tow et al., 2010) recommend that government agencies and OSNs run campaigns to inform the users of the real risks associated with extensive disclosure on such applications.

In this study, however, neither the quantitative nor the qualitative data suggests a lack of awareness on the part of the Australian participants. On the contrary, it produced evidence to suggest that the Saudi Arabian participants exhibit this lack of awareness. This might be because the Australian participants have held Facebook accounts for a longer period than their Saudi Arabian counterparts (The Arabic

version of Facebook was only introduced in 2009). Thus, Australians have had more time to understand the risks involved and to learn from other people's experiences. These results also indicate the need for extensive campaigns to raise Saudi Arabian OSN users' awareness of the potential risks associated with disclosing too much identifiable information online.

Through my profile, you can know where I work, my personal email, mobile number, home address, marital status, Skype address. So, you can easily locate me and communicate with me...From 2006 until now, I have had no any concerns or problems of providing this information, and I do not think would be (P4, Public profile, SA)

I do not share sensitive personal information online. I do not disclose my full birth of date, where I live or my mobile number, not even my email, unless a friend of mine asks for it through private mail or message. What if there could be somebody on Facebook that does not like me then call me at annoying times or send you threatening things. (P7, Private profile, AU)

Thoughts, Beliefs, and Opinions

The expression of opinions and thoughts is another type of self-disclosure on Facebook. Three different types of opinions were reported by the participants in our qualitative study: political opinions, religious opinions, and opinions on social issues. This cross-cultural comparison suggested that there are differences between Australians and Saudi Arabians in relation to these types of self-disclosure. For example, it was reported that Australian participants generally tend to disclose and exchange their personal political views on Facebook, whereas Saudi Arabians are more reluctant to do so. Saudi Arabian participants associated their reluctance to disclose in this way to the fact that this type of self-disclosure could be offensive and/or disturbing for their Facebook friends who might have different views to theirs. However, Australian participants feel that this type of self-disclosure is well tolerated and accepted by their Facebook friends, even though those friends might have different opinions.

In a highly collectivistic culture such as Saudi Arabia, the importance of group views and beliefs prevails, and different view or beliefs (to those that are generally held) can cause conflict or social disapproval (Bjerke & Al-Meer, 1993; Hofstede, 1980). At the same time, Australia is an individualistic culture where personal

interest comes first (Hofstede, 1980). A political view can be regarded as an individual's interest, and people feel more comfortable sharing these interests without affecting their relationships with other people who might have completely different opinions. Additionally, Australia is widely proclaimed as a democratic country that supports equal legal rights and freedom of speech. Thus, Australians are more likely to disclose their political views and openly support them offline and online, including on Facebook.

Facebook is not the right place for sharing such things; I do not want my friends misunderstand or judge me based on my political opinions. (P1, SA)

I think it is really great that we live in a country where we can post this sort of information [politic opinions and views] publicly and not be shot or put in jail for doing it. (P3, AU)

While the Australian participants generally reported a lack of interest in disclosing their religious views on Facebook, the Saudi Arabian participants expressed rather diverse views on religious matters. Some of the Saudi participants were willing to disclose their personal religious views and were involved in religious discussions with friends. The reason for this was that they wished to invite and attract non-Muslims to join their religion, or to attract Muslims from different branches (for example, Sunnah or Shiite) to their particular branch. At the same time, other Saudi Arabians do not tend to discuss their religious views, explaining this by their discretion, and their concern not to cause any social issues, misunderstanding, disagreement, or disapproval from their Facebook friends who might have a different religious background, or are from a different branch of Islam.

I many times use my Facebook page to call for Islam. If there is a thing that might give people good impression about Islam, I put it on Facebook, and this totally reflects my religious opinions. (P4, SA)

I never ever talk about my religious beliefs and views on Facebook. ...Sharing my religious beliefs and views might annoy some of them [non-Muslims or friends from other Islamic branches] or cause them misunderstand me. (P6, SA)

For the most part, Saudi Arabians are Muslims, and Islam plays a central role in their behaviour, norms, and life practices (Al-Saggaf, 2012; AlMunajjed, 1997). Promoting Islam and motivating Muslims to practise their religion is a common

activity in Saudi Arabia. Australia, on the other hand, has a more diverse and significantly different religious background and culture. The broad diversity of Australian society results in the co-existence of a variety of religions, beliefs and cultures. This not only leads to religious tolerance, but can also give rise to perceptions that discussing religious views with other people might potentially lead to uncomfortable situations, misunderstandings, disrespect and annoyance. Wang et al. (2011), for example, conducted a qualitative study involving American Facebook users and found that posting religious views on Facebook often leads to significant regret at having done so. This is an indication of the reluctance to, and inconvenience of disclosing one's religion in multi-religious societies.

Self-disclosure on Facebook is also associated with the discussion, support and promotion of social causes and matters of concern, and these reflect the differences in the social fabric, customs and traditions of each country. For example, the role of women in Saudi Arabia is an important issue that is often discussed by Saudi Arabians with the aim of changing existing attitudes, and achieving gender equality. Similarly, the rights of homosexuals is an issue that Australians debate on Facebook.

Expression of Feelings

The qualitative data suggested two different types of internal feeling disclosure on Facebook, positive (for example, happiness and excitement) and negative (for example, sadness and anger); and two different ways of disclosing such feelings, implicit and explicit. While Australian participants use Facebook more for disclosing positive feelings and happy emotions, the Saudi Arabian participants tend to share both negative and positive feelings, with a stronger tendency towards disclosure of negative feelings.

It is also suggested that Australian participants are more likely to use Facebook to create an artificial life that mostly exhibits positive feelings and happy emotions – which might not necessarily represent their real life experience – while hiding negative ones. Even when they do disclose negative feelings (which is less likely), Australian participants generally do it in a humorous manner, to engage their friends, strengthen their own morale, and to promote positive interaction and feedback.

Many of my friends share their feelings, sending across the idea how happy they are. Often I do not meet most of them for years, and when I meet them, I have an experience totally different from the

online interaction. People are not as happy in their lives as on Facebook. It is a virtual environment with a second life, making people lives dual lives. (P126, Open question, AU)

People who only share happy feelings make their lives look completely artificial, though I would probably be more prone to have this artificial glossy life because I do not share sad things. (P5, AU)

If something bad happens to me I will phrase it in a funny way so making a joke of my own situation because I think that might make me feel better if I turn my situation into something funny. (P7, AU)

Based on the analysis of the qualitative data, four main reasons are suggested for the observed reluctance of the Australian participants to disclose negative feelings on Facebook. These are 1) a reluctance to worry family and close friends; 2) a desire to avoid negative reactions or feedback from friends, which could exacerbate the situation; 3) a desire to avoid misunderstanding; and 4) the desire to present the self in a favourable way (in the knowledge that the sharing of negative feelings is boring, inappropriate, and could cause one to lose friends). This last reason appeared to be the most frequently reported one. (This reason and the motivation for self-presentation on Facebook is discussed in more detail in Section 6.3.3.)

The most annoying people on Facebook are the people who are just sad all the time. I have hidden them. (P7, AU).

I got people who are my Facebook friends and who mostly whinge or gripe about things, and then it is all negative. Those are the people I unsubscribe from. (P2, AU)

However, the Saudi Arabian participants generally indicated that the reason for sharing negative feelings is to receive positive feedback from friends to help to reduce and relieve negative pressure and emotional problems. This more open approach to disclosing negative feelings and the expectation of support from friends should be more common in collectivistic societies such as Saudi Arabia.

When a person is in a negative situation; he/she feels under pressure and sad. Facebook, to some extent, relieves such pain by enabling users to vent to their friends and receiving their positive comments, such as: “do not care about it” or “take it easy”. (P4, SA)

Two different ways of expressing feelings on Facebook were reported by the Saudi Arabian participants: 1) explicit expression through clear and direct messages

to Facebook friends, explaining the causes of their feelings and seeking friends' interaction and support; and 2) implicit expression (more common) by using Holy Quranic verse (God's sayings), Hadith (a report of the deeds and sayings of Prophet Muhammad), poetry, story, or quotes that reflect their feelings without directly identifying the feelings or their causes. Many participants acknowledged that close friends, family members and relatives more frequently interacted by using this second type of expression because they know each other very well and often do not require detailed explanations of a situation that is causing particular feelings. On the other hand, it was noted that Australian participants generally used the direct means of disclosure, including describing the actual feelings (mostly positive in their case) and their causes.

When I feel sad, I express my sadness indirectly by posting sad poems or song on my Facebook. (P7, indirect negative feeling expression, SA)

I might use poetries or quotes that reflect that [sad feelings]...My family and real friends are the people who usually interact with me. (P2, indirect negative feeling expression, SA)

Hall's cultural theory (Hall, 1976) of low-context versus high-context cultures proposes that people from high-context cultures such as Saudi Arabia convey messages in a more abstract, implicit and indirect manner, and the receiver must understand the contextual cues in order to interpret the message. Words in this culture do not have the same weight as context. However, a message in a low-context culture such as Australia should be clear, direct, and include full description and information. Thus, communication with strangers in low context cultures like Australia is not difficult due to the limited use of internalised context.

This research indicated that Australian participants disclose feelings explicitly on Facebook and that Saudi Arabians disclose feelings implicitly on Facebook, thus suggesting the extension of low-context and high-context communication to the Facebook context. Similar findings were revealed by Cho (2010) who argued that Koreans on the Cyworld application use more indirect high-context types of communication, whereas Americans on Facebook use more direct communication in line with their low-context culture.

Everyday Activities and Life-changing Events

Sharing content about personal life activities and events is another important type of self-disclosure that arose with the use of OSNs such as Facebook. The qualitative data from this cross-cultural comparison suggested that Australian participants are more interested in sharing their everyday activities (both important and minor) with their offline friends on Facebook, perceiving Facebook as a good record of personal daily activities and life-changing events. However, in the Saudi Arabian sample, this tendency for disclosing personal life activities and events on Facebook was not highly acknowledged. Furthermore, some Saudi participants tend to regard sharing this type of information as boring and annoying, especially the sharing of small and insignificant activities, and can lead to unfriending over-sharing friends or hiding their updated news.

Facebook is my personal blog, to share all my life activities. (P115, Open Question, AU)

I use Facebook as sort of a way to see what other people are doing and to tell people what I am doing. (P7, AU)

I am less likely to tell about my life happenings and activities on Facebook like saying today I did this, or I went to that place. (P2, SA)

This difference between the two samples in regard to disclosing personal life activities and events might be explained by the high tendency that Australian participants have for using Facebook for connecting with offline friends (including those overseas or interstate), to motivate more self-disclose of their life activities. In the Saudi Arabian sample, on the other hand, Facebook is used to both maintain offline relationships and to build new friendships outside the offline environment. Thus, these online friends might be much less interested in the everyday offline activities of the user.

Sharing personal interests and hobbies is another way of self-disclosing on Facebook. The qualitative data suggested two distinct ways of disclosing personal interests and hobbies on Facebook: (1) direct disclosures by means of adding the relevant details to one's personal profile, and (2) indirect disclosures by means of posting related content during the routine use of Facebook (for example, by sharing photos when riding horses, knitting, surfing, or gardening). Across the two samples, it was noticed that Australian participants were more likely to disclose their personal

interests and hobbies indirectly, whereas Saudi Arabians typically use both the direct and indirect ways of so doing.

If you sat down and looked at photos that I posted or comments that I make, it will tell you what my interests are, likes, dislikes, hobbies...I really like gardening, so I will often post stuff about what I am doing in the garden; here is plant that I am trying to grow, or have killed. (P3, Indirect, AU)

I update my profile with many movies that I watched. I added a series of favourite books. I also like to write and read poems and I mentioned that on my profile...I added one of Facebook friends because she was interested in performing traditional songs and poems, called Enshad, which I like. (P2, Direct, SA)

The higher tendency for direct disclosure by Saudi Arabian participants can be explained by their motivation for seeking new friends based on mutual interests, such as in the case of Participant 2 quoted above (This is discussed in more detail in Section 6.3.2 below).

The analysis of the quantitative data also revealed that many Saudi Arabian participants (32%) have public profiles, compared to a very limited number of Australian participants (8%). It also showed a significant positive relationship in Saudi Arabia between having a public profile and using Facebook for initiating new relationships, including those based on mutual interests. This again suggests another complicated difference between the way in which Australian and Saudi Arabian participants approach Facebook and their associated self-disclosures. Saudi Arabian participants tend to act online in a much more open fashion than Australian participants, displaying more personal interests and details on their profiles, with the aim of initiating new friendships with people who might want to share these mutual interests online rather than simply sharing everyday offline life activities. Australian participants, however, tend more to disclose their interests privately to their existing friends, and as a way of communication with them, and updating them on their offline activities.

6.3 FACTORS PREDICTING SELF-DISCLOSURE ON FACEBOOK

6.3.1 Maintain Offline Relationships

A significant finding of this thesis is related to the first hypothesis that suggests that maintaining offline relationships on Facebook increases people's self-disclosure (H1). Quantitatively, this hypothesis was fully supported by both the Australian and Saudi Arabian samples, demonstrating that maintaining offline relationships on Facebook caused both Australian and Saudi Arabian participants to self-disclose more details on Facebook. In this cross-cultural comparison, the quantitative results showed that Australian participants have a significantly higher tendency to use Facebook to maintain their offline relationships than the Saudi Arabian participants. Furthermore, the tendency for maintaining offline relationships on Facebook was found to be a significantly stronger stimulus for self-disclosure for the Australian participants than for the Saudi Arabians.

