

PERCEPTIONS AND PRACTICE OF GOV2.0 IN ENGLISH LOCAL GOVERNMENT

by

THOMAS ALEXANDER BARRANCE

A thesis submitted to the University of Birmingham for the degree of
DOCTOR OF PHILOSOPHY

Institute of Local Government Studies
School of Government and Society
College of Social Sciences
University of Birmingham
September 2015

UNIVERSITY OF
BIRMINGHAM

University of Birmingham Research Archive

e-theses repository

This unpublished thesis/dissertation is copyright of the author and/or third parties. The intellectual property rights of the author or third parties in respect of this work are as defined by The Copyright Designs and Patents Act 1988 or as modified by any successor legislation.

Any use made of information contained in this thesis/dissertation must be in accordance with that legislation and must be properly acknowledged. Further distribution or reproduction in any format is prohibited without the permission of the copyright holder.

Prior Publication

Part of this thesis has been published in Local Government Studies.

T. Barrance (2015), Framing Gov2.0: A Q-methodological Study of Practitioners' and Local Politicians' Opinions. Volume 41, Issue 5, 2015, pages 695-712.

Abstract

Gov2.0 is an emerging and contested subject that offers a radical alternative to the construction of relationships between residents and their local authorities. This research investigates the practice of Gov2.0 and practitioners' perceptions of this in English local authorities. The research combines analysis of practices through a content analysis of 50 principal local authority web sites and use of Q-methodology to identify the shared subjective frames of reference of 52 local government actors.

The literature surrounding Gov2.0 is found to be lacking a clear theoretical model. A model is presented as a basis for an exploration of the practice and common understanding of the subject. Levels of inconsistency in adoption of Gov2.0 that are not defined by political party control, geography or authority governance structure are identified. The results of the Q-methodology examination of individual perspectives are discussed, and four frames of reference which provide a foundation for variations of practice observed are proposed.

This research offers a theoretical model for understanding Gov2.0; it identifies four distinct frames of reference held by practitioners regarding Gov2.0 and presents an analysis of the range of adoption practices within English local authorities.

Acknowledgements

I would like to acknowledge and thank all the people without whom this thesis would not have been possible. In particular I would like to take the opportunity to thank my supervisors Professor Chris Skelcher and Dr Stephen “Jeff” Jeffares, who have had the patience to support me through this project. They listened to my thoughts and ideas without judgement and helped me to see the errors in my thought processes, guiding and helping me to explore the subject and scholarship in general.

I would like to thank a number of members of staff in the London Borough of Hackney who understood the possibilities of Gov2.0 and conspired with me on a number of occasions to make them a reality, in particular Gareth Wall and Martin Calleja. Without the generous contributions of time and opinion from the nameless interviewees who took part in the research, this thesis would not have been completed, thank you.

I also owe an enormous debt to my Cathy, and Henry, who have put up with my working on this thesis over evenings and weekends. You have given me the strength to carry on, and have had the patience to allow me to undertake this journey. Much has suffered as a result of this work, not least the decoration of the house. I know I have a lot of work to do now! My friend and running buddy Gareth who has patiently listened to me on our Wednesday nights and on a host of other occasions, now I am running out of excuses to join you on a triathlon! Finally, my parents, Anne and John, you gave me a passion for the political and the desire to explore. Thank you all.

Contents

CHAPTER ONE: PROBLEMS AND PARADOXES	1
1.1 Introduction	1
1.2 Administrative and technological traditions in British government.....	6
1.3 Adoption of Web2.0 in local government.....	11
1.4 The development of the Internet	13
1.5 Problematique and research questions.....	19
1.5.1 The research questions	20
1.6 Argument and structure of the thesis	23
CHAPTER TWO: E-GOVERNMENT AND PUBLIC DEBATE.....	28
2.1 Introduction	28
2.2 Defining Web2.0	29
2.3 Governing Electronically	31
2.4 A brief history of e-government	33
2.5 E-Democracy	41
2.6 Political discourse, and why does it matter?	42
2.7 Habermas's and Lyotard's public consensus	45
2.8 Local democracy in the Internet age.....	48
2.9 Conclusion	50
CHAPTER THREE: MODELS OF GOV2.0	54
3.1 Introduction	54

3.2 Master frames in the literature	55
3.2.1 The modernist-technologist	56
3.2.2 The small and reinvented government approach	57
3.2.3 Transparent government	58
3.2.4 Refreshed democracy	59
3.3 Criticisms of Web2.0 & Gov2.0	60
3.4 Development of typologies and models of Gov2.0.....	63
3.5 A Model of Gov2.0	68
3.6 Proposed model of Gov2.0 activity	69
3.6.1 Platform Government	70
3.6.2 Transparency of information and open data	76
3.6.3 Social engagement and participation	85
3.7 The practice of Gov2.0 and the example of Iceland.....	93
3.8 Conclusion	96
CHAPTER FOUR: THE FUNCTIONALITY OF GOV2.0.....	101
4.1 Introduction	101
4.2 Networked linkages and connectivity	104
4.3 Transparency	106
4.3.1 Expenditure exceeding £500 – including payment by procurement card	107
4.3.2 Procurement information	109
4.3.3 Local authority land & property holdings	110

4.3.4 Grants to voluntary, community and social enterprise organisations	111
4.3.5 Organisation chart, senior salaries and pay multiples	113
4.3.6 Parking revenues and the number of controlled parking spaces	115
4.3.7 Constitution	116
4.3.8 Register of Members' Interests.....	117
4.3.9 Open Data warehouse	119
4.3.10 Open API.....	120
4.3.11 Accessible data format and open licence	121
4.3.12 Performance reporting & data	123
4.3.13 Broadcast of Council meetings.....	124
4.3.14 Freedom of Information Act disclosure log	125
4.4 Social Engagement.....	126
4.4.1 Use of social media to deliver services and alert or inform users to available services	126
4.4.2 Online consultation system with archive and publication of consultation responses.....	128
4.4.3 Online Petition Syem.....	129
4.4.4 Co-design of services	132
4.4.5 Co-decision around services (public decision making).....	134
4.5 Platform Provision.....	135
4.5.1 Co-production of services and hosting applications developed to deliver	

services	135
4.5.2 Open data mash-ups and sponsored hack days	136
4.6 Conclusions	140
CHAPTER FIVE: EPISTEMOLOGY, METHODOLOGY AND METHODS	143
5.1 Introduction	143
5.2 Epistemology	144
5.3 Outline Research Design	146
5.4 Position of the author as researcher	148
5.5 The analytical construct - frame analysis	149
5.6 Outline of the methods.....	152
5.7 Website content Analysis	156
5.7.1 Research methodology & design	156
5.7.2 Theory and rationale	158
5.7.3 Identifying the variables.....	159
5.7.4 Operationalisation: Defining categories and units of measurement – the coding scheme	160
5.7.5 Defining the coding scheme	160
5.7.6 Sampling	161
5.7.7 Reliability.....	163
5.7.8 Coding.....	164
5.7.9 Analysis	165

5.8 Q-methodology	165
5.8.1 Research methodology & design	165
5.8.2 The use of Q-method	169
5.8.3 Critiques of Q-methodology.....	170
5.9 The research process	174
5.9.1 Development of the concourse.....	176
5.9.2 Development of the Q-set	177
5.9.3 Technology for the Q-sort.....	182
5.9.4 The P-set.....	184
5.9.5 Administration of the Q-study	186
5.10 Conclusions	188
CHAPTER SIX: A CONTENT ANALYSIS OF GOV2.0 PRACTICE	191
6.1 Introduction	191
6.2 The prevalence of Gov2.0 functionality.....	192
6.3 Networking and connectivity	194
6.4 Results of the content analysis	198
6.4.1 Assessed delivery of Gov2.0	202
6.4.2 Transparency Functionality	205
6.4.3 Use of social engagement functionality.....	214
6.4.4 Use of the tools of platform government.....	221
6.4.5 Prevalence against the seven stage of adoption model	223

6.4.6 Political and organisational factors	225
6.4.7 Traditional e-government delivery?	227
6.5 Conclusions	229
CHAPTER SEVEN: Q-METHODOLOGY STUDY OF LOCAL AUTHORITY	
OFFICERS	232
7.1 Introduction	232
7.2 Analysis method.....	233
7.3 Results.....	235
7.3.1 Frame one - Sunlight on Government	239
7.3.2 Frame two – Cautious Crowdsourcer	241
7.3.3 Frame three – Gov1.0	244
7.2.4 Frame four – Platform Providers	248
7.4 Conclusions	252
CHAPTER EIGHT: CONCLUSIONS	
8.1 Introduction	255
8.2 Understanding and modelling Gov2.0.....	255
8.3 Response to the research questions	259
8.3.1 Q1. To what extent is Gov2.0 an observable aspect of English local authority practice?.....	260
8.3.2 Q2. How is Gov2.0 understood by elected and employed practitioners in English local authorities?.....	262

8.3.3 Q3. What are the implications for English local authorities from the adoption of Gov2.0?	266
8.4 The contribution of the thesis	270
8.4.2 Contribution 2 – The application of postmodern public administrative theory to Gov2.0	272
8.5 From rowing to steering, the impact of Gov2.0 on local democracy	275
8.6 Thoughts on part-time PhD study	279
Bibliography.....	281
Appendices.....	308
Appendix 1 - O'Reilly's Definition of Web2.0 (O'Reilly, 2005).....	308
Appendix 2– Data Collection Instruction for Gov2.0 Practice investigation.....	313
Appendix 3 – Functional delivery coding structure.....	315
Appendix 4– Q-methodology Statement initial sample selection matrix.....	329
Appendix 5 – POET-Q pilot test data.....	330
Appendix 6 - Instructions provided to P-set participants	332
Appendix 7 - The Conditions of Instruction	333
Appendix 8 – Supplementary Questions.....	334
Appendix 9 – Completed Factor Array	335
Appendix 10 – The Full Factor Array.....	336