The qualitative analysis provided a more sophisticated understanding of this hypothesis, by suggesting some of the factors behind the quantitative differences in the results across the two samples. For example, it was generally noticed that Australian participants are more likely to use Facebook for maintaining 'strong offline ties' with family members and friends whom they regularly meet and interact with, and are less interested in having strangers, acquaintances, or peers in their Facebook networks.

Half of my Facebook friends would be close family. The other half would be close friend...the people that I am friendly with I know too very well. (P1, AU)

Anyone that I am talking to on Facebook I consider to be a friend not just a peer and not just a colleague. I have to see them as being real friend in my real life. (P3, AU)

At the same time, Saudi Arabians are more likely to have 'weak offline ties' with their Facebook friends who often include childhood friends, tribe members, people from their home city, neighbours, co-workers, and people they meet at

various social gatherings but rarely interact with in real life. It can be generally suggested that any person that Saudi participants have met offline can be a friend on Facebook.

I have friends from my current school, high school, my tribe, and the place where I live. So, if I know these people in real life, they can be my Facebook friends. (P8, SA)

Many of my friendships on Facebook originally existed in my real life, including some school friends, people from my home city, neighbours, and people who I met in different social gatherings. (P5, SA)

Typically, the Australian participants have more important offline contacts (e.g. family members or close friends) with their Facebook friends than the Saudi Arabian participants. Thus, it follows that Australian participants, whose important offline contacts can be a strong motivator for sharing much personal detail, lend more support to this first hypothesis than their Saudi Arabian counterparts.

According to Social Penetration Theory (Altman & Taylor, 1973), people who have known each other personally for a long time are more likely to display higher levels of social penetration and are thus more likely to perform greater self-disclosure, compared to people who have superficial or weak relationships. The Uncertainty Reduction Theory (Berger & Calabrese, 1975) also proposes that self-disclosure increases where the level of uncertainty in the relationship is reduced. This indicates that people who share real connections, close relationships and strong ties have low levels of uncertainty, and this leads to high levels of self-disclosure among them.

People who disclose much of personal information on Facebook are only friends with people they know well in person, so that is a valid reason to share a lot of personal things. (P219, Open question, AU)

If people have a lot of impersonal business associates or strangers on their friends list, of course they do not want to share things about the self. (P40, Open question, AU)

Living or travelling away from family and friends creates another complexity associated with maintaining offline relationships on Facebook across both samples. Australian participants generally acknowledged the use of Facebook for connecting with overseas or interstate family, relatives, and friends. This indicates that such

connections are a significant motivator for increasing their use of Facebook and its associated online self-disclosure relating to life events, changes, and daily activities, both significant and insignificant. Under these circumstances, for Australian participants, Facebook has largely replaced the traditional writing of physical letters and making telephone calls to remote relatives and friends to inform them of ongoing events. At the same time, the Saudi Arabian participants acknowledged this means of distant communication and its benefits to a much lesser extent. This is largely because they are less likely to have family or relatives who live a long way away for a long time.

I only use it to keep in touch with folk who have moved far away so I can have a sense of their new life. (P82, Open question, AU)

It [overseas family] does motivate me to share on Facebook mostly because I like to show them what's going on our life. (P5, AU)

I have never written a letter to anyone in I reckon 15 years so I think without Facebook, I would have lost touch with those sorts of people. [overseas family and friends]. (P3, AU)

Cultural differences and their influences on participants' approach to using Facebook can be clearly noticed here. Australia is known as the land of migrants (Cobb-Clark, 2003; Miller, 1999), with 46% of the Australian population either born overseas, or having one or both parents born overseas (Immigration & Citizenship 2008). Thus, it is quite common for Australian participants to have family and friends who live outside the country; Facebook facilities effectively and easily help to fill the distance between them.

In Saudi Arabia, on the other hand, the immigration acts are strict and very limited (Silvey, 2004). The Saudi culture also encourages people to live close to each other, following the value of sharing the same dwellings with grandfathers, their sons and their wives and children (AlMunajjed, 1997; Long, 2005; Nahas, 1954; Othman, 1974). Thus, the migrant culture in Australia and the tendency to connect with distant family and friends on Facebook is another valid explanation of the observed greater support by the Australian participants for this first hypothesis.

Tribal relationships on Facebook are another recognised cultural difference in the approach to using such applications for maintaining offline relationships. The majority of the Saudi Arabian participants indicated their motivation and intentions

to use Facebook to maintain relationships with people from the same tribe. This is often achieved through creating tribal communities (groups) on Facebook, involving only members from the same tribe.

The Saudi Arabian participants also use such communities and groups to discuss tribal issues, exchange personal events and life changes, self-disclose opinions, and provide support for each other. In fact, the tribal system is very important to the way in which Saudi Arabians identify themselves and structure their offline social relationships (Aldraehim, et al., 2012; At-Twajiri & Al-Muhaiza, 1996; Bittles, 2008; McAuley, 2005; Wilson, 1994; Zein, 2006). Tribes in Saudi Arabia are usually big and consist of hundreds of members. While these tribal relations are largely weak, Saudi Arabian culture encourages people to generally know and connect with all members of their tribes.

The outcomes of this study support and extend the view of the importance of tribal relationships in Saudi Arabia by suggesting their significant influence on participation in Facebook and its associated online self-disclosures. Tribal relationship motivation was not acknowledged by any Australian participant whose culture seems to place less emphasis on this type of offline relationship.

I usually send a friendship request to people who belong to my tribe. I also joined a Facebook group for our tribe. (P5, SA)

We have a special group on Facebook for my clan. (P2, SA)

This group [tribe] is used to discuss social issues related to our tribe and its members and to exchange information about important personal events like graduations, wedding plans, participating in races, etcetera. (P6, SA)

In summary, it is important to mention that this hypothesis is built on the cultural assumption that Saudi Arabia is one of the most conservative and collectivistic cultures in the world (Bjerke & Al-Meer, 1993; Burkhart & Goodman, 1998). This creates an expectation that Saudi Arabian participants would have a greater tendency to use Facebook to connect with their offline friends, concentrating mainly on connecting with closer friends and relatives online as they do in real life. Australians, however, as members of an individualistic society, could be expected to be more open in their Facebook relationships, to welcome weak offline contacts, and

to be more likely to connect with people beyond the scope of their offline social world (Hofstede, 1980).

The outcomes of both the quantitative and qualitative analysis in this study generally oppose these assumptions, suggesting that Australian participants are more conservative in their relationships on Facebook, whereas Saudi Arabian participants are more open.

6.3.2 Initiating Relationships

Research findings provided full support for the second hypothesis (H2), by revealing that the opportunity for initiating new relationships on Facebook increased self-disclosure in both the Australian and Saudi Arabian samples. This result is also consistent with the earlier findings by Krasnova et al. (2010) who demonstrated that the motivation for building new relationships on OSNs increases the ‘breadth’ of self-disclosure among users, though attempting to avoid deep and intimate self-disclosure. Because both breadth and depth scales were combined as one reliable scale – given the name ‘self-disclosure’ – in this current study, it can also be deduced that the motivation for initiating new relationships on Facebook increases both the depth and breadth of self-disclosure.

In the cross-cultural comparison, the quantitative analysis showed that Saudi Arabian participants pay significantly greater attention to initiating new relationships on Facebook compared to Australians, who are more reluctant to form such relationships (This was indicated by a score of less than 3, the cut-off level). The influence of the motivation to initiate new relationships on participants’ self-disclosure was also considerably higher among the Saudi Arabian participants, implying that they self-disclose more extensively than Australians do, in order to form new relationships and/or to communicate with new friends on Facebook.

Consistent with the quantitative results, the qualitative findings also suggested that the Saudi Arabian participants were generally more welcoming of legitimate random relationships on Facebook. The Australian participants, on the other hand, normally opposed this view, believing that new relationships should start offline, and then (possibly) move to Facebook.

The qualitative data also highlighted cultural findings that broadened the picture around this hypothesis, by helping to interpret the significant variance in the

quantitative results for the two samples. According to the Saudi Arabian participants, there are certain social cultural restrictions around forming desirable offline relationships in Saudi Arabia. Thus, Facebook is perceived as a platform for overcoming these restrictions and compensating for what is lost in offline social relationships. Because there are fewer sociocultural restrictions on the formation of desired offline relationships in Australia, on the other hand, it is not surprising that Australian participants generally preferred their relationships to start offline and then to move online to Facebook. This also explains their higher tendency (in previous findings) to use Facebook as a tool for maintaining their offline relationships, and to self-disclose more to support this purpose.

Thus, the differences in the cultures and their associated restrictions on forming desirable relationships offline, and the role of Facebook in overcoming these restrictions, are suggested to be the main reasons behind considerable differences between the samples. Similar findings related to the fact that restrictions on their social life boosts people's tendency to socialise online using social media (rather than offline and in real life) were recently identified by Boyd's (2014) study. The study found that teenagers prefer to socialise with friends in real life rather than through social media. However, because their lives are often highly structured and their mobility restricted by parents, they significantly resort to social media "where they can make up for what's lost" offline (Boyd, 2014, p.96).

I usually accept new friendships on Facebook. (P8, SA)

If it is just a random person then I will not accept them. (P7, AU)

Three main Facebook features were reported to help the Saudi Arabian participants to avoid certain social and cultural restrictions on forming offline relationships. First, Facebook is a virtual meeting space that does not involve physical interaction. Offline in Saudi Arabia, there is a strict rule that segregates the genders, particularly in terms of physical contact and interaction with a non-Mahram (marriageable kin) member of the opposite gender are certainly (Al-Bukhari, 1987; Al-Saggaf & Begg, 2004; AlMunajjed, 1997). Dating in Saudi Arabia is also forbidden, and romantic love and regular meeting as the basis of marriage are socially rejected (Lee & Stone, 1980; World Trade, 2010b).

Online, and particularly on Facebook, due to the lack of physical contact in the virtual world, this restriction is significantly mitigated, enabling the easier formation of new relationships with the opposite gender, including romantic relationships. This is especially facilitated by the ability to have private conversations.

Facebook made communication with the opposite gender [females] easy after it was like impossible [physically]. (P4, male, SA)

Facebook provides me with a great chance to discover and learn about the opposite gender [males]. (P10, female, SA)

I have many relationships with the opposite gender on Facebook. One of these relationships developed into a romantic relationship and plans for marriage. (P2, female, SA)

The ability to remain anonymous on Facebook is the second indicated feature that helps Saudi Arabian participants in overcoming sociocultural restrictions in forming desired relationships. Hiding their real identity on Facebook enables many Saudi females, whose families do not approve of their use of the Internet even for connecting with the same gender, to join Facebook and create online relationships with a low risk of consequences.

Anonymity also enables many Saudi Arabians who are socially anxious (such as people with medical or social issues) to escape their real life and connect with people whom they are less likely to meet offline, and with whom they can freely complain and self-disclose without fear of negative consequences. Anonymity also enables Saudi Arabians to form risky relationships, such as illicit sexual relationships, anti-government activity, or any other relationship that is banned for religious or cultural reasons. It has been argued that anonymous online interactions replicate the “stranger on train” phenomenon (Rubin, 1975), where people disclose personal and important information to other people they do not know and will probably never see again (Bargh, et al., 2002).

I use an anonymous name on Facebook...I usually reject any friendship requests from people I know personally...If I cannot hide my identity, I will not be on Facebook. (P11, anonymous female, SA)

Many of Facebook users try to escape their real community to a virtual community that excludes all real friends, to freely share about their selves. (P50, open question, SA)

[The reason behind anonymity on Facebook] *for achieving desired relations with the opposite genders, most of them are illicit sexual relations.* (P5, SA)

Perceiving Facebook as a mutual interest space is the last (third) of the discussed features. There are no specific sociocultural restrictions in Saudi Arabia on forming offline relationships based on mutual interests. However, the Saudi culture and religion strongly encourage people to form friendships based on blood relations (for example, family, relatives, or tribes members) (Al-Saggaf, 2012; Aldraehim, et al., 2012; Kabasakal & Bodur, 2002). Thus, it is quite common in Saudi Arabia for an individual's offline network of friends to mainly consist of family, relatives, and tribe members, and to be based less on shared interests or personal needs. Thus, for many Saudi Arabian participants, Facebook is the platform where they can encounter people who share their interests, rather than those who happen to be in the same physical location, or with whom they have blood relations.

The literature suggests that in real life, people might not be able to find others with whom to share common interests and attitudes, whereas such relationships can easily be found online (Barnes, 2003; Baym, 2010). This was more reflective of the views of the Saudi Arabian rather than the Australian participants who have the chance for these encounters offline.

The quantitative analysis showed that over 30% of Saudi Arabian participants (compared to 8% of Australia participants) make their profile visible to all Facebook users. The qualitative analysis also reported that many Saudi Arabian participants purposely added their personal interests and hobbies to their main profile pages, aiming to connect with people with mutual interests. Thus, the ability to form relationships on Facebook that are based on mutual interests and are outside one's circle of blood relations is another valid explanation of the higher tendency that Saudi Arabian participants showed to self-disclose.

I mainly use Facebook to connect with people who are interested in photography... (P152, Open question, SA)

I added one friend because she is interested to 'Enshad' [traditional singing] like me. (P2, SA)

Most of my new friends on Facebook are people who belong to the same groups that I am interested to. (P3, SA)

Although both quantitative and qualitative analysis indicated that Australian participants are less likely to use Facebook for initiating relationships, there are two situations where Australians might be motivated to do so, and thus increase their tendency for self-disclosure: 1) The existence of mutual friends; and 2) Perceived loneliness offline. Having mutual friends on Facebook is like having indirect relationships – also known as ‘latent ties’ (Baym, 2010) – which provide a significant opportunity for interaction through commenting on the mutual friend’s content. This interaction gradually increases the participants’ familiarity, and results in the development of direct relationships.

This also emphasises the importance of pre-existing relationships and familiarity (albeit weak) to many Australian participants when it comes to forming new relationships on Facebook. Having friends (especially close friends) in common with a new person (stranger) on Facebook increases the perception of familiarity and significantly contributes to friending the ‘stranger’. In other words, friends of existing friends might not be considered as strangers or random contacts, as they appear more familiar by virtue of their friendship with existing friends.

If it is somebody that has a lot of mutual friends with me and they are legit person then I'd accept them. (P7, AU)

I will see who are mutual friends are first and then I will check them out a bit and then decide [to accept new friend]. (P2, AU)

We both shared a mutual friend and I noticed that we were often both commenting on that friend post. So it was kind of like we came to know each other we sort of joke with each other within the comment strain on the friends page and we eventually did become friends. (P3, AU)

Perceived loneliness offline was also reported as an encouragement for Australian participants to form new relationships on Facebook to substitute for the lack of real face-to-face interaction. Quantitatively, a significant positive correlation was observed between age and initiating relationships in the Australian sample, and a significant negative correlation between age and maintaining offline relationships. These results imply that older Australian participants are more likely to use Facebook for initiating relationships and less likely to use it for maintaining offline relationships. This also suggests that older Australian participants might feel more

loneliness offline, and Facebook helps them to build new relationships as a substitute for offline relationships.

Loneliness has been consistently seen as one of the important ‘social problems’ which accompany old age and growing older (Grenade & Boldy, 2008; Routasalo & Pitkala, 2003; Steed, et al. 2007; Victor et al., 2002). McKenna et al. (2002) found that online relationships make people feel less alone and, within two years, facilitate their making offline friends. Lonely people are usually looking for someone who will listen to them when they talk about their lives and how they feel. This need can be easily satisfied on Facebook.

...it [Facebook] is an outlet for me; otherwise life would be pretty lonely. (P260, open question, AU)

People who lack real face-to-face relationships seek that interaction online. (P85, open question, AU)

Everybody needs to have a friend, so if they cannot get friends where they are, Facebook is a community where they will go to because it is easier to make friends. (P4, AU)

The literature also suggests that culture significantly affects the experience of loneliness. People who live in a more individualistic society (such as Australia) are more familiar with the various aspects of loneliness, compared to people in a collectivistic society (Goodwin, Cook, & Yung, 2001; Ostrov & Offer, 1978; Rokach, et al., 2001). This is because an individualistic culture emphasizes individual achievement, competitiveness, impersonal social relationships, and interpersonal alienation. Consequently, loneliness and a lack of real offline friends can be pronounced. On the contrary, a collectivistic culture (such as Saudi Arabia) centres on relationships, encourages its members to maintain strong family and kin ties, and emphasises the importance of regular visits to relatives, especially old people (Othman, 1974; Yamani, 1987). This is one of Saudi Arabia’s important religious values, and contributes in reducing the chance of loneliness in Saudi Arabia.

It is important at this point to again report that this cultural comparison study began with the assumption that members of an individualistic culture (such as Australians) are more interested in forming new relationships on Facebook than members of a collectivistic culture (such as Saudi Arabians). This greater interest, in

turn, leads to greater self-discourse. This assumption was based on the proposition that individualistic culture and openness of relationships should lead to a higher proportion of strangers on an individual's online social network, than in collectivistic cultures (Cho, 2010; Hofstede, 1980).

The outcomes of this study do not support this assumption. On the contrary, they suggest that Saudi Arabian participants are more open on Facebook, significantly welcome new relationships, and self-disclose more publicly in order to achieve this end. The existing cultural restrictions and customs in Saudi Arabian society often stimulate Saudi Arabians to change their behaviour on Facebook where they perceive more freedom to form the desired social relations that might be impeded offline. However, these cultural restrictions are fewer in Australia, making the formation of desirable offline relationships easier. This might explain the observed lesser tendency of Australian participants to initiate new online relationships on Facebook, and their higher use of the platform to maintain desirable offline relations.

6.3.3 Self-presentation

The outcomes of the statistical analysis demonstrated partial support for the third hypothesis (H3), suggesting that perceived opportunities for self-presentation on Facebook increase the levels of self-disclosure. While this hypothesis was identified as the most important determinant of self-disclosure in the Australian sample, it was rejected in the Saudi Arabian one. Surprisingly, the analysis revealed that Saudi Arabian participants have a higher level of motivation for self-presenting on Facebook than Australians. However, their motivations do not appear to have a significant influence on their self-disclosure, as it does for the Australian participants.

The qualitative findings aligned with the quantitative results to show that Australian participants more frequently share their personal achievements and accomplishments on Facebook in order to present themselves in a favourable way to their friends. This is because Australian participants are more likely to use Facebook for maintaining offline connections with real life contacts (as previously discussed). Therefore, they generally feel more encouraged to share content that shows their strengths and positive life events, and are less likely to share sad and negative news. While such happy sharing helps them in making a good and pleasant impression on

their Facebook friends, it also creates an artificial life that only shows their strong and successful side, while hiding the weak and less successful one.

These results strongly reflect the meaning of the concept of the ‘presentation’ of self in everyday life (Goffman, 1959), where the performer (that is, the Facebook user) has ‘front stage’ (that is, their Facebook profile page), where they are visible to a large audience (their network of friends). They perform on this stage mainly to try to present a desired, appropriate and strong appearance to their audience. Meanwhile, their weaknesses and failures are hidden and might be presented privately ‘back stage’ (for example, through private messaging), and be only visible to a very limited number of people (for example, to family members or very close friends). Park et al. (2011) also suggest that Facebook users who are connected with pre-existing real-life friends are more likely to be encouraged to self-disclose positive personal information, attempting to control the impression they make on those friends. Such positive self-disclosure includes personal strengths, positive experiences and personal achievements.

I am more compelled to reveal something that I feel as an achievement and that I am proud of. It [Facebook] can be looked at as a news sharing space and so you share personal news for the things that matters to you personally, and like friends to recognise. (P5, AU)

If I have anything that I am proud about, I would like to share it with my friends on Facebook. When I share such thing they will know my life is going stronger. (P4, AU)

Many of my friends share their feelings, sending across the idea how happy they are. Often I do not meet most of them for years, and when I meet them, I have an experience totally different from the online interaction. People are not as happy in their lives as on Facebook. It is a virtual environment with a second life, making people lives dual lives. (P126, Open question, AU)

In Saudi Arabia, culture and belief are suggested to negatively influence actual self-presentation behaviour on Facebook. As noted by many Saudi Arabian participants, they generally like to share content on Facebook that gives others a good impression of them (for example, achievements and successes); however, the fear of being affected by the ‘evil eye’ impedes this practice.

I believe by the evil eye, it is fact as mentioned by the Prophet Mohammad peace upon him... for this reason I and most of Saudi people do not share their successes and achievements on Facebook. (P5, SA)

[People who do not share about their selves on Facebook], *they might be fear of envy and evil eye*". (P154, Open question, SA)

The fear of the 'evil eye' is a common and practised belief in Saudi Arabian offline societies. It also becomes an important issue for the Facebook virtual society and family members and friends, especially parents, try to make their children aware of the negative consequence of self-presenting success and achievement on such applications.

In real life, Saudi people do not like to talk about their achievements and success fearing of the envy that causes the 'evil eye'... Similarly, on Facebook they apply their belief and perception about the evil eye.... (P1, SA)

My mum always reminds me not to share good news about me fearing of the evil eye, like when I offered scholarship from government or awarded from school, she clearly asked me to not say that on Facebook. (P2, SA)

...one of my close friends called me and said "be careful with what you share, not everything can be said on Facebook, especially the things that cause the evil eye like working 3 days full time on your research. (P4, SA)

Another suggested reason for rejecting this hypothesis is the fear that anonymous Saudi Arabian participants have of having their real identity discovered on Facebook. In other words, presenting the self in a favourable manner might require the anonymous participants to reveal some identifiable information that relates to their success and achievements – something that they do not want to do.

I never reveal information that helps in identifying who I am; such information [achievements and successes] is one of the details that I hide. (P9, SA)

The literature suggests that members of individualistic cultures are more interested in using Facebook for self-presentation to show their success and attractiveness, whereas people from collectivistic cultures display a greater need to belong to their culture and/or community (for example, Lucas, et al. , 2000; Nadkarni & Hofmann, 2012).

While the findings in this thesis are in agreement with the many prior studies that suggest that an individualistic culture (for example, Australia) is more associated with self-presentation than a collectivistic culture, it also uncovered other cultural aspects – such as the fear of evil eye- that have a strong influence on the tendency to self-present in most Islamic societies. Such aspects and their influences on self-disclosure have not yet been discussed in the literature. The findings of this hypothesis also raised the importance of cultural and social beliefs in people’s behaviour online, illustrating that the virtual Facebook society is an extension of the real or offline society and its social norms and beliefs.

6.3.4 Reciprocity

A significant positive relationship between reciprocity and self-disclosure was found in both the Saudi Arabian and Australian samples, indicating that reciprocity on Facebook significantly increases self-disclosure (H4) on the basis of “you tell me and I’ll tell you” (Jourard, 1971a, p.66). A similar result was also described by Posey et al. (2010), who suggested that reciprocity in online communities increases self-disclosure and maximises the benefits of social interactions. Venkatanathan et al. (2013) also recently found that OSN users are more likely to reciprocate the act of sharing personal identifiable information with others, including their full name and date of birth.

The cross-cultural comparison in the quantitative analysis demonstrated that the influence of reciprocity on self-disclosure was significantly higher among Saudi Arabian participants than among the Australians participants. In fact, reciprocity among Saudi Arabians was shown to be the most important determinant of self-disclosure. Furthermore, it was also found that the participants in Saudi Arabia scored significantly higher levels of reciprocity on Facebook than in Australia (Australians scored below three, the cut-off level).

Consistent with the quantitative results, the qualitative data from both the Saudi Arabian and Australian samples also suggested that receiving valuable feedback (for example, liking, commenting, or sharing) from others on Facebook makes participants generally feel appreciated, and obligated to return the favour (including further self-disclosure). It was also noticed across the two samples that the Saudi Arabian participants were more committed to reciprocity than the Australian participants. They are more likely to consider that reciprocity, including self-disclosure, on Facebook is fundamental to successful and continuing relationships, and feel guilty if they do not reciprocate. Furthermore, some Saudi participants, especially those who have large lists of friends, indicated that they purposely visit the profiles of their friends who usually interact with their content to return the favour in the form of liking, commenting, giving opinions, or sharing their content. This is further evidence of the importance of reciprocity to Saudi Arabian participants on Facebook. While Australian participants also acknowledged that there is an element of reciprocity in using Facebook, they tend to respond only to things that are of more interest to them, rather than responding randomly.

I strongly believe this favour [commenting on their content] should be given back, even if the posted content is not that interested...It is unfair to not interact with a person posts whose usually interact with us. (P1, SA)

If I could not see their posts [people who usually interact with their post], due to the large number of friends and their associated posts to my timelines, I usually browse their profile, find what they do and interact with them. (P2, SA)

Yes there is an element of reciprocity there [on Facebook] especially when it is interested things. (P2, AU)

The concept of reciprocity is central to Islam (Al-Zuhili, 2005; Golden Rule Islam, 2008; Vertovec, 2003; Wadud, 2009), which is the major predictor of Saudi Arabian social behaviour. The Hadith quotes Prophet Mohammed (peace be upon him) as saying: "None of you [truly] believes until he wishes for his brother [Muslim] what he wishes for himself" (Al-Albani, 1986). This Islamic instruction clearly highlights the importance of reciprocity in Muslim social life, emphasising the need to treat others as we would like to be treated. It is also suggested that this Islamic instruction is reflected in Saudi Arabian participants' behaviour on Facebook, including their reciprocal behaviour with friends who typically interact

with their content. Wadud (2009) defined the ‘mu‘awadhah’ (intimacy in relationships) in Islam as the result of having reciprocal relations between individuals, arguing that “there can be no other relationship between any two persons except the one of horizontal reciprocity” (p.108).