List of Tables and Figures

Tables

Table 1.1	The research questions	23
Table 3.1	Seven stage model of the development of Gov2.0	65
Table 4.1	Gov2.0 functionality and major literature references	102
Table 5.1	Sample stratification by local authority type	161
Table 5.2	Socitm star awards within the sample group	162
Table 5.3	Comparing Q and R approaches	166
Table 5.4	Final Q-Set	178
Table 5.5	Additional questions	182
Table 6.1	Outlier Authorities	196
Table 6.2	Results of coding of content analysis	197
Table 6.3	Analysis of transparency tools by council type	209
Table 6.4	Analysis of transparency tools by political control	210
Table 6.5	Analysis of all domains by political composition	224
Table 6.6	Analysis of all domains by authority type	224
Table 7.1	Initial set of factors (frames)	233
Table 7.2	Outline of the frames	234
Table 7.3	Frame of reference understanding of the subject	248

Figures

Figure 1.1	Reported levels of Internet use 2005-2013	12
Figure 3.1	Three part model of Gov2.0	69
Figure 5.1	High level research design	146
Figure 5.2	Kim and Kulijs (2010) model of content analysis.	156
Figure 5.3	The distribution matrix	186
Figure 6.1	An exemplar of network effects	194
Figure 6.2	Links into local authority websites	195
Figure 6.3	Total scores for Gov2.0 Functionality	201
Figure 6.4	Twitter use to record Customer Service Request	216
Figure 6.5	Suffolk County Council mobile applications	220
Figure 6.6	Frequency count of authorities against the 7 stage development model	222
Figure 6.7	Total mean scores for all surveyed authorities, showing the split between Gov1.0 and Gov2.0	226

CHAPTER ONE: PROBLEMS AND PARADOXES

1.1 Introduction

Former US Presidential Advisor Dick Morris suggested that “*The Internet offers a potential for direct democracy so profound that it may transform not only our system of politics but our very form of government*” (Morris, cited in Eggers, 2007, p.154). Could the application of technology genuinely herald such a significant change in a set of institutions renowned for their stability, or is this a bold and fanciful claim? The technology under consideration is the connected network of computing that has developed from the communications and data transfer experiments of ARPA (later DARPA) and the National Physical Laboratory in the 1960’s (Kleinrock, 2010; Fountain, 2001), to the ubiquitous technology (Dutton, et al., 2013; Chadwick & May, 2003) that today provides information and communications for billions of individuals globally. A technology that has developed in conjunction with the power and speed of computing devices, which according to Moore’s Law, double in speed every 18 months (Schmidt & Cohen, 2014). Devices have not only increased in processing power, but shrunk from the size of a room to something that is portable and accessible. This is a technology that in just fifty years has moved from the specialist laboratory to the pockets of millions. The philosopher Jean-François Lyotard (2004) identifies that since the 1950’s the development of information technology has become a dominant feature of society, and has led to a questioning of the status and legitimation of traditional constructs of knowledge and therefore a questioning of the notions of hierarchy

and dominance.

The Oxford Internet Institute has, since 2003, conducted research on the use of the Internet in the UK as part of the World Internet Project research which seeks to understand the development of the technology globally. This research shows that in the UK Internet technology is available to, and used by, over 78% of the adult population. This is a growth of 19 percentage points since the initial 2003 study (Dutton, et al., 2013), and in a number of countries Internet penetration is estimated at being over 80% (The World Internet Project, 2013). This study identified the differential use made by the public of commercial and local authority websites, with the OxIS study reporting that less than half of survey respondents made use of local authority Internet services, whilst almost 90% made use of wider e-commerce services (Dutton, et al., 2013).

Perri 6's 2004 study of e-governance argued that the idea of an "*information age or networked society*" should mean that "*digital information systems are transforming organisations, and our daily life*" (6, 2004, p. 1). The impact of this technological revolution has been felt across all facets of British society, including England's 350 local authorities. Consequently, citizens should expect that this transformation is as apparent in the development and delivery of public services as in any other area of society.

Local authorities act independently, within a common legal framework, engaging with and being accountable to their residents. Each is able to make separate

strategic and tactical decisions as to their technology usage and priorities. It may be expected then, given the pace of the development of digital and computing technologies that this diversity of decision making will result in a considerable diversity in the approach to the implementation of these technologies; and therefore a diversity of residents' experiences of local e-government.

This research investigates the adoption and practitioners' understanding of second generation Internet technologies, which are defined through the combination of transparent, participative, socially integrated, data driven and interactive functionalities (O'Reilly, 2007; O'Reilly, 2005), in English local government. These technologies, and their accompanying mind-set, have been named Web2.0 (Cormode & Krishnamurthy, 2008; Osimo, 2008; O'Reilly, 2005) to differentiate them from the first generation of Internet based services. Web2.0, which when applied to the governmental context is known as Gov2.0 (Eggers, 2007), represents a disruptive challenge to the traditional relationship between the resident and government institution. The Deputy Mayor of New York, Stephen Goldsmith, summarised this as *"the hierarchical structure where government knows what's best for you is out-dated. Digital tools can dramatically improve the exchange of information and improve the quality of services...citizens collaborating with government work together for better outcomes"* (Howard, 2011 (a)).

The work of Licklider and Clark in 1962 identified the benefits that networked computers may have for facilitating work related interactions. Funded largely by the US Government, they focused on the cold war application of developing war

gaming scenarios for the US military and in the cooperative compilation of computer programs by researchers. The aim of much of the early US research into communications networks was to create a secure system that could withstand nuclear war. The development of wider reaching networking over the next 50 years came as additional local networks such as ALOHNET in Hawaii were added to the ARPANET system, connections that led to the development of “*Internetworking*” (Kleinrock, 2010). The Internetworking, developed from these US military and academic institutions has become a part of the fabric of society that is used by over three quarters of the UK population (Dutton, et al., 2013). The Internet, as it has become known, has become a ubiquitous presence in the lives of billions of people worldwide, with access possible from a range of devices including mobile phones and televisions, not just desktop computers (The World Internet Project, 2013). The range of services available appears limited only by the imagination of the user. It is a technology that has been in existence for a little over 50 years and has only been readily available for the majority of the population since the 1990’s. In the last 25 years the impact of the Internet has been felt across broad swaths of society, revising the way in which individuals interact with the world around them (Fountain, 2001).

Within government, the impact of what initially became known as e-government, brought the introduction initially of financial and modelling tools, then expert systems to support case work and from the mid 1990’s intranets and e-mail that made communication easier (6, 2004). One notable feature of the growth and development of e-government up to the first decade of the twenty-first century is

its introspective nature, focusing upon the delivery of services for local authorities to administer their business; not upon service provision for citizens.

As the Internet developed from a static to an interactive media the possibilities of large scale civic engagement have become a practical reality. Mass engagement, a process known as "*leveraging the power of the long-tail*" (Song, 2010, p. 249), is a defining feature of the second generation of Internet technologies. The hallmark of inclusivity is more than an accident; the harnessing of a large and diverse group is part of the DNA of Web2.0 services. This challenge of inclusivity and redefinition of the role of technology is identified by Thompson as "*...the shift from some early conceptions of ICT as top down, totalizing instrument of efficiency and automation to the opposite view of ICT as enabler of bottom-up collaboration, diversity, and multiple truths is now readily apparent*" (Thompson, 2008, p. 826). Technologies that democratise access to software through open and accessible development codes, coupled to the notion of the perpetual beta where nothing is ever considered to be finished, but rather is in a state of being "*on probation*" (Thompson, 2008, p. 829) points to a technological culture that has dispensed with the modernist notions of a singular and identifiable truth or perfection driven by an all-encompassing narrative (Lyotard, 2004) and that has broken with Hannah Arendt's trinity of faith, authority and tradition (Antaki, 2007).

Gov2.0, the adoption by government of the second generation of Internet technologies which seek to harness the social interactions between users and utilise information transparency to enable cooperative activity, is a developing and

evolving construction that does not yet exist in a standard or mutually agreed format everywhere. As such the views and opinions of those who are proposing, opposing and implementing aspects of it either deliberately or as a by-product of other actions are important to help understand this phenomenon. Gov2.0 has been the subject of books, articles, blogs and other musings by those proposing it, including works by Johnson and Robinson (2014), Waugh (2014), Howard (2011), Noveck (2009), Cross (2007), Eggers (2007) and O'Reilly (2011, 2005)¹. Central to the investigating of Gov2.0 as an uncompleted project, is the acceptance that “*the shape of the future is to a considerable degree subject to human control...*” (Adelson & Aroni, 1975, p. 434). That the future direction of progress is not set on a predictable, deterministic path; rather it is the result of voluntary actions and specific decisions made by individuals for a variety of reasons and under a variety of influences. The model of investigation will follow the path of investigating the perceptions of those involved in the decision making, followed by an exploration and analysis of the observable practice (Van Thiel, 2007).

1.2 Administrative and technological traditions in British government

The organisational outlook of the public sector has long been influenced by the prevailing industrial and societal model with technology, in the Heideggerian sense, “*disclosing the world in particular ways*” (Henman, 2010, pp. 115-116). The disclosure which influences and drives the way in which organisations and those who work within them act and react. The birth of the modern public state was itself

¹ See also Reece (2008) and Yildiz (2007) for e-government literature reviews.

a reaction to the changing times and dynamics of society, the metaphor of the bureaucratic machine has not always been dominant. The 1854 Northcote-Trevelyan Report, the report that led to reforms of the British Civil Service which founded the modern bureaucratic state was written against a backdrop of corruption, poor performance and a perception that the poor quality of the civil service was undermining the efficient running and administration of a growing empire (Barberis, 1996).

The reforms were an answer to the need to modernise the administration of government in line with the needs of an industrial world. Set against the backdrop of the industrial revolution and the growing predominance of economic rationality, the reforms were a major step forward. Indeed the notion of modernisation and the adoption of a more modern form of organisation is a "*beguiling and recurring one*" (Hood, 2000). These reforms created an administrative system now described as traditional public management, seen in direct contrast to the reforms of New Public Management (Lynn, 2002), that finds its theoretical foundations within the rational scientific approach to organisational behaviour, or more recently Dunleavy's concept of Digital Era Governance (DEG). This modernist school of thought, that typified the organisational paradigm from the 1850s and which can still be found alive and well in many organisations both private and public, proposed that there exists a single, best approach to management and organisation. It is on this basis that management scientists such as Fayol, Taylor, and Gilbreth premised much of their work (Clegg, et al., 2006).

This approach is typified by the legal-rational model of organisational behaviour developed by Max Weber that became synonymous with the public sector, the bureaucratic ideal. Organisational and management theorists embraced the notions of scientific rationalism which has developed from the Enlightenment period and formed the basis for philosophical notions of modernity and science. These notions established that if employees and organisations were understood along the principles of rationalism, be it the economic rational individual or the legal rational organisation, then a singular ideal state may be delivered with scientific precision. It is the organisational model popularised by Max Weber in Europe and separately in the USA by Woodrow Wilson in his 1887 essays (Sager & Rosser, 2009) that is commonly thought of as typifying the modern public sector. As well as specifying an organisational model, the bureau also established a relationship with those it was designed to serve, a relationship based on the notion of a singular official way of working and that 'the system' knows best. Today the very word bureaucracy is shorthand for inefficiency, red-tape and bulky officialdom.

A major challenge to this organisational mantra came from the public choice and neo-liberal criticism, which suggested that the public sector was inefficient and poorly managed, a perception driven by the conception that the monopoly provision of services inexorably leads to inefficient service provision. New Public Management (NPM), as the reform agenda became known sought to tackle these perceived ills through the use of modern management techniques, and the growth of the role of market mechanisms. The notion of *Better* management was introduced, defined by following commercial management techniques which focus

on extracting value of cost efficiency, the use of detailed performance management frameworks to drive improvement and the breaking down of monopolistic in-house provision to allow a greater use of private sector provision. This was embodied in the ideals of Best Value realised through the compulsory assessments of services conducted in accordance with the mantra of the 4 C's (Compete, Consult, Compare, Challenge) tests (Stewart, 2003). NPM can be seen as a reshaping of the traditional in order to deal with the complexities of a consumer dominated culture. The results of the public choice debate are a more complex and competition-laden sector than seen in the classical bureaucracy model (Stoker, 2004). NPM has become the orthodox position for local authorities and the concerns of performance and efficiency the dominant narrative.

Dunleavy et al. (2006) identified the organisational, managerial and governance arrangements arising from the adoption of digital technologies that challenge the orthodoxy of New Public Management, which they describe as "*intellectually dead*" (Dunleavy, et al., 2006, p. 7). The terms Digital Era Governance (DEG) and Gov2.0 address very similar and overlapping goals. DEG addresses the impact that the adoption of information technology has had on government and public sector administration. Gov2.0 addresses the harnessing of the tools and philosophy of the social web, Web2.0, for governmental purposes and explores the operation of a digitally enabled government from the practical perspective. There is clearly a significant cross over between these two terms.

The model of DEG outlined by Dunleavy and Margetts (2010) identifies three

component themes, these being: reintegration, the move to an “*intelligent centre/decentralized delivery approach*” (p.18) which is reminiscent of the approach identified by O’Reilly as platform provision; holism with its breakdown of silos and integration of services into more flexible and agile structures; and digitization of service delivery, which is positioned by Dunleavy and Margetts as being a decentralizing pressure. Dunleavy and Margetts also argue that the open government and transparency initiatives sit partially within the theme of holism, identifying the resultant citizen interactions with data (in particular financial data) as a co-production of the regulatory audit function, delivering a very public and distributed model of governance (Bovaird, 2005). The development of open government and technologically mediated transparency (Grimmelikhuijsen, 2010) initiatives requires not just the digitization of data by default; but also the public acceptance of co-production of services arising from these data. While publication of data is the first step, without the ability and inclination to develop these data into consumable and meaningful services it is be valueless. Dunleavy and Margetts (2010) comment that the release of data as a freely accessible and freely reusable resource runs counter to the prevailing wisdom of NPM which would see this as a saleable asset to be maximised. The acceptance of co-production has developed through the use of social media (Kannan & Chang, 2013) to support the direct delivery, or co-delivery, of services to residents such as through the “fix-my-street” type applications as well as support for the data mash-ups and other re-uses of data.

DEG claims to offer an alternative to New Public Management, offering a vision for

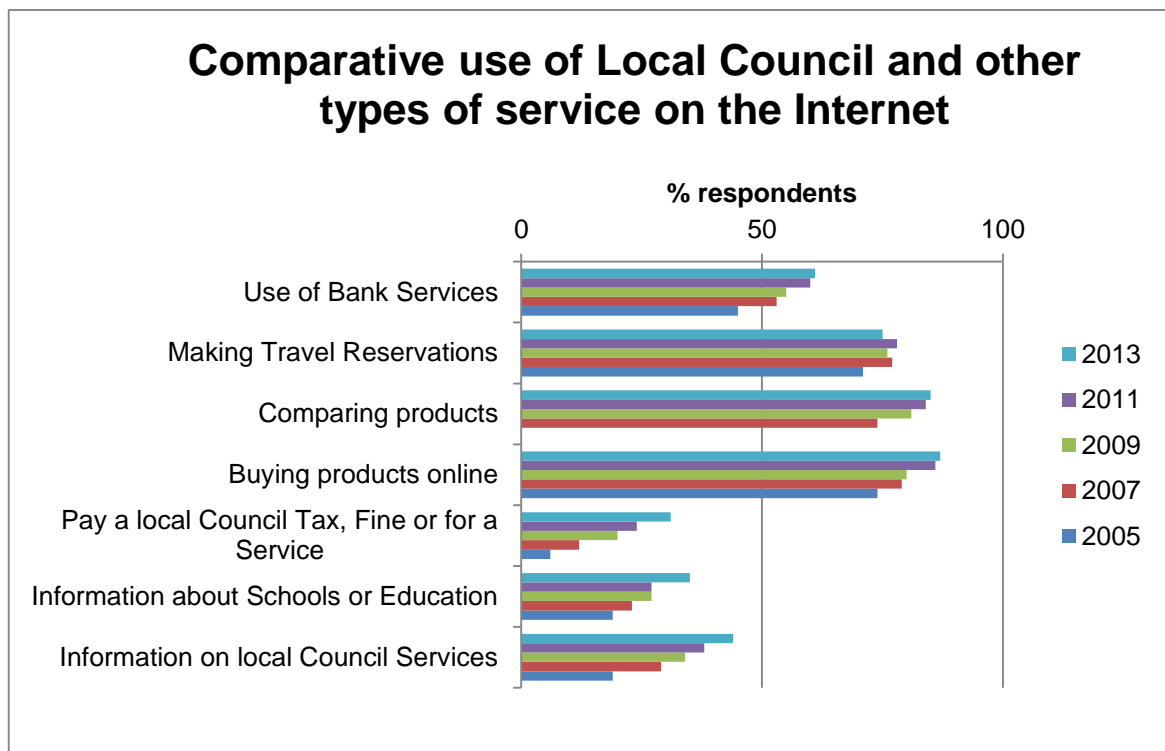
the management and organisation of local authorities in the digital era. DEG and Gov2.0 can be seen as two sides of the same coin, with DEG's focus on the internal workings of local government, Gov2.0 takes a citizen focused view, concentrating on the interaction between the public and local government.

1.3 Adoption of Web2.0 in local government.

Use of the Internet has been charted by the University of Oxford Internet Use and Adoption Surveys (OxIS) from being seen as the preserve of the young to becoming widely used across all age bands. The 2013 survey found that 45% of retirees identify themselves as Internet users. This figure is more than double the levels seen in the first survey. Looking to the use that is made of the technology, 87% report that they buy things via the Internet, 85% carry out research into different products, 75% make travel arrangements online, and 61% use social networking websites. It is clear that the Internet has become an established feature of the landscape for many people, a feature that allows them to accomplish a wide range of tasks, from making new friends to managing personal finances and shopping. The OxIS Survey also reports upon the use of the Internet in the delivery of local government services, split across three areas; general information on local authority services, information regarding education and lastly paying local taxes, fines or for purchases of services. These three categories encompass all of the transactional services that are offered by local authorities, but omits any non-transactional, democratic or governance involvement between the residents and their authority. The OxIS survey reports that the levels of use for these three

services have risen from a position in 2005 of 6% of the survey population to the 2013 figure of 44%. While this represents a significant level of improvement in uptake, it is still far behind the levels of use reported in other sectors within the survey (Dutton, et al., 2013, pp. 3-32).