It [reciprocity] is like a social curtsey and social support; as you support me I have to support you. (P4, SA)

This current study also found a negative quantitative relationship (higher in Saudi Arabia) between network size (the number of friends) and reciprocity on Facebook in both samples, indicating that having a large number of friends on Facebook significantly decreases the rate of reciprocity.

This result was also supported and further explained by the qualitative study that suggested that having a large number of friends is associated with receiving large amounts of content from them, which means that greater effort and time is needed to reciprocate adequately. This also explains the noted quantitative interdependence in both samples of more time spent on Facebook and a higher level of reciprocity, where spending longer on Facebook might increase the chance of reading friends’ posts and responding to them.

I probably could not reciprocate to 300 or 400 people on Facebook in the same way that I may reciprocate to those 70 people that are on my Facebook friends. I would not have time to sit through all that news feed and see everything sort of what people have posted. (P3, AU)

I have large number of friends and a lot of stuff on my feed and that makes it hard to read and interact with everyone post. (P2, SA)

6.3.5 Privacy Concerns

The quantitative analysis in this study revealed that both the Australian and Saudi Arabian samples were similarly moderately concerned about privacy invasion on Facebook. The analysis also demonstrated only partial support for the fifth hypothesis (H5) that privacy concerns on Facebook significantly reduce self-disclosure for the Australian participants; this hypothesis was completely disproved by the Saudi Arabian sample.

In agreement with the results obtained from the Australian sample, however, prior research in various Western communities (for example, in Britain, the US,

France, and Germany) also suggested that the potential privacy risks on OSNs is a critical barrier to users' self-disclosure (for example, Bateman, et al., 2011; Krasnova, et al., 2010; Posey, et al., 2010). This suggests that the rejection of this hypothesis by the Saudi Arabian sample might be related to the complicated cultural differences between Saudi Arabia and other Western countries.

The qualitative investigation indicated the existence of a sophisticated difference between Saudi Arabian and Australian participants in term of the sources of their privacy concerns on Facebook, the methods used to control these concerns, and the associated influence of such concerns on their self-disclosure. It was noted that the privacy concerns of Australian participants were largely associated with potential threats from outside their friends' network – the 'stranger danger'. They are generally concerned that people whom they do not know well in real life (strangers), and who are not their friends on Facebook, could find their personal information and misuse it in ways they did not predict. Several potential misuses or threats from outside were also reported by Australian participants, including identity theft, cyberbullying, unsafe permanent data collection, and possible rejection by potential future employers.

The qualitative data also suggested that Australian participants employ various strategies to protect and control their privacy on Facebook, including: 1) limiting profile visibility 'only to friends' (This is the most popular strategy that they are suggested to use, with the quantitative analysis revealing that 92% of the Australian participants changed their privacy setting for their profile visibility to 'only friends'); 2) friending more real and close friends, whom they know offline and trust (see Section 6.3.1 for more details); 3) excluding important and sensitive identifiable information from profiles, such as email and contact details (see Section 6.2 for more details), and 4) using private messaging to communicate important and private information to specific friends only.

Although the existing evidence supports the Australian participants' use of the above strategies for controlling their privacy on Facebook, they generally believe such strategies are not enough to control their privacy or keep them safe from potential risks. This is because Australian participants generally perceive Facebook as a public space that can be easily viewed from outside, especially given people's advanced computer skills and their friends' ability to more publicly share their

content with others. Thus, once the information is on Facebook, the Australian participants believe it is beyond their control, and is more likely to be exposed to a public audience. Consequently, minimising self-disclosure on Facebook might be the best way of avoiding the potential privacy threat, as proposed in this hypothesis (H5).

Scholars (for example, Bateman, et al., 2011; Hillstrom, 2010; Lam, et al., 2008) also describe how the generation of content on OSNs such as Facebook is public by nature, as it is easily available to anyone with a computer. This is the case even when users restrict access to the information on their profile. They recommend that users minimise their self-disclosure to avoid invasion of privacy and thus avoid future regrets. The observed privacy concern and its negative influences on Australian participants' self-disclosure, indicates their high awareness of the potential risks associated with using these public spaces.

As much as I lock my profile down, you still put information at the World Wide Web, so it can be viewed by someone else. Also, someone that you are friends with can still share your Facebook page to someone that is not a friend of yours. (P3, AU)

Once it is online [personal information], I have a less control over how personal it remains even if I choose to share only with friends it does exist in cyberspace therefore it is not really private. (P5, AU)

Contrary to the Australian view, the qualitative data indicated that Saudi Arabian participants are more concerned with the threats that come from inside their friend network – the 'friend danger'. They are generally concerned with seeing and/or displaying personal content that is socially unacceptable or inconsistent with society's values, rather than with their personal identifiable information becoming visible to strangers or people outside their networks of friends. This situation is likely to be characteristic of societies with significant social, cultural and/or religious restrictions that regulate the behaviour of individuals, as is the case in Saudi Arabia.

Hastings (2000) also suggests that people in highly collectivistic and shared-values societies (such as India) are more wary and cautious about what, and to whom, they self-disclose, so as to avoid the negative rumour, gossip, or social stigma that might be the result of such self-disclosure inside such a cohesive society. This restriction and these concerns might not be the case in individualistic societies.

The Saudi Arabian participants in this current study cited three main types of threats associated with the violation of their privacy on Facebook: blackmail (mostly of females through obtaining their private content such as personal photos); social stigma (for example, as the result of incriminating photos of them in bars, in mixed gender gatherings, wearing unsuitable cloths, or engaging in other acts that are not religiously and socially acceptable); and social disapproval (for example, having opinions or employing practices that are opposed to others' perceptions and expectations).

I am really concerned of being blackmailed; I am a girl and finding any personal information about me might cause this issue. (P12, SA)

Our society is very strict and sharing content that is not socially acceptable harms the person's reputation, and that is my major concerns. (P8, SA)

The fear of criticism or judgment is the reason behind not sharing on Facebook; especially we live in a very conservative society. (P279, Open question, SA)

The Saudi Arabian participants also highlighted the various strategies they use for protecting and controlling their privacy on Facebook: 1) Thinking before they post, and only posting appropriate and socially acceptable content; 2) Using unclear and ambiguous posts that only make sense to certain people; 3) Using an anonymous identity and avoiding friending real friends (although such a strategy is sometimes used by people who are socially anxious); 4) Using private messaging to communicate private information; and 5) Creating sub-sets (sub-lists) of friends to share sensitive content more selectively, by keeping certain disclosures hidden from others. Lampinen et al. (2011; 2009) refer to these kinds of strategies that the Saudi Arabian participants use as 'mental' privacy protection strategies on account of the fact that they do not rely on the site's features to guide the selective information disclosure.

Rather than achieving privacy control by limiting access to all content, the Saudi Arabian participants often attempt to only control access to socially unacceptable content, especially by people they know in person. This approach views the content on OSNs as 'public by default, private through effort'. In this approach, users "rather than asking themselves if the information to be shared is significant

enough to be broadly publicized, they question whether it is intimate enough to require special protection” (Boyd, 2014, p.62).

Saudi Arabian participants are more open on Facebook because of this public-by-default perception; they do not bother to limit the audience for what they consider to be mundane disclosures, seeing no reason to make these legit pieces of personal content private. However, when they think there is something that should be private, they use the protection strategies suggested above to protect it. This might explain why Saudi Arabian participants rejected this hypothesis.

This finding also confirms the Communication privacy management theory (Petronio, 2002), which is concerned with users’ privacy control and self-disclosure. This theory holds that feeling afraid of disclosing personal concerns and information (in this current study mostly related to social issues) might cause individuals (Saudi Arabians) to create boundaries and introduce restrictions with regard to the types of information that they consider public and private, and to control who has access to this information, but without minimising their level of disclosure of this information.

I am concerned but not that much, limited concern...my concern is not minimising the amount of the content that I share. (P6, SA)

I do not feel concerned about sharing about myself on Facebook, and this is because I do not share wrong content that would harm me. (P5, SA)

Johnson et al. (2012) also indicated that users in Facebook are concerned about strangers finding their information (that is, about threats from outside their friends’ list), and that many users are also concerned about members of their friend networks seeing inappropriate shared content (that is, threats from inside their friends’ list). They also believe that the outside threats (that is, from strangers) can be mitigated through the use of Facebook’s privacy settings, while the threats from within their networks are more concerning and less likely to be controlled due to lack of suitable privacy settings for this purpose.

The current study reports a significant cultural influence on concerns about both inside and outside privacy concerns. Members of more individualistic and open cultures with fewer social restrictions (such as Australians) are more concerned about strangers, while representatives of collectivistic and conservative cultures with more

social restrictions (such as Saudi Arabians) are more concerned about their network friends finding socially unacceptable details.

Participants in this current study do not necessarily agree with Johnson et al.'s (2012) view that because of the public nature of Facebook, stranger threats are harder to control, even when employing different types of protection strategies; that the 'friend danger' creates fewer privacy concerns; and that the latter are more easily mitigated through the use of the above 'mental' privacy protection strategies.

It is also important to note that the literature strongly suggests that members of societies with collectivistic value (for example, Saudi Arabians) are characterised by their disinterest in friendships outside their own group, considering that such connections might involve certain risks and threats. Their own group is considered a safer and more trusted social environment (Hofstede, 1980; Triandis, 1989). This characteristic and associated concern is not as strong for people from individualistic cultures (for example, Australians), who generally welcome relationships with people outside of their existing networks and are more open in their relationships. The outcome of this research does not support this view with regard to the Facebook environment, however. It suggests that Australian participants, despite their individualistic values, are more conservative on Facebook, and are more concerned about people outside their friends' lists and their offline contacts (that is, strangers).

Such concerns about, and resistance to friending new people was less evident in the sample of the Saudi Arabian collectivistic-values culture. This suggested that the existing social relationship restrictions in Saudi Arabia, and the ability to compensate for these on Facebook, accounted for the (observed) different behaviour of Saudi Arabians on Facebook. Such restriction on social relationships do not exist in Australia; for this reason, Australians are more satisfied with their offline contacts, and mainly use Facebook for bridging and continuing their offline interactions.

These findings with regard to the Australian participants are also consistent with the previous findings in section 6.3.1 that suggest that they are more likely to use Facebook for connecting with close offline friends whom they like and trust, and less likely to connect with new friends (or strangers) in what they consider to be risky relationships (stranger danger).

6.4 FACTORS MITIGATING THE PRIVACY CONCERNS OF SELF-DISCLOSURE

6.4.1 Anonymity

The quantitative analysis in this study found that anonymity on Facebook was not a widespread practice among the Saudi Arabian and Australian participants, although it was more frequently used by Saudi Arabians. In addition, anonymity was found to be significantly more frequent among Saudi female participants, compared to Saudi males and both genders in Australia.

Unexpectedly, the statistical analysis fully rejected the hypothesis that the ability to remain anonymous on Facebook communities decreases or mitigates privacy concerns (H7). In particular, anonymity on Facebook has been approved as a factor highly increasing privacy concerns for the Saudi Arabian participants, while in Australia it was not statistically significant.

The qualitative analysis suggested two different types of anonymity on Facebook: 1) partial anonymity and 2) full anonymity. In partial anonymity, people usually hide their real names, photos, and other personally identifiable details from the public (by using false details) in order to avoid being searched or located by unwanted contacts. With this type of anonymity, users remain on Facebook, connecting and interacting with their selected trusted friends who know the real identity behind the anonymous one. This type of anonymity was reported more by the Australian participants.

Three special circumstances lead the Australian participants to partial anonymity on Facebook: 1) having sensitive job types, (such as being a federal police officer, and a potential target for criminals); 2) having a violent offline relationship (for example, experiencing physical violence from, or being a target for a former partner) ; and 3) fearing that a current or potential employer could find and disapprove of their online activities (and losing a job or job offer as the result).

There is one of my friends who use a false identity because of his job. He is a federal police officer, so he cannot have any personal details including the profile pictures...It is dangerous for them to share online details. (P5, AU)

I have one friend on Facebook not as herself. She is someone who has escaped a domestic violent relationship, so she is on Facebook but under a title of different name so that she cannot be found by her former partner but I know who she is. She has privacy concern. It is a way she can still be involved in that space without the risk. (P3, AU)

I have a friend that uses a fake name 'L'Oreal Paris', which is nothing like her real name. She did that just for basic searching; if certain people like future employers or other unwanted people were to search her real name, they wouldn't find her. But she is very active on Facebook but got a fake name so no one can find her. (P7, AU)

The second type of anonymity on Facebook is full anonymity, where people hide their real identity from everyone, especially from relatives and friends. Such anonymous users are more likely to connect with strangers and people whom they know only on Facebook, and have less expectation of meeting them offline. This anonymity type was practised by many of the Saudi Arabian participants.