Figure 2.1 Reported Levels of Internet Use 2005-2013 (Dutton, et al., 2013, pp. 25-32)²



It is possible that the significantly lower levels of use made by respondents of local government services online is due to either a peculiarity of the sample group, or that there is less demand for local government services to be provided online. The evidence of the OxIS survey would suggest that there is a paradoxical difference

² OxIS Sample size. 2005 N=1,309; 2007:N=1,578; 2009: N=1401; 2011: N=1498; 2013: N=2,083

between the use made of local authority (transactional) services and those of the commercial world. Explanations for this may be that local government was a late-comer to the idea of online service provision, is unable to afford or lacks the political will to implement new services or that the commercial sector can see opportunities where local government either can't or that the same opportunities do not exist.

1.4 The development of the Internet

The availability and accessibility of the Internet has radically transformed the way goods, services and information are treated in the commercial world. Much as the industrial manufacturing revolution which transformed the availability and price of consumer goods in the 19th century led to the transformation of government and the doctrine of "*government as a machine*" (Eggers, 2007, p.1), with the dominant narrative of progress and modernity offering a metanarrative of a single best practice and notion of achievable perfection. It is argued that we now stand on the brink of a new model, a government as a platform (Bracken, 2015; O'Reilly, 2011), where access to government is directed by the citizen, on their terms not on institutional ones. Where the workings of government are really open for all to see, not just for those able to visit the town hall.

This development of the Internet towards a position of ubiquitous use has followed two distinct technological phases, identified in 2004 by Tim O'Reilly as Web1.0 and Web2.0. This distinction was an attempt to differentiate between the first

generation of popular Internet services that following the pattern set by the newspaper or magazine format, providing a single direction of information flow between the page and the reader, where information is static; a format that has become known as Web1.0. In contrast to this is Web2.0, providing an interactive, participative data driven design or architecture that harnesses the collective intelligence of the user community and where the flow of information is in multiple directions between the page, the reader (user) and between different readers (users). In Web1.0 the service is as good as the designers can make it; in Web2.0 the service improved the more people use it. The difference was summed up as “*Netscape Vs Google*” (O’Reilly, 2005). O’Reilly’s definition of Web2.0 is outlined in appendix 1.

The second generation of the Internet, is characterised by social connectivity coupled to content co-creation and sharing between users. For example, Web2.0 services allow users to identify and ‘follow’ the activities, pictures, musings and postings of others, and can then repeat this information back to their own followers (Ellison & Hardey, 2014). Social media services such as Twitter, Instagram, Flickr and Facebook are well known examples of leveraging the social connectivity of Web2.0. The second generation of Internet services has coincided with innovations in the capacity and availability of mobile computing devices, including tablet computers and smart-phones which have underscored the ubiquity of access in the UK (Ellison & Hardey, 2014). These services provide users with an ambience of knowledge and interaction (Jeffares, 2014) that provide the user with background music of interaction during their day.

The impact of Web2.0 upon the retail sector and in the provision of new opportunities for social interactions for individuals continues to be significant. These are activities where comparative advantage can be gained by utilizing technological advances to drive sales, to understand customer behaviour (Jeffares, 2014) and develop new markets. Outside of the market place, where politics and policy are the instruments of change, the driving forces for the adoption of technology are different. Morrison (2010) argues that ideas of interconnected activity and user generated content, such as those that led to the development of services such as YouTube or Facebook, offer important new opportunities for government and democracy. Ferro and Molinari (2010) however point out that *“As of today, investments are being targeted at automation of existing processes to deliver organisational savings. Such use of taxpayers’ money has failed to deliver a real step change in public sector performance”* (p.56).

The adoption of transparency delivered through the sharing of user experiences and independent product reviews by online retailers and service providers (Schmidt & Cohen, 2014) has introduced a level of trust into a market, allowing new entrants to demonstrate their reliability to a wide potential audience. While not beyond being ‘gamed’ by companies looking to improve their standing with potential consumers, this transparency of experience provides a baseline for individuals to calculate the level of trust that they have in what is being offered. This level of publication allows the ‘code’ of the sales process to be seen and

exploited by consumers, in much the same way as pressing the F12 key in a web browser allows the user to see the page code, server IP details and so-forth. The online retailer Amazon is one such example of the harnessing of transparency, described by Meijer (2009) as “*computer mediated transparency*” (Grimmelikhuisen, 2010). Beyond the level of individual products, transparency has extended to open conversations regarding the behaviour of firms, and governments. While these conversations have always occurred, and are not new, the speed at which they can be shared and the breadth of membership within a comparatively short time is. The Internet has driven a new level of corporate social accountability by enabling the rapid sharing of information, and the publication of shades and colours of truth (Noveck, 2009; Fung, et al., 2007). Access is provided continuously and expectation of user satisfaction has shifted. The ability to communicate, to send and receive replies with an enormous range of people is common-place.

Web2.0, the current state of development of the Internet, is premised upon mass participation via cooperative content creation and a growth in the interactivity between participants and websites (and therefore those who own and create websites) coupled to a greater interconnectivity between sites. However the limitations of this model are in its ability to link and share data automatically to develop intelligence. The next anticipated evolution of the Internet is Web3.0, using tools such as semantic artificial intelligence to link data and information sources in new ways to generate new content and unlock new understanding, coupled to the Internet of Things networking an ever greater number of physical

devices (Morison, 2010; Berners-Lee, 2006).

Morison (2010) and Ferro & Molinari (2010) state that the project of Gov2.0 is wider than the simple adoption and addition of technology to the existing forms and norms of government. Rather Gov2.0 goes beyond this and questions the way in which government seeks to engage with its populations, and how information and data is made available to enable citizens and organisations to make use of it. This may be seen as echoing Lyotard's (2004, p.67) suggestion that "*the line to follow for computerization to take...is, in principle, quite simple: to give the public free access to the memory and data banks*". Throughout this thesis it is argued that Gov2.0 represents more than the adoption and use of the web based technological ephemera of Web2.0 (O'Reilly, 2011). It is the philosophical application of these technologies that separates Gov2.0 from the traditional government, not being transparent or using social media because it is mandated, but rather doing so in the belief that this will lead to a different relationship with the public.

A number of Internet based technologies are providing the ability to engage and to enhance the ability of "outsiders" to enter into policy debates and discussion on a more equal footing than is currently the norm. Foucault (1980) identifies that knowledges come with a variety of provenances, and that some of these have been subjugated, knowledge described as being "*naïve knowledges located low down on the hierarchy, beneath the required level of cognition and scientificity*" (Foucault, 1980, p. 82). These naïve, popular knowledges represent the particular

local and folk knowledge that is contained within the community. This may be seen as a challenge to the power of the established hierarchy of knowledge, and of what constitutes a legitimate knowledge. The tradition of legitimate expert knowledge in the technical arenas of local authority policy and practice may be seen as an expression of power through the legitimising of expert knowledge at the expense, and through the subjugation of other knowledges. Legitimate knowledges defined by membership of professional bodies, only members of the Royal Town Planning Institute, for example, can be considered as the Chief Planning Officer. For those members of the community without these tokens of expertise, their naïve knowledge (Foucault, 1980) may be considered as less valuable. In this case, consultation becomes an exercise between expert and non-expert, between legitimate and illegitimate knowledge. Any variation in the acceptance of naïve, or non-expert knowledge is then a change in the power relationship.

As a democratizing force, the Internet challenges these limitations, and in doing so challenges the established hierarchy. The limitation of shared knowledge is broken by the ability to publish the evidence for general scrutiny at no additional cost. The limitation of eliciting and sharing mass opinion, informed by the evidence, is disrupted by systems of instant messaging and email. The limitation of the knowledge is challenged by the practice of social media and the sharing of experience and informed opinion coupled to recognition of the legitimacy of Foucault's naïve knowledge.

1.5 Problematique and research questions

The use and understanding of Gov2.0, the application of the tools of Web2.0 in English local government, is neither well understood, nor well documented. This may be because it is a developing construction that has not become a standardised set of services across local authorities. Consequently the views and opinions of those who are proposing, opposing and implementing it, either deliberately or as a by-product of other actions, are important to shape the understanding of this emerging area of policy and practice. Understanding how and why events may take a particular turn requires the study of the understanding of the similarities and differences of opinion and desired outcome of those involved in a subject. As Adelson and Aroni (1975) commented that "*The shape of the future is to a considerable degree subject to human control...*" (Adelson & Aroni, 1975, p. 434), consequently developing an understanding of practitioner conceptualisation of the topic is central to its development. How do they understand the issue, what is important to them and why? These constructions of understanding and influence their behaviour, and hence the behaviour of others. Ignorance of these patterns of thought and understanding leads to ignorance of why policy and practice moves in a given direction. If choices are made, at least in part on the basis of anticipated outcomes and expectations, then understanding is needed of the spectrum and commonalities of these constructions, the areas of consensus and of dissensus (Adelson & Aroni, 1975).

This study investigates how, or indeed if, the notions of Gov2.0 that are discussed

in the literature are being realised and provides an understanding of the main viewpoints of those engaged in the still evolving policy concept. Much of the literature and examination of Gov2.0 is focussed upon the American and national scale experience, or upon optimistic predictions of the application of technology. A review of the literature reveals a significant gap in the knowledge surrounding the experience of Gov2.0 in the context of English local government that this thesis will address through the resolution of the problematique. The central research question at the heart of this thesis investigates ***in what way do local authorities make use of second generation Internet technologies*** and is focused upon developing an understanding of the meaning of Gov2.0 in the context of English local government to those who are, knowingly or unknowingly engaged in this practice. The thesis will allow an investigation of whether Gov2.0 is just a “froth” of raised expectations and optimistic exaggeration, or whether there is an observable and definable practice able to be understood and documented. This thesis accepts the idea of a multiplicity and variety of truth that is negotiated within and between individuals and draws upon social, cultural and political factors. Consequently the reality of practice will be defined within a set and scale of criteria establishing where practice does and does not exist (Alvesson, 2002).

1.5.1 The research questions

This thesis addresses three specific questions regarding the use of the second generation Internet technologies by English local authorities. The first of these questions is: **To what extent is Gov2.0 an observable aspect of English local authority practice?** The ubiquitous adoption (Dutton, et al., 2013; Ellison &

Hardey, 2014) of the public Internet has brought about a set of changes that are still developing. The impact of this technology, for example, upon the retail sector have been seismic. New business and organisational models have developed as a result of the technology of the Internet, a technology that is still in its infancy and is still developing. The social and political impacts of the technology have yet to be fully understood, but it is clear that the development of new forms of communication and the ability to access information can be very powerful, a power witnessed in the uprisings and political protest that gripped the Middle East in the Arab Spring that begun in December 2010, a set of revolutions which were, in part at least fuelled by the communications technologies of the Internet (Wolfsfeld, et al., 2013).

The second question is: **How is Gov2.0 understood by elected and employed practitioners in English local authorities?** This examines the way in which the policy object, Gov2.0, is constructed, discussed and understood by those responsible for decisions surrounding its implementation. The individuals' construction of the issue and therefore of their response to it is driven by preconceptions that allow the individual to highlight various aspects of information, enhancing the salience of some, and down playing others (Entman, 1993). This understanding of the acceptance of new information by individuals' results in a scattered conceptualisation of information, with individuals using their preconceptions and established worldview, known as frames of reference, to diagnose problems, evaluate causes and prescribe remedies (Benford & Snow, 2000; Entman, 1993; Berger & Luckman, 1991). Competing frames form the basis

for policy debate, and eventually for policy implementation. Understanding the frames of reference will then allow an understanding of the considerations and prioritisations that will drive the debate.

And finally the thesis questions: **What are the implications for English local authorities from the adoption of Gov2.0?** The ability to equalise the symmetry of information through the tools of transparent communication is one of the aspects of the Internet that offers the greatest potential as an initiator of change. Away from the intensity of the political arena, the ability to share information, and to develop the ability to trust the information that is shared have become key features of Web2.0, from the seller ratings on eBay to the specific review websites such as TripAdvisor, the shared opinions of strangers are used by others to inform decisions. Shared information then removes the monopoly of truth and the privileged status of the expert allowing a broader range of narratives; that is the essence of Web2.0. That this is happening across the Internet, but is under researched in English local government provides the problematique that is to be understood. What is the role of Gov2.0 in the relationship between elected local government and those that it represents and whether the application of technology can enable the release of what Foucault identified as being subjugated knowledge, and O'Reilly (2005) calls the architecture of participation. Fundamentally, this resolves to the central aspect of this question, does e-government & e-democracy, and in particular Gov2.0 change the nature of the relationship between the citizen and elected local government?

Table 1.1 The research questions

Q1. To what extent is Gov2.0 an observable aspect of English local authority practice?
Q2. How is Gov2.0 understood by those who work in and are elected to English local authorities?
Q3. What are the implications for English local authorities from the adoption of Gov2.0?

1.6 Argument and structure of the thesis

This thesis explores the development of Internet based e-governance and the concept of Government 2.0 (also known as Gov2.0), from the perspective of English local authorities. The argument that runs throughout is that Gov2.0 adoption of second generation Internet technologies as a facilitator for a refreshed and enhanced civic relationship, represents a significant challenge to the governance tradition (Eggers, 2007). Gov2.0 is presented as comprising a bilateral flow of communication between the authority and the citizen, a flow of information and a platform that provides opportunities for the hosting of services. The thesis is divided into eight chapters.

To respond to the questions of the use of Gov2.0 in local government requires the establishment of the underlying principles themselves, therefore chapter two explores the basis of e-government as an approach to the civic relationships and explores whether this represents an attempt to move to a Habermasian ideal of

democratic deliberation in the pursuit of consensus, or represents Lyotard's notion of paralogy. The chapter uses this to further explore the features of Gov2.0 specifically the architecture of participation defined by O'Reilly (2005), and Surowiecki's harnessing of collective intelligence.

Chapter three builds upon this initial description of Gov2.0, and an identified under theorization of Gov2.0 in the literature to construct and offer a new model of Gov2.0. The chapter presents examples of Gov2.0 in practice in New York and Iceland. The chapter draws on the work of Mintzberg to define the practice of Gov2.0 as a form of democratic adhocracy, recognising that political engagement is for many an ad-hoc activity (Jackson & Lilleker, 2009). The criticisms of Gov2.0 are explored; in particular the suggestions that Gov2.0 is undermined by a social and economic digital divide. The chapter concludes with the presentation of a cohesive model of the adoption of Gov2.0, building upon a model previously presented by Howle-Schelin in 2003.

Chapter four provides a detailed description of the functionalities which characterise Gov2.0 drawing upon the recommendations issued in 2014 by the coalition government elected in 2010, and published examples of practice, to root the theoretical model developed in the previous chapter in the potential realities of practice. This chapter provides a basis for the empirical exploration of this functionality, developing the criteria for the exploration of practice. The previously documented understanding of Gov2.0 in practice within the English local government context is limited to investigations into the adoption of specific

technologies, no research has been conducted into either the prevalence of Gov2.0, or practitioners understanding of the technology and associated issues. This gap in understanding will be resolved, through the use of empirical research to access the social reality and associated meanings of Gov2.0

Chapter five sets out the two research methods used, these being website content analysis to investigate the practices and Q-methodology for the investigation of practitioners perceptions of Gov2.0, with the results of the Q-methodology study conceptualised through frame analysis. Content Analysis provides a structured and repeatable way of making inferences about the content and context of data (Kim & Kuljis, 2010). Q-method is identified as the method for this first aspect of the research because it provides a scientific method for studying the subjective attitudes and opinions. In Q-methodology the object of enquiry is upon the finite diversity of constructions of opinion about a given subject, where the focus is not on the constructors of the opinion, *“rather upon the constructions themselves”* (Cross, 2005, p. 209).

The theoretical model presented in chapter three and the definitive functionality documented in chapter four are explored in chapter six. The first research question, which is explored in chapter six, , will investigate to what extent this functionality is utilised by English local authorities.. This exploration is conducted through a content analysis sample of 50 top tier authorities. This chapter provides sufficient evidence to claim that all the surveyed councils are to some extent providing services that accord with the definition of Gov2.0 presented in chapter

three, however the evidence demonstrates that differing levels of functionality are present and that individual authorities are engaging with the paradox and delivery pressures in a range of ways reflecting local circumstance not necessarily driven by political party or authority structure. The prevalence of the adoption of Gov2.0 functionality being provided by individual authorities is mapped against a seven stage development typology, and examples of authorities demonstrating significant adoption of Gov2.0 functionality are highlighted.

To gain a further understanding of the driving forces behind these decisions of implementation chapter seven details the results of a Q-methodology study into the subjective understanding of Gov2.0 by local government officers and locally elected politicians, which will provide evidence to respond to the second research question. This Q-study is conceptualised as a frame analysis, following the example of work by Kroesen & Bröer (2009), Stephenson (1992) and Brown & Taylor (1973). This study identified four distinct frames of reference held by those employed in and elected to local authorities.

Chapter eight finally draws together the theoretical models developed with the empirical evidence gathered to conclude that Gov2.0 presents itself as a postmodern interpretation of governance, following Lyotard's concept of paralogy and departing from the modernist notion of a singular truth to embrace a continual development through discussion; and as such a rejection of Habermas's idealized notions of consensus. The delivery of Gov2.0 services can be seen to be following

the seven stage model developed from Howle-Schelin's typology published in 2003. The final concluding point suggests that the frames of reference identified from the Q-methodology provide a guide to the perspectives held on the subject and due to the variation in these authorities are taking differing approaches to the implementation of Gov2.0. The thesis identifies that these frames both separately and together are driving the adoption of Gov2.0.

CHAPTER TWO: E-GOVERNMENT AND PUBLIC DEBATE

2.1 Introduction

This chapter outlines the history of e-government and explores the idea of e-democracy, providing the context for a comparison of the approaches of Lyotard and Habermas to the question of discussion and debate as a cornerstone of the relationship between the public and local government. This is a contrast between the normative aim of consensus and the acceptance of paralogy. This is contextualised with the work of Foucault (1980), identifying the individual voice and consequent power relationships in public political debates, and whether the hope of free and equal access to the debate is realised. This question is central to Gov2.0 as a practice, and to the functioning of Web2.0 in general. The principles of the power of collective intelligence, and the architecture of participation (O'Reilly, 2005) is impossible without accepting the equality of access to the discussion. Equality of access includes both the equal ability of individuals to access the debate and within the web context for all debates to be provided equal access to potential participants, the debate of net-neutrality.

The keystone of engagement in Web2.0 is the equality of access to the Internet and the individual being an equal party to the discussion, an equality that can be provided by the basic anonymity of the web, where race, age and gender can be hidden, and where due to the ubiquity of personal computing devices (Dutton, et al., 2013) access to the debate is available to those who want it. This opens the

question of whether all parties can be equally equal, or if identified and recognised expertise should be treated differently from informal expertise, a question which is of significant relevance for local authorities relationships' to their residents. Should the formal and recognised expertise of the council officer be considered as superior within the architecture of participation to the local and informal knowledge that has been developed by residents?