The literature also suggests that online anonymity is largely used to self-disclose to people who are not likely to be encountered in the real world (Caplan, 2003; Humphreys & Klaw, 2001; Tidwell & Walther, 2002; Wallace, 2001; Walther & Boyd, 2002; Weinberg, et al., 1996). Because people typically expect problems to arise from real life encounters, they tend to psychologically separate their real life from their 'online life' and activities. This study also confirms this use of anonymity on OSN applications such as Facebook

My name on Facebook is fake and my photo as well. I will never ever post things that would reveal who I really am. I also hide my Facebook from my family, and reject any friendships that come from my real community. (P7, Female, SA)

The majority of Saudi participants across all the qualitative data assumed full anonymity on Facebook to avoid the potential dangers and/or discomfort that might arise from a conflict between their activities and opinions and the culture and norms of their community. Saudi Arabians gave three main reasons for completely hiding their identities on Facebook.

Firstly, full anonymity enables many Saudi females to avoid certain social restrictions that prevent them from joining online public spaces such as Facebook. Such social restrictions around female use of the internet in Saudi Arabia (Al-

Kahtani, et al., 2006; Doumato, 1992), also explains why anonymity is quantitatively more prevalent among Saudi female participants, compared to Saudi males and either gender in the Australian sample.

The second identified reason for using full anonymity on Facebook is related to the anti-government activities, sentiments or views of the user who would like to share these sentiments and views without repercussions.

A desire for sexual relations was the third identified reason for using full anonymity on Facebook in Saudi Arabia. Dating in Saudi Arabia is very difficult, and forming illicit sexual relationships is strongly forbidden by Islam and rejected by Saudi society (Siddiqui, 2008; Siraj, 2009; Souryal, Potts, & Alobied, 1994). Therefore, some Saudi people tend to hide their identities to be able to safely form such relationships online and to then transfer them to the offline realm.

We live in strong cultural society, where the perception of using the internet by girls is bad... Hiding my identity on Facebook enables me to escape such negative cultural view. (P10, female, public profile, SA)

I am anonymous on Facebook because I sometimes post political stuff against the government. (P277, male, public profile, SA)

[The reason behind anonymity on Facebook] for achieving desired relations with the opposite genders, most of them are illicit sexual relations. (P5, SA)

Overall, both partial and/or full anonymity is typically used to protect participants' privacy, by keeping their life details away from an unwanted audience and its associated potential dangers. This again suggests the validity of this proposed hypothesis that anonymity on Facebook mitigates and decrease the privacy concerns of self-disclosure. However, the constant fear that one's true identity could be discovered, and the on-going rumination about the potential negative consequences still fuel significant privacy concerns. This could explain the quantitative outcomes of this study that show that anonymity causes an increase rather than a decrease in privacy concerns.

Using fake identity helps me in protecting my privacy. However, I am still concerned of being identified. I am very cautious about that, revealing a small piece of my information like name or location might reveal who I really am. (P10, Anonymous Female, SA)

The negative consequences of discovering the real identity of an anonymous user is noted to be different for participants from Saudi Arabia and Australia. Discovering a user's real identity in Australia could typically cause relatively minor negative consequences. Simply knowing the identity of a person does not necessarily give access to personally sensitive information that could be used to harm them. In any case, the Australian government and various social structures typically help individuals to mitigate the negative impacts or consequences of this occurrence (such as the impact of criminal activities, financial ruin, and job loss).

There would be no much risk if they were identified. They would just know that is their profile but they still have to accept them to gain like full access to what she does. (P7, AU)

At the same time, in Saudi Arabia, there could be situations where simply identifying a person could have major negative consequences for him or her – even if personal information is not accessed. Furthermore, negative consequences are suggested to be harsher in Saudi Arabia and, in some cases, could be exacerbated by social, religious, traditional, and government expectations and/or requirements. Such negative consequence might include severe damage to one's reputation, social rejection, job loss, a jail term or (even) capital punishment. This is an obvious reason for significantly enhanced privacy concerns among anonymous Facebook participants in Saudi Arabia.

I would be in critical situation [if real identity discovered]; having strong hitting by my brothers, bad reputation to me and my family, and losing all important and nice things in my life for ever. (P10, Anonymous Female, SA)

One of the further quantitative outcomes of this study showed a significant negative correlation between the age of one's Facebook account and anonymity in both the Australian and Saudi Arabian samples (with the correlation being significantly higher in Saudi Arabia). This implies that anonymous accounts in both Saudi Arabia and Australia typically exist for only a short period and for a significantly shorter period in Saudi Arabia. This could be explained by the additional pressure on anonymous users and the potentially severe negative consequences of revealed identity (as discussed above), leading users to deactivate their accounts or not to use them for long periods.

Further, consistent with the qualitative findings, the quantitative data analysis showed a significant positive relation in the Australian sample between anonymity on Facebook and a private profile that is only visible to friends, and a significant negative correlation between anonymity and number of friends. This also supports the understanding that Australians, with their partial anonymity on Facebook, aim to hide their profile from public search and access, to prevent their identification through content and interaction with friends. They endeavour to safely connect with a few selected and trusted friends with whom they can behave normally, and disclose their real identity through the content that they share.

On the other hand, the quantitative analysis revealed that there were significant positive correlations in the Saudi sample between anonymity on Facebook and a public profile that is visible to all Facebook users and the number of friends. These results indicated that in Saudi Arabia, with full anonymity, people are not concerned about connecting with a large number of friends. Indeed, attracting this large number of friends might be the motivation for full anonymity. Public access is welcome so long as content that will help in identifying the user is not disclosed.

6.4.2 Perceived Secrecy

Secrecy on this research means keeping important information away from the system and their users. *Perceived* secrecy, on the other hand, is perception among users that information (mostly important things) can be kept safe in the system, and from other users. Hypothesis 7 in this study is about perceived secrecy – the ability to hide or keep certain private information purposely concealed from others – and suggested that the perception of secrecy decreases participants’ privacy concerns about disclosure on Facebook. However, this hypothesis was statistically rejected by both the Australian and Saudi Arabian samples of participants. In addition, a significant positive correlation between perceived secrecy and privacy concerns was obtained for the Saudi Arabian sample, while no significant evidence was found for the Australian sample.

Surprisingly, the qualitative findings of this study for both the considered samples did not support the quantitative findings. Both Australian and Saudi Arabian participants generally indicated that the perception of secrecy on Facebook minimises their privacy concerns. A Saudi Arabian and an Australian participant explained this relationship and how it helps to mitigate their privacy concerns.

I guess the point of that secrecy is if it's a secret to me then I don't put it anywhere and keep it to me. If I have personal information that I do not want anybody else to know, I would not put it on Facebook, and I can do that... My view on secrecy helps me in controlling my privacy, so if you look at my view on the secrecy and all those things is, if somebody wants to do something bad, if it is easier for them to do it somewhere else than it is to me, because I do not present a big target. (P1, AU)

I am the person who feels in control of sharing private information on Facebook; I can prevent myself of disclosing things that important to me. There are some people who cannot control that but not me...The ability to control give me more confident on protecting my privacy. (P5, SA)

In fact, obtaining conflicting results with the quantitative and qualitative studies is one of the big challenges associated with using a mixed method research approach (Creswell & Clark, 2010; Salehi & Golafshani, 2010). While the quantitative results offered general understandings, the qualitative study gave the researcher a greater chance to hear from the participants and to gain a deeper understanding of their views and explanations. Nevertheless, further investigation of this relationship between secrecy perception and privacy concern on Facebook, using a different scale and population sample is recommended.

6.5 CONCLUSIONS

This chapter presented the discussion and interpretation of the quantitative and qualitative results arising from the study of self-disclosure behaviour on Facebook. In particular, it discussed how self-disclosure on Facebook differs across the cultures of Saudi Arabia and Australia, highlighting the tendencies, similarities and significant differences between these two groups of participants. Many significant findings were presented, and offered a sophisticated understanding of self-disclosure behaviour on Facebook, including the types and the factors that affect such behaviour.

One of the important findings in this study is that Saudi Arabian participants seem to be more open and flexible in their relationships on Facebook, keener on meeting new people outside their offline society, and self-disclosing more in order to achieve and satisfy such relationships. The Australian participants, however, tended

to be more conservative, using their profiles mainly for connecting with strong and close offline contacts (for example, family and close friends), and self-disclosing more about their life events and changes in order to keep their offline friends updated. Australian participants were also noted to be more reluctant to accept new relationships on Facebook that are not already a part of their offline networks, considering that such relations are random and involve risks.

The literature largely suggests that Saudi Arabia is the most conservative culture in the world, where people in real life are greatly encouraged to connect with people from their own social group. These groups are mostly based on blood and location relationships, and place less emphasis on and interest in new outside relationships. Relationships in Saudi Arabia are also considerably regulated and restricted by many social norms that decide their validity and acceptability. In Australia, however, relationships in real life are more open, based more on personal interest and choice, and involve fewer social restrictions around their formation. People in Australia are also more welcoming of new connections outside of their family and blood relations.

The contrasting outcomes of this current study can be explained by perceiving Facebook as the platform for avoiding many offline social restrictions when forming desirable relationships in Saudi Arabia. Because there are fewer restrictions and customs in Facebook's virtual life compared to their real life, Saudi Arabian participants are motivated to change their behaviour on this forum, leading to an openness that is missing in their offline lives.

Australian participants, however, have fewer social restrictions when forming desirable relationships offline. Therefore, they generally prefer to establish their social relationships offline first, and mainly use Facebook for maintaining these desired relationships. Not only does this result signify the importance of the cultural characteristics of online relationships and associated self-disclosure, it also highlights how existing social restrictions offline and the ability to overcome them online, influences people's behaviour and their associated self-disclosure.

This chapter has also discussed the many cultural differences in the lives of Australian and Saudi Arabian participants that affect their behaviour on Facebook and their motivations for self-disclosure. This demonstrates the importance of having a more holistic view of how Facebook is used in different cultures. This is

particularly important, given that most current online social network studies deal with homogeneous populations. Furthermore, these populations are mostly of Western culture.

Chapter 7: Conclusions

7.1 CHAPTER SUMMARIES

This last chapter provides a summary of the thesis chapters. It then outlines the main theoretical contributions that this research adds to knowledge of self-disclosure behaviour on Facebook. It also suggests practical implications of the study results, discusses its limitations, and offers recommendations for future work.

This document consists of seven major chapters. Chapter 1 introduced the research problem, explained the motivations and the benefits of conducting this research, and addressed the major research questions: *How does self-disclosure on Facebook differ between Saudi Arabian and Australian cultures?* It addressed this major question by investigating the following sub-questions:

1. What is self-disclosure on Facebook?
2. What are the factors that influence self-disclosure on Facebook?
3. How does self-disclosure on Facebook, and the factors that influence it, differ between Saudi Arabian and Australian cultures?

Chapter 2 went on to examine the concept of self-disclosure, national culture, and online social networking. It also discussed cultural aspects and social norms in both Saudi Arabia and Australia, the target cultures in this study. The study's theoretical model with its seven hypotheses, which were suggested to influence self-disclosure on Facebook, was also developed in this chapter. Four factors were hypothesised as positively influencing (increasing) self-disclosure within Facebook: maintaining offline relationships, initiating new relationships, self-presentation, and reciprocity. Privacy concerns, on the other hand, were proposed as having a negative (decreasing) influence on self-disclosure. The two final hypotheses proposed that both anonymity and secrecy on Facebook mitigate the negative influence of the privacy concerns surrounding self-disclosure.

Chapter 3 outlined the approach taken in this study. Using sequential explanatory mixed methods, the study progressed through two main phases. The first phase was a quantitative study of a broad population of Australian and Saudi Arabian Facebook users (Saudi Arabia n=308, Australia n=351). The second phase was a qualitative study, with data collected from responses to open questions in the quantitative questionnaire (Saudi Arabia n=190, Australia n=201) and follow-up interviews with many of the interviewees who had participated in the first phase (Saudi Arabia n=12, Australia n=8). This chapter also explained how choosing this mixed method design was effective for answering the research questions, emphasising both its strengths and weaknesses.

Chapters 4 and 5 separately presented the results of the quantitative and qualitative research phases. Quantitatively, a general understanding of self-disclosure on Facebook across the two samples was obtained, including the level of self-disclosure, the factors that affect self-disclosure, and other demographically descriptive results concerning this phenomenon on Facebook. The qualitative study provided a good opportunity to hear from the participants in detail, and to confirm and further explain their quantitative responses. Participants indicated that there are several cultural aspects and social norms that affect their use of Facebook, and their associated self-disclosure.

In Chapter 6, both the quantitative and qualitative result were combined to create a complete and complex picture of self-disclosure on Facebook across the two cultures. Many significant findings that add useful knowledge to the research domain were discussed in this chapter. For example, the study suggests that Saudi Arabian participants seem to be more open and liberated on Facebook. This is illustrated by their higher tendency to connect with both weak and strong offline contacts, to welcome new Facebook relationships from outside their offline contacts, and to experience fewer privacy concerns from people outside their list of friends. The social life restrictions around forming desirable relationships offline in Saudi Arabia and the perception that Facebook is a means of overcoming such restrictions, is suggested to be the reason behind the observed openness of Saudi Arabian participants on Facebook.

Australian participants, however, seem to be more conservative on Facebook, presenting a higher tendency for connecting with their offline friends with whom

they have strong ties (such as family members or close friends), and being more reluctant to form new Facebook relationships outside of these offline contacts, considering such relationships as a threat to their information privacy. At the same time, Australian participants have fewer social restrictions on forming relationships offline; therefore, they generally prefer new relationships to be initiated offline first, and mainly use Facebook as a means of continuing their offline interactions.