2.2 Defining Web2.0

The Internet, O'Reilly (2007) reminds us, is a web of interconnected and linked content. A platform for the hosting and linking of individual pieces and collections of text, images and applications that may be seen by way of a computer interface. This interface may be a PC, tablet, phone or smart-television. During the initial popularisation of the Internet, it was often referred to as a virtual world, indeed Fountain's 2001 book was entitled "*Building the Virtual State*" (Fountain, 2001), however it is virtual only in the sense that the individual pages seen on the computer cannot be touched, or smelled. The contents, in that they have the ability to influence how we live our lives, are real. It is now obvious to argue that the Internet has "become ubiquitous" (Dutton, et al., 2013; Chadwick & May, 2003), and has fundamentally altered the way that aspects of society work (Mergel, et al., 2009). The Internet has the ability to inform and shock, to titillate and to enable trade. Companies such as Amazon are far from virtual, and while the primary interaction may be electronic, behind the web store front, is a very traditional network of warehouses and delivery companies. Payment by way of

credit card or PayPal is, in a sense virtual. No one sees the exchange of money for goods; but the veracity of the transaction is not doubted, nor is the enforceability of the bill at the end of the month. The line between “*real*” and “*virtual*” is a false one. That said, the nature of the computer enabled interaction is fundamentally different to that of face-to-face, or telephone. A sense of disconnectedness, and anonymity may exist for the user, allowing behaviour that is not normally permitted, or is hidden in “normal” society; and the venting of opinions and use of language that may not normally be allowed (McNeal, et al., 2008).

The second generation of Internet activity was born out of the ashes of the Internet bubble and crash (Osimo, 2008; O’Reilly, 2007). So what is meant by Web2.0 and by extension by Gov2.0? O’Reilly (2007) suggests that “*Like many important concepts, Web2.0 doesn’t have a hard boundary, but rather, a gravitational core...a set of principles and practices that tie together a veritable solar system of sites that demonstrate some or all of those principles, at a varying distance from that core.*” To be sure Web2.0/Gov2.0 does not exist as an exact entity in the way that a printing press can be defined; it is not fixed in time or space, rather it is at best a concept, an idea on which a number of definitions and meanings can be hung. Web2.0 & Gov2.0 is developing and evolving as new content is created and new applications make new opportunities available. It has little history on which to draw, and has not had time to put down an extensive root system in the academic, professional or popular worlds. O’Reilly’s definition of Web2.0 is reproduced in detail in appendix 1.

That is to say that there is no exact or precise definition of Web2.0, rather a set of principles that stand it aside from Web1.0 applications, the definition of Web2.0 is, to a large degree based on the difference from previous experiences. O'Reilly's definition stands as the best working definition. It is also worth noting that in addition to no specific definition existing, no chronological line exists between Web1.0 and Web2.0, or for that matter where Web2.0 will be said to finish and where Web3.0, the semantic web will begin.

Web2.0, and therefore Gov2.0 is marked by changes and developments in these two interrelated areas, the adoption and use of the technologies of participation, social interaction transparency and availability of data not for their own sakes, rather in order to refresh and enhance the nature of the public discourse and as such of the relationship between citizen and government.

2.3 Governing Electronically

In 2003 Chadwick and May started their commentary on the subject of e-government with a quote from Barber (1997), that *"The trouble with the zealots of technology as an instrument of democratic liberation is not their understanding of technology but their grasp of democracy"* (Chadwick & May, 2003, p. 271). This quote is as apposite today as when penned, and will continue to represent one of the key themes in the development of this area of study. One of the dangers of this topic of enquiry is the risk of being seduced by the technology, with what it *could*

or *perhaps will* do. Technology can seem a panacea and can make the existing and mundane appear new and exciting.

Wu (2009), writing in an online debate on government transparency provides a useful damper on the panacea of technology to act as a “miracle cure” for the ills, or supposed ills of a democratic system. Looking at the American example, a system that he suggests is viewed as:

“...a form of engineering. Stir together judicial review, transparency, divided government and out of it, supposedly, comes good government. When that fails to work we add something new, may be technological....the real problem is that the drive for miracle cures can neglect or even counteract the political controls that actually do matter; internal controls, better known as civic virtue”. (Wu, 2009, p. NP).

It is important to remember that Gov2.0, or other applications of technology do not change the fundamentally human nature of democracy. Internet technology can enable democratic participation, and can shine the “*disinfectant of sunlight*” (Lessig, 2009) that is transparency upon the actions of the state. However, it cannot **do** politics or policy for people. The technology may be able to reach people in new ways, and it may be able to open-up the process and facts to the daylight of public scrutiny, but that process of democratic deliberation and of engagement in the policy discourse remains essentially one based on human actions and relationships.

2.4 A brief history of e-government

The history of e-government and its less discussed sibling e-governance runs parallel to the history of the computer. Prior to this, information and communication technologies have been synonymous with the state since the inceptions of states. Rulers have always looked for ways to gather and transmit information, even if that be by human hand. In communications terms, governments worked to create postal services, and then worked with industry in the use and development of the telegraph (Osborne, 1993). The 19th century developments in bureaucracy and the desire to formally govern and manage the state coincided with the development of analytic engines, such as that developed by Charles Babbage, and the development of punch cards as a means of storing data, an invention that was adopted by the United States Census Bureau in 1890 (Longo, 2011).

Local authorities, as with any other tier of government create and store official files and documents, historically kept in a "*paper memory*" (Dunleavy, et al., 2006, p. 11) a collective repository of information that is capable of outliving the authors of individual documents. Files are indexed and able to be referred and cross referred over time, developing an institutional and impersonal knowledge store of reasoned actions taken over time. The development of a bureaucratic machine as an organ of state mimicked the contemporary development of industry. The development of industries of scale and mass production, such as Ford or General Motors offering mass produced solutions for a changing society, and in the process changing

society (Osborne, 1993; Farmer, 2005). Industry has since undergone significant changes, offering choice and personalisation, while government and local government have largely retained systems of mass government.

The importance of automation in the management of “office paper work” was noted in 1954 by Howard Gammon of the US Bureau of the Budget in his review of Diebold’s book *Automation: The Advent of the Automatic Factory* noting that automation, and the application of computer technologies can “...*make substantial savings and render better service through the application of electronic information processing methods.*” (Gammon, 1954, p. 63). In the same review, Gammon quotes C Wright Mills on the impact of computerisation (or automation as he calls it) on the worker. He quotes Mills as saying that “*As the mechanization of the office proceeds and it has only begun many white-collar jobs will become more routine, and they will be subject to the same unemployment threat as wage work.*” (Gammon, 1954, p. 66). In this, Mills correctly predicted some of the impacts of computerisation on the workplace and in noting the threat of unemployment, and thus cost savings. This search for lower transaction costs has become a driver for many IT project implementations in the public sector, despite the questionable reality of some of the claims made (Dunleavy, et al., 2006).

A significant body of literature has been produced around the development of e-government and e-democracy (see Reece, 2006 and Yildiz, 2007 for comprehensive literature reviews) since its first academic mention in 1993 (Henman, 2010), much of which has been published since the passing of the

millennium. Journals, such as *The Journal of E-Government* (first published March 2003), becoming in 2007 the *Journal of Information Technology and Politics*; as well as special editions of more traditional journals, have been developed in order to shine the light of academic research on developments in this field. One notable early contribution to the literature is Fountain's 2001 book *Building the Virtual State*. This book provides an important, if at times controversial (Coursey & Norris, 2008; Danziger, 2004; Grafton, 2003), review of the process and challenges of adoption of information and communication technologies in the public sector, focusing on the USA but with a strong ability to reference back to all Weberian bureaucracies (Grafton, 2003).

The benefits of, and issues related to e-government have been promoted from a number of perspectives, notably those of the technological determinist (Schmidt & Cohen, 2014) or cyber optimists (Norris and Reddick, 2012), the rational actor/rational choice (Grafton, 2003), and by the proponents of participative democracy and transparency in government (Longo, 2011; Noveck, 2009; Fung, et al., 2007; Gutmann & Thompson, 2004). Authors have looked in detail at various elements of the use (Waugh, 2013; O'Reilly, 2011; Coursey & Norris, 2008; Chadwick & May, 2003; Moon, 2002), take up (Tat-Kei Ho, 2002), procurement (Dunleavy, et al., 2005) and organisational impact (Dunleavy & Margetts, 2010; Hood & Margetts, 2007; Garson, 2003) of ICT in local government. In addition to these academic authors are the works of practice issued on the subject by central governments and Local Government Associations encouraging use and changes to be adopted, promoting a singular "best practice", although a debate exists on

the very notion of such a singular best practice. If all authorities are individual constructions of their residents' wishes, the politicians' actions and the employed officers' behaviours, then the transplanting of solutions between them must be subject to scrutiny, and the notion of singular perfection questioned. However such documents, and debates do exist, and it is these which constitute the artefacts of the discourse. This discourse, augmented by the debates and discussions of practitioners and view holders, is composed of various and distinct frames of reference and articulated thoughts.

The subject of e-government is as broad as the subject of government, as the name suggests e-government is simply the use of computer technologies to solve or simplify the problems, and actions of governing and governance. (Henman, 2010). Jane Fountain (1999) states that the organisational forms developed in the 19th century were born of that industrial revolution technology, and so held that classical worldview. Steam power and mechanisation allowed improvements in the efficiency of administration and 19th century notions of democracy ensured that the access to the administration remained limited to the elite, rather than the masses. The tools of government, Nodality, Authority, Treasure and Organisation (Hood & Margetts, 2007) are linked to, and drawn from the society that was governed, and the limits of the technology available. The successful delivery of government involves managing the twin endeavours of administration and of politics. The two are inextricably intertwined within the party dominated representative democracy system. While in theory politics governs the administration, the challenge posed by the full time bureau to the part time political master is well documented (Miller &

Fox, 2007; Farmer, 2005; Hughes, 2003; Held, 1995).