Cultural variations and their associated motivations for using Facebook are also suggested as having a significant influence on participants' self-disclosure. For example, Saudi Arabian participants are significantly more likely to self-disclose in order to initiate friendships and to communicate with new friends on Facebook. This self-disclosure includes the sharing of more personally identifiable information and more information about personal interests. Reciprocity of self-disclosure is also suggested as a fundamental requirement for healthy relationships and fair dealing in Saudi Arabia, as taught by its religion. Saudi Arabians also consider that self-disclosure on Facebook is 'public by default', where they generally welcome public self-disclosure, are more likely to protect only important content (usually content that is socially unacceptable or inconsistent with the society's values), and are not concerned about disclosing information that is considered mundane.

Australian participants, however, self-disclose more to communicate with their offline friends, including both local and overseas friends, to update them on their personal offline activities and social life changes. They are motivated to present their everyday lives, including their successes and achievements, and show an increasing tendency to hide negative disclosures. The 'public nature' of Facebook and concerns that people outside their friends list (strangers) could view their information, was found to significantly decrease their self-disclosure, especially the disclosure of identifiable and more important information.

Both sample populations reported many other cultural aspects and social values that affected their behaviour and self-disclosure on Facebook. This demonstrates the importance of a holistic view of how Facebook is used in different cultures. This is especially the case given that the majority of current OSN studies have been generalised from the study of Western users.

7.2 CONTRIBUTIONS AND STRENGTHS OF THE STUDY

Overall, it is believed that the outcomes of this research advance our understanding of self-disclosure on Facebook. This understanding will inform its success, particularly in the development of user relationships – the major purpose of such applications. It offers three main insights into the research domain: an in-depth understanding of the information that people self-disclose on Facebook, an identification of the factors that influence (enhance or inhibit) self-disclosure, and an explanation of how self-disclosure on Facebook differs across cultures. The findings can be largely generalised to many online social networks that have similar services and functionality.

While the popularity of Facebook in Saudi Arabia and its extensive daily use is recognised, the research on Facebook and self-disclosure is particularly scarce in that country. In fact, Saudi Arabian culture has been described as one of the most conservative cultures in the world, with a unique blend of Islamic and Arabic traditions (Bjerke & Al-Meer, 1993; Burkhart & Goodman, 1998). Given this conservatism and cultural uniqueness, and the limited body of empirical studies that have examined online self-disclosure in Arab-Muslim countries, this study is an important contribution to the domain. Further, many findings of this research can be generalised to different Arab and Muslim societies that share many religious and racial aspects with Saudi Arabian society.

The cross-cultural comparison of participants from Saudi Arabia and Australia is another cultural strength of this study. There is a dearth of cross-cultural studies of users' behaviour on OSNs, especially when it comes to understanding their self-disclosure. Prior research on online self-disclosure was mostly conducted on homogenous populations (mostly Western), and assumes that users from different nations and background have the same motivations for, and perceptions of use, thus generalising their findings to other global users.

This current transnational study, on the other hand, significantly contributes to the cross-cultural awareness of self-disclosure on Facebook. It highlights the role and impact of culture on people's self-disclosure, and illustrates the importance of considering the users' national cultures when it comes to understanding their use of OSNs and their associated self-discourse. This understanding can provide OSN

designers with insights that can help them in determining culturally appropriate OSN standards.

At the methodological level, the study utilised an explanatory sequential mixed method design to develop a rich and in-depth understanding of self-disclosure on Facebook. Self-disclosure on OSNs such as Facebook is a phenomenon that is unlikely to be well-understood by using either purely quantitative or qualitative approaches. As the first attempt to employ this methodological design, this research was able to obtain extensive quantitative and qualitative data that lead to a richer and more complex understanding of self-disclosure behaviours at both individual and national levels, thus contributing to the current literature related to this research problem.

7.3 IMPLICATIONS FOR PRACTICE

Apart from theoretical contributions, this study also provides practical contributions to the providers and designers of Facebook and similar OSNs. It provides them with quantitative and qualitative findings about the information that people self-disclose on Facebook and the factors that influence (encourage/inhibit) this self-disclosure. Consideration of these findings will contribute to increasing user satisfaction and, ultimately, the success of OSNs.

For example, this study reveals that maintaining long-distance relationships, either interstate or overseas, is one of the most important motivations for using Facebook, especially among Westerners who have experience with emigration and/or immigration. The study also demonstrates that having overseas connections on Facebook significantly increases self-disclosure behaviour, which keeps their long-distance friends informed about their life events and mitigates the lack of physical connection. Giving more attention and special consideration to facilitating these types of relationships could contribute to greater use of OSNs and associated self-disclosure.

The study also found that maintaining tribal relationships is another important motivation and mechanism for using Facebook. This kind of motivation is more popular in Arab and Middle Eastern countries where the tribal system is very important to the way that people self-identify and structure their offline social

relationships. Using Facebook for creating tribal community ‘groups’ enables many Saudi Arabians to discuss tribal issues, exchange personal events and life changes, disclose their opinions, and support each other. Therefore, OSN designers should seriously consider this motivation for Facebook usage in such societies. According to Arab and Middle Eastern societies, having a similar family name and place of birth and/or residence is a strong indication that they belong to the same tribe. Therefore, offering Arab people a list of friends who have these same details will enhance their ability to easily maintain tribal relationships, and thus increase user satisfaction and interaction.

The study also found that people with many offline social restrictions perceive Facebook as place to overcome such restrictions; this perception was usually associated with Arab societies and would apply to similarly conservative societies. Therefore, the ability to remain anonymous on Facebook is one of the most important features enabling many Saudi Arabians (particularly females) to overcome certain social life restrictions. Without such anonymity, many participants would not be able to join Facebook or would be taking risks in using their real identity.

Currently, most OSN applications, such as Facebook, are considered nonymous (the opposite of ‘anonymous’) online settings (Hyllegard, et al., 2011; Marichal, 2013; Zhao, et al., 2008), where users are required to submit several identifiable details in order to benefit from an application’s social functions. While the results of this study support these prior studies, it also highlights the importance of anonymity in overcoming the social restrictions in Saudi Arabian and other Arab societies. It thus suggests that OSN providers should consider that the ability to remain anonymous (by providing false identifiable details) is a necessary requirement if many socially anxious people are to join OSNs and communicate with people with whom they could not otherwise communicate.

Reciprocity, the motivation to interact with people who interact with us, was identified as a significant predictor of self-disclosure on OSNs and their associated relationships development. The study also found that having a larger number of friends on Facebook was associated with a lower rate of reciprocity, because an expansive network generates a large amount of content. This makes reciprocating with all friends difficult, and results in the inability to interact with close friends and others who interact with us. OSN designers should consider this issue in order to

increase people's self-disclosure and relationships success. Such consideration might include providing users with features that first display the content that belongs to one's most important friends. This could be determined by the regularity of communication or higher rates of interaction with our content.

This study identified two different types of privacy concern within Facebook. First is the concern of 'strangers' finding personal information and misusing it, which is associated more with Australian and Western societies. The second is the concern of 'offline friends' finding personal information that is inconsistent with their beliefs and with societal social norms. This type of concern is associated more with conservative societies that have greater social restrictions, such as Saudi Arabia and other Arab nations. Prior work is highly focused on the 'stranger danger' concern. The results of this research, however, offer OSN providers and designers with useful information about both types of concern. It also provides many examples of the expected risks associated with each concern, and offers strategies and mechanisms to control these two privacy issues and mitigate their potential risks.

The study also has cultural implications. It demonstrated that national culture has an overall influence on the use of Facebook. It recommends that OSN providers and designers consider users' national cultures when developing their applications in order to gain successful global growth. The cross-cultural comparison also revealed that people have different motivations for self-disclosure on Facebook, thus offering OSN providers and designers with new insights into factors that influence Arab and Western users' disclosure. Such insights will help them to make informed management and development decisions in terms of choosing standards that comply with cultural differences. Currently, the lack of cross-cultural design considerations has meant that a number of popular domestic OSN services have failed to retain their overseas users.

The study has two main methodological implications. First, the recognised "dearth of mixed methods research in information systems" is explained by the lack of available guidelines and instructions for conducting such studies in this field (Venkatesh, et al., 2013, p.1), especially in terms of the sequential explanatory mixed method design used for this research (Sheperis, et al., 2010). This empirical study provides information system researchers with practical guidelines and instructions for conducting a sequential explanatory mixed method design. It addressed important

issues related to this design, including the processes related to conceptualizing, validating, implementing, analysing and reporting. This study also offers a demonstration of the feasibility of integrating multiple methods in order to further the theories of, and to understand the phenomena in information systems. It is also hoped that, by using sequential explanatory mixed methods for this research, information system researchers will be encouraged to employ it in their work.

The second methodical implication is related more to Saudi Arabia and other similar contexts, where females have high cultural restrictions that prevent them from participating in academic research. For the majority of Saudi women, the revelation of their true identity (including their name, face or voice) is their main concern and a significant reason for rejecting such participation. This study offers researchers some guidelines and recommendations for suitable methods that can be used to overcome such issues in order to be able to collect data from Saudi Arabian females. This study shows that online self-administration questionnaires and online written text interviews are the most effective methods for guaranteeing the participants' anonymity (even with regard to the researchers), thus assuring them that none of their identifiable information has been revealed.

7.4 STUDY LIMITATIONS AND DIRECTIONS FOR FUTURE WORK

As with most studies, this study has its limitations. These limitations, along with recommendations for future research directions, are discussed below.

First, even though the proposed model was developed after an extensive review of the literature, other factors that affect people's self-disclosure on Facebook might have been overlooked. Thus, future studies could attempt to identify additional factors and theories related to this domain; for example, they could focus more on psychological aspects such as participants' propensity for seeking attention, seeking popularity, or for being extroverted/ introverted.

Second, the study data was collected through a self-reporting survey, which might be subject to bias. The researcher attempted to reduce this limitation by conducting individual interviews to follow up on the findings from the self-report questionnaires in order to gain a deeper understanding of the participants' self-

disclosure behaviours on OSNs. Future research might include other sources of data such as content analysis of the generated content.

Both the breadth and depth of self-disclosure were combined into one dimension called 'self-disclosure'. Combining these sub-dimensions provided a more reliable and valid scale for both samples, compared to their separate measurement. In terms of future research, however, it might be useful to separately investigate their influences, and to determine which factors are associated more with the breadth of self-disclosure and which are more associated with its depth.

The self-presentation factor in this research focussed on the intention to control others' impression through presenting personal achievements and success. Future research might consider other types of information that people use for self-presentation on OSNs, such as information about personal fitness or specific skills.

While secrecy is suggested to mitigate privacy concerns around self-disclosure on OSNs, the suggestion is rejected quantitatively, yet supported qualitatively. The obtaining of inconsistent results – and, therefore, not knowing which is the valid result – is one of the big challenges associated with using the mixed methods approach (Creswell & Clark, 2010; Salehi & Golafshani, 2010). Thus, this proposed relationship between secrecy and privacy concerns might require further research that uses different scales and population samples.

In Saudi Arabia, the quantitative data indicated that there were no significant gender differences in self-disclosure. Females in Australia, on the other hand, were found to self-disclose more than males. The study also showed that a higher percentage of Facebook respondents in Australia are female (representing 65% of the total participants), whereas in Saudi Arabia there is a higher percentage of males (representing 74% of the total participants). A recent study conducted by Yellow™ also found that in Australia, females use social media more than males (Yellow™ Social Media Report, 2013). In Saudi Arabia, it is expected that a higher percentage of males use online social networks than females, due to the differences in gender roles in that country, where the use of the Internet by males is more acceptable than its use by females (Al-Kahtani, et al., 2006; Pengiran-Kaharab, et al., 2010). Future research could consider the equal representation of both genders.

The current study investigated the self-disclosure on Facebook of participants from Saudi Arabia and Australia. To achieve greater generalisability, future research would benefit from the consideration of a greater diversity of cultural context; for example, this could include research on the OSN self-disclosure of people from more complex and unique cultures such as African or East Asian countries.

The design for the qualitative interviews was not directly included any of the social or cultural parameters that have been discussed in section 2.2.2 and section 2.2.3. However, designing unstructured questions, and interviewing participants from two different nations (Saudi Arabia and Australia) was a way of investigating the cultural differences between these two samples. Future research might consider this limitation, including some social and culture parameters to the design of the interview.

Future research might include other cultural or cross-regional factors that affect self-disclosure on OSNs. Such factors might include collectivism vs individualism, power distance, uncertainty avoidance, femininity vs masculinity. With some Arabic and Islamic nations the future research might also consider other social values and norms such as the tribe system, gender segregation and gender rules, 'evil eye', religion, family honour, or immigration system.

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Appendices

Appendix A: Ethics Clearance for the Quantitative and Qualitative Study

Ethics Application Approval - 1100001179

QUT Research Ethics Unit

Sent: Tuesday, 20 November 2012 12:03 PM

To: Hashem Abdullah A Almakrami

Cc: QUT Research Ethics Unit

Attachments:UHRECSTANDARDCONDITIONSOFA~1.DOC (43 KB)

Dear Mr Hashem Abdullah A Almakrami

Project Title: The role that social networks have in influencing self-disclosure: a study of using Facebook in Saudi Arabia and Australia

Ethics Category: Human - Low Risk
Approval Number: 1100001179
Approved Until: 20/11/2015 (subject to receipt of satisfactory progress reports)

We are pleased to advise that your application has been reviewed by the Chair, University Human Research Ethics Committee (UHREC) and confirmed as meeting the requirements of the National Statement on Ethical Conduct in Human Research (2007).

I can therefore confirm that your application is APPROVED.
If you require a formal approval certificate please respond via reply email and one will be issued.

CONDITIONS OF APPROVAL

Please ensure you and all other team members read through and understand all UHREC conditions of approval prior to commencing any data collection:

> Standard: Please see attached or go to
www.research.qut.edu.au/ethics/humans/stdconditions.jsp
> Specific:

Decisions related to low risk ethical review are subject to ratification at the next available UHREC meeting. You will only be contacted again in relation to this matter if UHREC raises any additional questions or concerns.

Whilst the data collection of your project has received QUT ethical clearance, the decision to commence and authority to commence may be dependent on factors beyond the remit of the QUT ethics review process. For example, your research may need ethics clearance from other organisations or permissions from other organisations to access staff. Therefore the proposed data collection should not commence until you have satisfied these requirements.

Please don't hesitate to contact us if you have any queries.

We wish you all the best with your research.

Kind regards

Janette Lamb on behalf of the Chair UHREC
Research Ethics Unit | Office of Research | Level 4 88 Musk Avenue,
Kelvin Grove | Queensland University of Technology
p: +61 7 3138 5123 | e: ethicscontact@qut.edu.au | w:
www.research.qut.edu.au/ethics/

[Reply](#) [Reply All](#) [Forward](#)

Ethics Variation -- 1100001179

QUT Research Ethics Unit

To: Hashem Abdullah A Almakrami

Cc: Janette Lamb

Thursday, 15 August 2013 2:21 PM

Dear Mr Hashem Abdullah A Almakrami

Approval #: 1100001179
 End Date: 20/11/2015
 Project Title: The role that social networks have in influencing self-disclosure: a study of using Facebook in Saudi Arabia and Australia

This email is to advise that your variation has been considered by the Chair, University Human Research Ethics Committee.

Approval has been provided to conduct follow-up interviews with some Facebook users, ie15-20 users to discuss some of the aspects in the questionnaire.

PLEASE NOTE:
 RESEARCH SAFETY -- Ensure any health and safety risks relating to this variation have been appropriately considered, particularly if your project required a Health and Safety Risk Assessment.
 CONFLICTS OF INTEREST -- If this variation will introduce any additional perceived or actual conflicts of interest please advise the Research Ethics Unit by return email.

Please don't hesitate to contact us if you have any questions.

Regards

Janette Lamb on behalf of Chair UHREC
 Research Ethics Unit | Office of Research
 Level 4 | 88 Musk Avenue | Kelvin Grove
 p: +61 7 3138 5123
 e: ethicscontact@qut.edu.au
 w: <http://www.research.qut.edu.au/ethics/>

Appendix B: The Questionnaire Content

Modified items	Dropped items
Part1: Demographics and background characteristics	
1. Age <ul style="list-style-type: none"> • 18-24 • 25 -29 • 30-34 • 35-39 • 40-44 • 45 or above 	2. Gender <ul style="list-style-type: none"> • Male • Female
3. Marital status <ul style="list-style-type: none"> • Single • Married / in a relationship 	4. Nationality (this survey is open only for those who identify themselves as Australians or Saudi Arabians): <ul style="list-style-type: none"> • Saudi Arabian • Australian • Others
5. What is the highest degree or level of school you have completed? If currently enrolled, mark the previous grade or highest degree received. <ul style="list-style-type: none"> • Less than high school • High school or equivalent • 1 - 3 year college degree (for example, Some college or technical school) • Bachelor degree • Master degree • Doctoral degree 	6. How would you describe your current employment status? <ul style="list-style-type: none"> • Student • Government employee • Private sector employee • Other (includes Self-employed, Out of work and looking for work, Out of work but not currently looking for work, Homemaker, Retired Unable to work)
Part2: Attitude toward and usage of Facebook	
7. Do you currently have a Facebook account? <ul style="list-style-type: none"> • Yes • No 	
8. If no, why not? <ul style="list-style-type: none"> • Do not have regular computer access • Do not have time • Not interested • Have never heard of Facebook • Other <p>If you answered “Yes” to question 7, please continue the survey. If you answered No, then thank you for your time. You may exit the survey</p>	
9. Approximately, how long have you had a Facebook account? <ul style="list-style-type: none"> • 1 year or less • 2 years • 3 years • 4 years • 5 years • 6 years or more 	
10. On average, approximately how many minutes per day do you spend on Facebook? [If you login to your account multiple times per day, please select the total combined time you spend on Facebook] <ul style="list-style-type: none"> • 10 minutes or less • 10 - 30 min • 31 – 59 min 	

- 1-2 hours
- 3-4 hours
- More than 4 hours

11. Approximately, how many Facebook friends do you have?

- 50 or less
- 51–100
- 101–150
- 151–200
- 201–300
- 301–400
- 401–600
- More than 600

12. Approximately, how many Facebook Groups do you belong to?

- 0
- 1-3
- 4-7
- 8-11
- 12 or more

13. Who do you allow to see your Facebook page?

- All Facebook users
- Only my friends

Part 3: Self-disclosure

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

Breadth

- Breadth 1: I often discuss my feelings on Facebook
- Breadth 2: I often write about myself on Facebook
- Breadth 3: I keep my friends updated about what is going on in my life through Facebook
- Breadth 4: Based on my profile, it would be easy to my Facebook friends to find out my personal interests, habits, and preferences

Depth

- Depth 1: My Facebook activities (for example, photos, status update, videos) are an accurate and complete representation of my true self and thoughts
- Depth 2: I often share my honest and deepest feelings on Facebook
- Depth 3: I feel I can share almost anything on Facebook
- Depth 4: I often post things about my relationships and private life on Facebook
- Depth 5: I feel closely connected to my Facebook friends
- Depth 6: My interactions on Facebook are generally shallow (R)
- Depth 7: I would never write anything intimate or personal about myself on Facebook. (R)

Part 4: Maintaining an offline relationship

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

- OfflineRelation 1: I use Facebook to stay in touch with people I have met face-to-face
- OfflineRelation 2: I use Facebook to stay in touch with my old friends
- OfflineRelation 3: I use Facebook to stay in touch with friends I may not get to see very often face-to-face

Part 5: Relationship Initiation

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

28. RI 1: I use Facebook to connect to new people who share my interests

29. RI 1: I get to know new people through Facebook

30. IR3: Facebook helps me to expand my network

Part 6: Self-presentation

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

31. SP1: I am eager to post content on Facebook about my achievements or accomplishments

32. SP2: I express the same attitudes as others on Facebook so they will accept me.

33. SP3: I like posting content on Facebook that will give others a good impression of me

Part 7: Reciprocity

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

34. Reci1: The principle of share and receive (give and take) is important in Facebook community

35. Reci2: When I see my friends being active on Facebook (for example, publishing content, comments), I am encouraged to do the same

36. Reci3: When other interact with my Facebook content (for example, commenting, sharing, liking etc.), I tend to interact with their content

Part 8: Privacy Concerns

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

37. PC1: I am concerned that personal information I post on Facebook could be misused.

38. PC2: I am concerned that a person can find private information about me on Facebook.

39. PC3: I tend to avoid posting personal information on Facebook, because of what others might do with it.

40. PC4: I am concerned about posting personal information on Facebook, because it could be used in a way I did not foresee.

Part 9: Anonymity

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

41. Anonymity 1: To what extent do you think you are anonymous on your Facebook profile?

42. Anonymity 2: What name do you use for yourself on Facebook? (R)

- Random name (for example, abcd fgh)
- I use a fake name (e.g., John Philips, which sounds like a real name but is not your real name)
- I use a pseudonym (for example, graveyard or horse-lover)
- I use a partial real name (like your real first name, or last name, or initials only)
- I use my full real name

43. Anonymity 3: What type of profile photo do you use on Facebook (upper-left corner)? (R)

- I do not use any photo
- I use a picture that is obviously fake (for example, a borrowed picture of a celebrity or other image)
- I use a picture that is not obviously fake (for example, readers may mistake it for a real photo of me)
- I use a partial actual picture (e.g., my real picture but with my face doctored or hidden in the shadow)
- I use an actual picture of myself or myself with others (for example, family, friends, classmates)

Part 10: Secrecy

Please identify how much you agree or disagree with each statement.

Scale: 1. Strongly disagree - 2. Disagree - 3. Average - 4. Agree - 5. Strongly agree

- | |
|---|
| 44. Secrecy 1: I think it is a good idea to keep my personal information a secret and not published on Facebook |
| 45. Secrecy 2: I believe I could refuse to give information to Facebook that I think is too personal |
| 46. Secrecy 3: I feel I could keep some of my personal information secret on Facebook when I feel uncomfortable making it available |

Part 11: Open-ended question

- | |
|---|
| 47. Some people like to share a lot of information about themselves on Facebook while others do not. What do you think are the reasons for the difference |
|---|

(R) Indicates that the score was reversed.

Appendix C: Interview Content

Interview Questions:

1) Self-disclosure

1. How often do you use Facebook? And how do you tend to use it? What do you use it for mostly?
2. Would you say your Facebook profile reveal a lot about you? If so/not why?
3. Tell me what kind of content do you usually share on Facebook; is that content usually about you (for example,offline activities, social events, feelings, opinions etc.)?
4. Do you often share things about your intimate relationships or private life with your Facebook friends? If so/not why?

2) Offline Relationships

5. Does your Facebook network (friends) include any offline friends – the people you have met face to face first? (examples)
6. What sort of things do you communicate or share with this type of friends?

3) Initiating relationships

7. Do you have any friends that you only know through Facebook? And, if so, what motivates you to build these types of friendships?
8. What sort of things do you communicate or share with these friends?

4) Self-presentation

9. Do you tend to share things that might be related to your successes or achievements on Facebook? Or, do you tend to hide them? Why is that?
10. What things you try to avoid posting on Facebook and why?

5) Reciprocity

11. When your Facebook friends interact with the content that you post on Facebook (for example,like, comment on, share, provide opinion, etc.), does that motivate you to do the same and interact with the content that they post on Facebook? If so/not why?

6) Privacy concern

12. Are you concerned at all about giving away too much information on Facebook? If so/not why? (examples of potential risks and negative consequences)
13. Do you think your concerns minimise the amount or the type of content that you share about yourself on Facebook? If so/not why?
14. Do you ever take active steps to preserve your privacy on Facebook?

7) Anonymity

15. Do you take any step to hide your identity on Facebook, and if so what is the motivation for that?
16. What kind of risks or consequences that you might face if you are identified?

8) Secrecy

17. Do you feel you could keep some of your personal information secret on Facebook when you feel uncomfortable making it available?
18. Do you have any other thoughts about what motivates people to share things about the self on Facebook that you might like to talk about with me today?

Appendix D: The Online Invitation

The Arabic Invitation

دعوة للمشاركة في دراسة حول استخدامات الشبكات الإجتماعية – الفيس بوك

فرصة للفوز ب اي باد2 (16 قيقا بايت واي فاي)

الأخوات الأكارم

السلام عليكم ورحمة الله وبركاته وبعد،

مرفق رابط الاستبانة الخاصة ببحثي المعنون — (دور الشبكات الإجتماعية في الكشف عن الذات: دراسة عن استذ الفيس بوك في السعودية و استراليا) وذلك للحصول على درجة الدكتوراة في تقنية المعلومات.

[/http://survey.qut.edu.au/f/176984/1699](http://survey.qut.edu.au/f/176984/1699)

الإستبانة تحتوي على عناصر شيقة حول استخداماتنا اليومية للفيس بوك. الوقت المتوقع للإجابة لن يتجاوز العشر دة بإذن الله. فإذا كنت من مستخدمي الفيس بوك أرجوا الإجابة ودعوة زملائك ومعارفك بتمرير هذه الرسالة لهم اما طريق نشرها بصفحتك في الفيس بوك، او ارساها لكترونيا لهم.

مشاركتك في الاستبيان ستكون مجهولة الهوية، فإجاباتك لن تتضمن اي معلومات والتي يمكن من خلاها تحديد هو الحقيقية.

كما ان انهائك للإستبانة سيخولك في الدخول في مسابقة سحب على ايباد2 (16 قيقا بايت واي فاي)

الشكر مقدماً لكم لتعاونكم

أخوكم: هاشم عبدالله المكرمي

جامعة كوينزلاند للتقنية – برزبن – أستراليا

hashem.almakrami@student.qut.edu.au

[+61432380888](tel:+61432380888)

تمت الموافقة على إجراء البحث من قبل لجنة أخلاقيات البحث بالجامعة بالرقم (1100001179)، فإذا كانت لديك أية ملاحظات على أخلاقيات البحث تستطيع الاتصال بلجنة أخلاقيات البحث في الجامعة:

ethicscontact@qut.edu.au

[+61731385123](tel:+61731385123)

The English Invitation

Invitation to participate in a research study investigating the role that social networks have in influencing self-disclosure

Opportunity to win a free iPad2, 16 GB WiFi

Dear Sir or Madam,

My name is Hashem Almakrami; I am a doctoral candidate at Queensland University of Technology, Brisbane, Australia. I am conducting a research project investigating the role that social networks have in influencing self-disclosure of information on the web.