The most recent iteration of e-government and some may argue the ultimate expression of the use of technology in government is the development of the smart city. This moves technology from being an aspect of traditional government to becoming part of the DNA of the urban space and providing the facility to react to events and needs on a city wide, or individual level. This vision of the city echoes the domestic radiator thermostat, that increases heat in each room only when it is needed, responding to immediate changes in temperature. Smart cities look to mimic this domestic model on a far wider scale. Examples of this range from the small scale harnessing of data in Chicago, to the massive scale, such as the South Korean new town of Songdo.

By embedding technology into the fabric of the city, such as in Chicago where snowploughs are GPS enabled, allowing a real-time “*plow map [sic]*” (Townsend, 2013, p. 208) which provides residents with the knowledge of which roads are cleared, and supported a citizen engagement and empowerment programme called the “snow corps” matching volunteers with snow shovels with snowbound vulnerable people. The vision for a truly smart city has been developed in the South Korean city of Songdo, built on 1500 acres of reclaimed land near the city of Incheon, 40 miles from Seoul (Gale International LLC, 2014) at an estimated cost of \$35 billion (Arbes & Bethea, 2014). The city attempts to integrate technology into every aspect of living in the city, with domestic waste not collected in rubbish trucks, but sucked from the kitchen directly into waste processing centres from

where it will be used to produce energy, where sensors on public transport alert the user individually to when their bus is due to arrive (BBC News, 2013; Townsend, 2013), and a telepresence system developed with Cisco Systems and Samsung that allows residents to use an integrated video conference system in their TV's (a version of Skype) to take classes in language and fitness (Arbes & Bethea, 2014). While Songdo offers a vision of the future, it is also a city that has not yet caught the world's imagination and has only developed to host a third of the expected 210,000 population (Arbes & Bethea, 2014). Songdo is essentially a public-private partnership, within which the role of the local authority is working with the developer Gale International to define the city as both a place to live and as a profitable investment. The technology has been defined around living, rather than governing. Future smart cities may take the next step leading to the use of technology to support the democratic project.

The 21st century has brought forward changes in both the technology (Hood & Margetts, 2007) and the societal outlook. While towns like Songdo have not yet addressed the challenge of integrating the technology into everyday governance, they are proving the case for the integration of technology into new urban developments. Changes and developments in technology challenge arguments that representative democracy is the only realistic form of decision making. When television programmes such as Big Brother can poll over 6 million votes (Wheeler, 2005), arguments that it is not possible, or practical for people to provide their opinion on an issue become less convincing. The 21st century has also brought about a shift towards increased desires of accountability and transparency in

public life. Scandals such as the MPs expenses row (Kelso, 2009) highlight the underlying desire for transparency in political life, while “fat-cat” directors and rows about tax avoidance show that there is a generalised desire for openness across public life. If the argument that transparency and accountability are of ever growing importance as signs of a healthy and vibrant democracy can be made; the counter argument at least at local level can also be brought to bear. Fox and Miller (2007) point out that in 1940 Finer identified that “*bureaucratic discretion is tantamount to the theft of popular sovereignty*” (Miller & Fox, 2007, p. 9), yet the decision making in, for example, local authorities planning departments has shifted from a strong committee basis to the vast majority of decisions being made by officers under delegated authority, South Oxfordshire Council for example states that “*Over 90% of planning decisions we make are under delegated powers granted to officers. Delegated powers are necessary to help the service achieve Government set targets.*” (South Oxfordshire District Council, 2013).

The introduction, in the name of efficiency, improved decision making and civic leadership (Wilson & Game, 2002) of the Cabinet and Mayoral systems has further vested power in a limited number of representatives. We are then left with a puzzle, on the one hand the public is saying that it wants transparency in public life, that it is willing to vote, and vote in a manner that involves direct expenditure; yet on the other being robbed of the ability to gift control to elected representatives by delegation of decision making to unelected administrators operating under a system that was designed for another time and has not, at the fundamental level attempted to bring itself into line with the with changes in society. It is perhaps little

wonder that electoral turnout has dropped to levels where the democratic worth of the process may be questioned. For example in the 2011 Welsh Assembly referendum, a vote on giving greater powers to the Welsh Assembly, turnout was a lowly 35.4% (BBC, 2011).

Within the local government context, the narrative of delivering e-government in earnest started with the publication of the 2001 Labour election manifesto commitment that 100% of public services should be delivered online by 2005 (Stewart, 2003, p. 173). The expression to deliver services “online” was, at best optimistic (Olphert & Damodaran, 2007), and at worst misleading. The availability of online services was measured by Central Government by the Implementing Electronic Government return (IEG), a self-assessment made by each authority identifying how far they had progressed to the desired outcome of 100% of electronically available services. The IEG standards, introduced in 2004 included the use of telephone contacts and services advertised on an Internet page. The IEG standard was driven by an expectation of Web1.0, at the very time that Web2.0 was being defined.

The level of change that has occurred in a few short years can be seen by looking back at the figures discussed by Stewart in 2003, (who it should be noted gave only 2 pages of his 273 page book looking at the modernisation of local government over to e-government), that stated only 1% of contacts were made by e-mail, by the time of writing, this figure was no longer recorded, as doing so had become as relevant as recording how many phone calls are made. E-mail has

become the ubiquitous form of 1-2-1 business communication.

2.5 E-Democracy

It would be a fallacy to assume that by adding technology to the democratic project that there will be an automatic enhancement or betterment in the delivery of democracy. The norms of democracy are the achievement of a process that is inclusive, informed, negotiated and decisive (Moss & Coleman, 2014). Technology may improve or alternatively erode the democratic process (Ellison & Hardey, 2014; Eggers, 2007; Chadwick & May, 2003), by enhancing the levels of public engagement (Dunne, 2010). E-democracy is characterised in the academic literature as being rooted in participation (Dixon, 2010), either by the digitisation of the traditional through, for example the shift from paper petitions to e-petitions, communication that is categorised as many-to-one. Or, alternatively, the argument may be proposed for a more radical approach that echoes Guttman and Thompson's (2004) description of participative democracy, where the conversation may be characterised as many-to-many (Ellison & Hardey, 2013; Fung & Wright, 2003; Oates, 2003). The argument for an improvement to democratic practice refers to the ability of all those legally eligible by virtue of age and location to be able to be part of the rule making process, either by way of direct participation or through the use of a representative intermediary. It is argued that betterment in this case is bringing the individual and their opinion closer to the point of decision. This is not a reinvention of democracy, rather it is akin to Arnstein's (1969) ladder wherein the further up the ladder you travel, the greater the citizen role.

Strategies for an enhancement of the democratic narrative through the use of technology seek to utilise the power of data and knowledge in two directions; providing information to inform and empower the citizen and capturing small amounts of information from large volumes of individuals. Information captured may be for a consultation and options choice or for publically delegated co-decision. In addition to the government's use of technology to support democracy is the self-organising potential of the Internet to operate outside of government direction and to become an expansion of the public sphere, and to allow conversations and contestations outside the formal rules of the debating chamber. Democracy without debate between opposing views becomes sterile, and a public debate involving a fully heterogeneous population is the fundamental of deliberative democracy (Witschge, 2004). This debate is best served by the provision of accurate and accessible information and data. The notion of a truly heterogeneous set of opinions begs a question of the hierarchy of participation, and reverts to the question of equality of knowledge and expertise.

2.6 Political discourse, and why does it matter?

The political discourse, the attempt to motivate another through appeal to reason, should, in order for the discourse to be regarded in Habermas's terms as valid, be governed by discourse ethics, which are summarised as:

1. The principle of Universalisation – that all concerned take part freely and equally in a co-operative search for truth, where nothing coerces anyone except the force of the better argument.

2. Validity and Truth, where the participants in the discourse respect five key requirements; I) No party affected by what is being discussed should be excluded (the principle of generality). II) All participants should have equal possibility to present and criticise validity claims (autonomy). III) Participants must be willing and able to empathize with each other's validity claims (ideal Role Taking). IV) Existing Power differences between participants must be neutralized (power neutrality). V) Participants should openly and honestly express their goals and intentions; and desist from strategic action (transparency).
3. Finally the principle of engagement, of taking participation in the discourse. Habermas argues that in a society following this model, citizenship is defined in terms of taking an active role in the public debate (Eriksen & Weigard, 2004; Flyvbjerg, 1998; Habermas, 1993).

The Internet has enabled many-to-many conversations regarding council policy and service delivery which suggests the possibility of an *“open and discursive public involvement”* (Ellison & Hardey, 2013, p. 888), a suggestion that begs the question as to what is the role and purpose of the public deliberation or discourse? Is it, as championed by Habermas to achieve consensus as to the best way forward, delivering a single grand narrative that all participants can accept; or is it as argued by French philosopher Jean-Francois Lyotard that consensus is only a particular state of dialogue and not an end of itself. Rather its end is paralogy,

defined by Lyotard as being disagreement and a continual search for innovativeness through conversation and engagement in public debate (Brüger, 2001). This represents a rejection of existing notions, the existing consensus, and the liberation of the imagination. Rather than an end or the delivery of a universal truth, Lyotard argues that no such universal and mutually acceptable truth, or grand narrative, can exist. Lyotard also argues against the idea of consensus being the aim or end of discussion, rather if it exists at all it is a transient state (Lyotard, 2004; Rorty, 1984).