I invite volunteers to participate in a quick (10 – 15 minute) online survey.

To participate in this survey, you must meet the following criteria:

- Identify yourself as either Australian or Saudi Arabian;
- be 18 years old or over;
- have a Facebook account

Your contribution will assist the research team to better understand the relationship between social networking and self-disclosure.

This is an anonymous survey. Your participation will not include any identifiable or personal information.

All the participants completing the survey will be offered an opportunity to enter into a free prize draw to win an iPad2, 16 GB WiFi.

Please click on the link below for further information about the study and to complete the online survey

<http://survey.qut.edu.au/f/176934/107f/>

Appendix E: Participant Information

The role that social networks have in influencing self-disclosure: a study of Facebook use in Saudi Arabia and Australia

QUT Ethics Approval Number 1100001179

RESEARCH TEAM

Principal Researcher:	Hashem Almakrami, Doctor Professional student, Queensland University of Technology (QUT)
Associate Researchers:	Dr Stephen Harrington, Principal Supervisor; Dr Taizan Chan, Associate Supervisor; Associate Professor Richi Nayak, Associate Supervisor, QUT

DESCRIPTION

Social networks are defined as online spaces that allow users to sign up and represent themselves via a personal profile, which is used in creating online communities and relationships among people who share common interests, backgrounds, and activities. Facebook is one of the most popular social network sites.

This study intends to investigate the relationship between social network use and self-disclosure, in particular how self-disclosure has been influenced by the advent of social networks. It is hypothesized that social networks' influence on self-disclosure may vary between national cultures (self-disclosure is a phenomena that varies between cultures anyhow). Therefore, this study will incorporate data from both Saudi Arabia and Australia.

You are invited to participate in this research project because you:

1. Are 18 years old or over.
2. Identify as either Saudi Arabian or Australia.
3. Have a Facebook account that they use at least 4 times a month.

PARTICIPATION

Your participation will involve completing an anonymous on-line survey with Likert scale answers (strongly agree – strongly disagree style scale) as well as some open-ended questions. Participation in this survey will take approximately 10-15 minutes of your time.

The survey will discuss the following topics:

- How you use Facebook.
- The types of information that you share on Facebook.
- The factors that could motivate or inhibit you to disclose more or less personal information on Facebook.

Answering most of the survey questions are optional, however the survey also includes seven questions that are required to be answered. The first two required questions are used to check the eligibility for participation; and if you won't meet the requirements you will be asked to exit the survey. The other five required questions are used to direct you to the next sub-question based on your answer.

Your participation in this project is entirely voluntary. If you do agree to participate, you can withdraw from the project at any time prior to submission of the questionnaire without comment or penalty. Your decision to participate, or not to participate, will not impact you in anyway. There will be an opportunity to enter into a free prize draw to win an 'iPod' for completing the survey.

EXPECTED BENEFITS

The primary benefit for this study is that it contributes to the theory of self-disclosure and in particular how self-disclosure has been influenced by the advent of social networks. It is not expected that this research will benefit you in any way. However, self-disclosure has been identified as an important driver for successful social network sites so the findings of this research may, at some stage, improve the social network experience.

RISKS

There are no risks beyond normal day-to-day living associated with your participation in this project.

PRIVACY AND CONFIDENTIALITY

All comments and responses are anonymous and will be treated confidentially. Answering this survey will not require you to provide any personal or identifiable information. Any data collected as part of this research will be stored securely as per QUT's Management of research data policy.

We plan to publically present and publish the results of this research as journal articles and conference proceedings. However, information will only be provided in a form that does not identify you.

Optionally, you may provide your contact details to enter a free prize draw, however, these details will be held completely separately from the research data.

CONSENT TO PARTICIPATE

Submitting the completed online questionnaire is accepted as an indication of your consent to participate in this project.

QUESTIONS / FURTHER INFORMATION ABOUT THE PROJECT

If have any questions or require any further information please contact one of the research team members below.

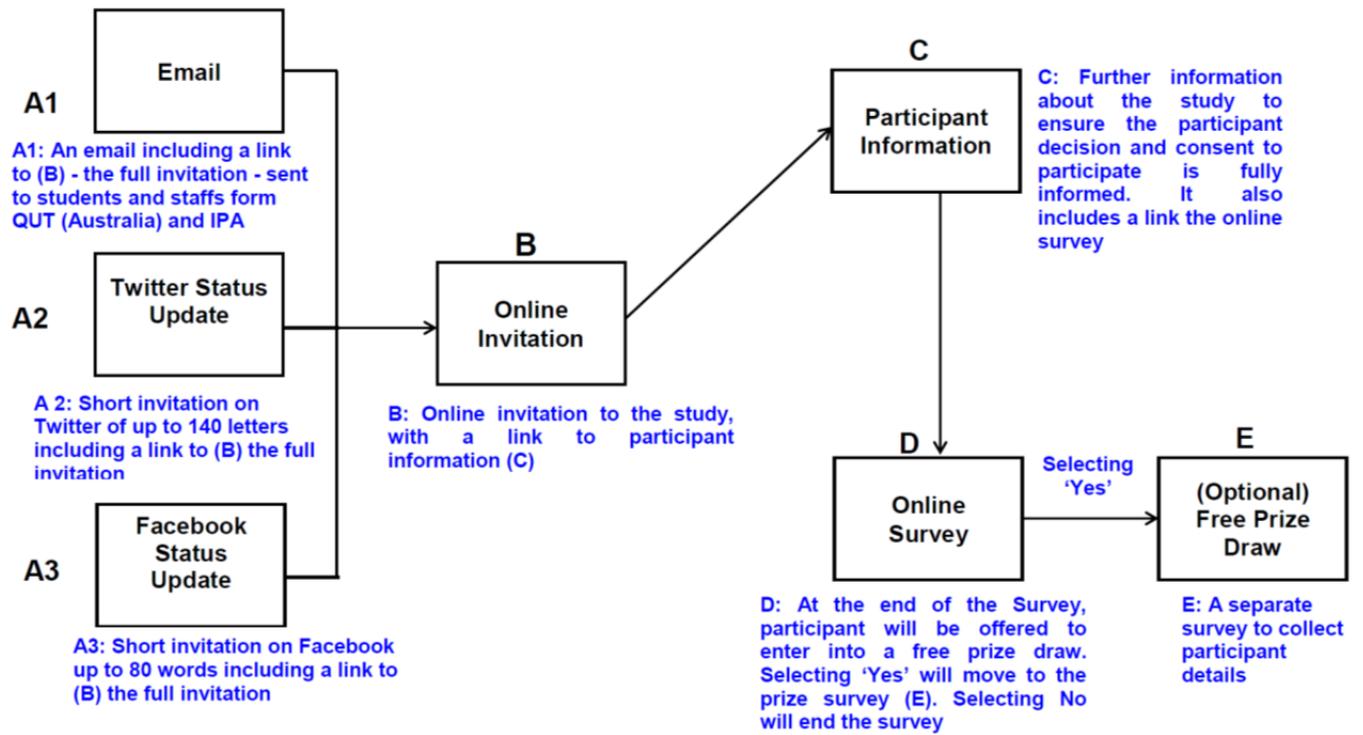
Hashem Almakrami	Dr Stephen Harrington	Dr Taizan Chan	A/ Prof Richi Nayak
+61 432 380 888	+61 7 3138 8177	+61 7 3138 1214	+61 7 3138 1976
hashem.almakrami@student.qut.edu.au	s.harrington@qut.edu.au	t.chan@qut.edu.au	r.nayak@qut.edu.au

CONCERNS / COMPLAINTS REGARDING THE CONDUCT OF THE PROJECT

QUT is committed to research integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the project you may contact the QUT Research Ethics Unit on +61 7 3138 5123 or email ethicscontact@qut.edu.au. The QUT Research Ethics Unit is not connected with the research project and can facilitate a resolution to your concern in an impartial manner.

Thank you for helping with this research project. Please keep this sheet for your information.

Appendix F: Questionnaire Dissemination Approaches



Appendix G: Member Checking Process

Australian participants

Reply Reply All Forward

The transcription for the recorded interview to verify your responses prior to final inclusion

Hashem Abdullah A Almakrami

To: [REDACTED]
Cc: Stephen Harrington
Attachments: 1st [REDACTED].docx (41 KB) [Open as Web Page]

Monday, 16 September 2013 1:44 PM

Hello [REDACTED]

I would like firstly thank you for participating in the requested follow up interview. As we mentioned on the participation sheet, the transcription for the recorded interview will be available for you (attached) to verify your comments and responses prior to final inclusion.

If we do not hear any response from you within 7 days, then we will assume that you are satisfied with the transcript, and agree to its inclusion in the study.

Thank you again for your time and we appreciate your cooperation

Kind regards
 Hashem

From: [REDACTED]
Sent: Monday, 16 September 2013 2:17 PM
To: Hashem Abdullah A Almakrami
Subject: RE: The transcription for the recorded interview to verify your responses prior to final inclusion

Hi Hashem

I don't require any amendments.
 Good luck.

Regards

[REDACTED]

Saudi Arabian participants

Hashem Abdullah A Almakrami

From:
Sent:
To:
Subject:
Attachments:

Hashem Abdullah A Almakrami
Sunday, 22 September 2013 4:54 PM
[Redacted]
شكر وعرفان وسرد لكامل المقابلة
المشارك رقم 2.docx

الاستاذ المحترم

السلام عليكم ورحمة الله وبركاته

اشكر اخي الكريمه ثابته لوقتكم الثمين وإثراء بحثي بالمعلومات القيمة، لكي مني جزيل الشكر
طبعاً اخي الكريمه مرفق نسخة من المقابلة بعد تنقيتها واستبعاد الغير موضوعي فيها، ارجو منك الاطلاع عليها وافادتي ما اذا كان هناك شيء انتي غير
راضية عنه فيه، مع العلم انه لن يتم ذكر اسم (الاسم المجهول) في البحث نفسه وإنما يرمز لك بإبني من السعودية.
التعديل ليس قاصر على الحذف بل أيضاً الاضافه اذا كان لديك اي اضافة واحببتي بمشاركتها
شيء اخر اخي الا وهو وجود سؤال اخير مرفق في اخر هذه الرساله لم يسعفنا الوقت للاجابه عليها، ارجو اذا امكنتك وفي حالة وجود الوقت المناسب
لك محاولة الرد عليها ومن ثم الرد بالوثيقة كاملة.

Hashem Abdullah A Almakrami

From:
Sent:
To:
Subject:
Attachments:

[Redacted]
Sunday, 22 September 2013 6:42 PM
Hashem Abdullah A Almakrami
Re: شكر وعرفان وسرد لكامل المقابلة
[Redacted]

صباح الخير استاذ هاشم المكرمي

اشكرك علي مجهودك والله يسهل دراستك وتحصل على الدكتوراه , وأنا دائما حريصة على دعم أي انسان يعمل على خدمة
المجتمع أعلشان كذا حبيت اشارك في الاستبيان وبكل صراحة وبالتوفيق هاشم
تم التعديل , والاضافة , الملف بالمرفات

Appendix H: Examples of categorising and coding the qualitative data

The screenshot displays the MAXQDA 11 interface with the following components:

- Document System:** A tree view showing the project structure. The 'Aussie' folder is selected, containing sub-folders for '7th', '6th', '5th', '4th', '3rd', '2nd', and '1st'. The '1st' folder is currently active.
- Code System:** A hierarchical list of codes. The 'Self-disclosure' code is selected, with sub-codes like 'Offline relationships' and 'Away family & frinds'.
- Document Browser:** Shows the text of the selected document. It contains several paragraphs of text, with some segments highlighted in yellow. The text includes questions and responses related to Facebook privacy and sharing personal information.
- Retrieved Segments:** A list of segments extracted from the document, each associated with a specific code from the Code System. For example, a segment about Facebook friends is linked to the 'Offline relationships' code.

The screenshot displays the MAXQDA 11 interface with the following components:

- Document System:** A tree view showing the project structure. The 'Saudi' folder is selected, containing sub-folders for '13th', '12th', '11th', '10th', '9th', '8th', '7th', '6th', '5th', '4th', '3rd', '2nd', and '1st'. The '6th' folder is currently active.
- Code System:** A hierarchical list of codes. The 'Self-disclosure' code is selected, with sub-codes like 'Offline relationships' and 'New Friends'.
- Document Browser:** Shows the text of the selected document in Arabic. It contains several paragraphs of text, with some segments highlighted in yellow. The text discusses social interactions, privacy, and relationships.
- Retrieved Segments:** A list of segments extracted from the document, each associated with a specific code from the Code System. For example, a segment about social interactions is linked to the 'Social courtesy / Self-disclosure' code.