The project of Gov2.0 is to expand the openness and accessibility of government and make government information public, open, and instant, but to what end? Local residents and civic society may make use of this resource, but to understand if this represents a shift in the way democracy is operated; or is just a continuance of the status-quo, it is important to explore the differences between Habermas's and Lyotard's viewpoints. Does the opening of conversations inherent in Gov2.0 point towards a shift to building popular consensus policy making; or does it rather lead to a paralogical endpoint. If as David Farmer (2005) suggests we are to "*Kill the King*" and bring forward a form of post traditional governance, which is not only transparent, but is able to harness the citizen-centric possibilities of the digital age, then it is argued that we have to reject Habermas's notion of a grand and unifying consensus that Lyotard suggests is both unachievable and undesirable. It is preferable to embrace the individualistic nature of the web, and recognise that this resolves in the need for individualistic solutions.

The view may be taken that a key difference between Habermas and Lyotard's viewpoints is one of optimism, Habermas's is innately optimistic in his approach. The normative nature of the consensus building speaks of a project filled with hope; contrary to this the paralogical endpoint that Lyotard argues is if not directly pessimistic for the ability of engaged democratic participants to find lasting and mutually acceptable solutions, is at least ultra-realistic about its prospects. The question then remains as to whether it is better to travel hopefully, or to embrace the complexity inherent in a lack of single solutions and accept that the result is one of continuous development and local narratives, or perhaps to not engage at all.

2.7 Habermas's and Lyotard's public consensus

Habermas places himself in the Kantian tradition of moral philosophy, rooted firmly in the enlightenment tradition of the search for reasoned, logical truth, discourse, and discourse ethics are an attempt to expand the idea of an impartial moral guide, via the use of intrinsically moral reasoning, to the conduct of structured argumentation (Eriksen & Weigard, 2004; Rehg, 1994). Habermas argues that the core of communicative rationality, "*the unconstrained, unifying, consensus-bringing force of argumentative speech*" (Flyvbjerg, 1998, p. 2) is central to the experience of being human, and further is core to the functioning of a viable democracy. The guiding principle at work is that of Universalisation, that the moral and ethical rules apply to all, and must be universally applied underscores the ethics. The discourse ethics provide an idealized logic (Rehg, 1994; Habermas, 1993). The discourse

ethics live within the frame of “Ought”; rather than the frame of “Does”. The principles embodied within Habermas’s ethics are attractive insofar as providing a set of guidelines for the conduct of deliberation that is all encompassing, as such Habermas’s discourse ethics provide a notional standard for conduct.

The participation in conversation, debate and argumentation by the public, be it written, verbal or pictorial, or a combination of all three is a defining status of a functioning democracy. We only have to look to societies current and historic to see the results of the lack or deliberate curtailment of the free-flow of ideas and ideals. A defining feature of the repressive, undemocratic regime is the pressure placed by the state on the participation in dialogue regarding the nature, policies and structure of society, and politics. That debate may be held in public, and reason tested before an audience is characteristic of a democratic citizenry (Rawls, 1993). The process of the public reasoning and of public argument is the process of finding a mutually agreeable way forward, a nonviolent approach to finding solutions to the problem of alternative views of what constitutes a “*good-life*” (Rehg, 1994, p. 3)

The basic constituent of political debate is the conflict between competing views of what constitutes the “good-life”. A central question within this is whether it is either possible or desirable to seek compromise between these competing world-views. Habermas defines discourse as the search for conflict resolution (Eriksen & Weigard, 2004; Regh, 1994), the search for the generation of a compromise and for the development of solution that is just. He goes further suggesting that “*no*

vantage point other than discourse itself can provide the objectivity once grounded in religious authority and metaphysical world views” (Rehg, 1994, p. 33). Lyotard, by contrast, states that “it seems neither possible, nor even prudent, to follow Habermas in orienting our treatment of the problem of legitimation in the direction of a search for universal consensus through what he calls Diskurs (discourse), in other words a dialogue of argumentation.” (Lyotard, 2004, p. 65).

Society, and the viewpoints it encompass are far from homogeneous. The role of open discussion in society is, according to Habermas, to deliver consensus and justice. A point contested by Lyotard, who argues that rather than a search for consensus, the aim of the public discourse or debate should be a state of paralogy, and that consensus leads to a sterility of the imagination. Citing the notion of the idea, be it artistic, technological or economic, Lyotard argues that the *“consensus is a horizon that is never reached”* (Lyotard, 2004, p. 61), because progressive research takes place within an atmosphere that does not accept a singular stable version of the truth, which consensus would indicate. Progress is driven by disturbing and revising of the prevailing consensus. Consensus to Lyotard in any sphere, including the political, represents a position of intellectual atrophy, and a denying of the conditions necessary for intellectual progress. In this way the possibilities of deliberative democracy and the opening of the public debate to all offers the greatest chance to deny the consensual atrophy.

Ensuring the heterogeneity of the members of the public discourse is one of the challenges faced by the deliberative democracy project, and by the advocates of

Gov2.0. Foucault (1980) addresses the question for the relationship between power and knowledge. Foucault suggests, while discussing an *“insurrection of subjugated knowledges”* that *“we have repeatedly encountered, ... in the course of most recent times, an entire thematic to the effect that it is not theory but life that matters, not knowledge but reality”* (1980, p.81). Foucault defines subjugated knowledge in two ways, firstly as the historical knowledge that has been lost or disguised over time, and secondly as that which has been disqualified on the grounds of their naïveté and their position in the hierarchy of cognition, the raw knowledge of the untrained patient against that of the trained, qualified and respected doctor, the idea of the popular knowledge as opposed to the professional.

2.8 Local democracy in the Internet age

This chapter began by looking at the idea of technology in government. The application of technology, Internet based or other does not change the fundamentally human nature of democracy. Can Internet technology enable democratic participation; perhaps (Moss & Coleman, 2014; Eggers, 2007). However, it cannot **do** democracy, politics, thinking or the human interactions necessary for the delivery of public services without interested and caring individuals. The technology may be able to reach people in new ways, following the Habermasian vision of equality of access but without the ideal of consensus, by opening and enriching the public debate (Froomkin, 2004), indeed that is one of the central claims of the proponents of Gov2.0 and it may be able to open-up the

process and facts to the daylight of public scrutiny (Coleman, 2013; O'Reilly, 2011), but that process of democratic deliberation and of engagement in the policy discourse remains essentially one based on human actions and relationships.

Gov2.0 may be considered two things, both ill-defined and fluid. The analogy can be drawn between the definitions and the two faces of a coin, on one side it is the application and adoption by government of the Web2.0 technologies; on the other it is the application and adoption of the Web2.0 thinking model behind these technologies, acting as a catalyst for a fundamental revision to the nature of the relationships that define the practical realities of democratic government (Moss & Coleman, 2014; Longo, 2011; O'Reilly, 2011; Eggers, 2007; Fountain, 2001). This represents the speculative *idea* of change to the democratic and government model as significant as the Internet has been to business and retailing (Dunleavy & Margetts, 2010; Mergel, et al., 2009). While separating these two statements of the definition for the purpose of analysis, both definitions are co-dependent and interwoven throughout this thesis. The distinction is drawn here for the purpose of explaining the later analysis of Gov2.0 with regard to Web2.0.

Starting with the side of the coin that defines Gov2.0 in relation to Web2.0 as an act of technological adoption, the technologies spring from the development of the packet-switched network (Fountain, 2001) and proceed into the current iteration of technologies that we are presented with. It is the adoption and use by local government of services such as Facebook, Streetlife and Twitter for external communications and Yammer for internal ones; the use of, and participation in, the

development of open source technology; the publication of accessible, accurate and meaningful information for public consumption and use. Information that respects the individual's rights to privacy as defined in the Data Protection Act (2000) but that allows users to understand the decision making process. Data being made available for secondary use that can be accessed by APIs and is governed by open licences. From the technologist perspective the definition of Gov2.0 is government moving beyond e-mail and into social media; beyond limited public access during office hours and into 24/7 portal access and beyond the town hall into cyberspace.

The behavioural adoption that takes the place of the alternate face of the metaphorical coin is articulated in technologist and Internet entrepreneur Tim O'Reilly's 1995 definition of Web2.0, described by Mergel, Schweik and Fountain (2009) as the seminal definition, as a *“set of economic, social and technological trends that collectively form the next generation of the Internet...characterized by user participation, openness and network effects”*. This definition offers both an insight into the supposed differences and asks a fundamental question. Is Web2.0, and its governmental equivalent just “fancy packaging” for traditional ideas and traditional ways of doing things?

2.9 Conclusion

Improvements in the availability and accessibility of the Internet brought about by advances in the provision of infrastructure and computing power have resulted in

significant changes to a number of sectors of the economy in ways that were not widely predicted 15 years ago. Changes witnessed in areas as diverse as retail, education and government. For government these changes have been introduced through a series of iterative initiatives tagged as e-government, changes that have often focused upon the internal organisation and automating existing processes, rather than the development of new approaches to service delivery. In organisational terms, the practicalities of e-government have supported significant changes to the ways that a traditional bureaucracy goes about its work. Services have been e-enabled and contacting the local authority has been simplified, however the fundamental nature of the relationship between residents and local authorities remains unchanged.

The retail and service sectors have undergone a seismic shift, brought about by the impact of effective competition from e-tailers such as Amazon and eBay, the public sector has, beneath a veneer of e-enabled services and online application forms, not altered on any fundamental level. Local authorities are in many ways the same organisations that they have been since local government reorganisation in 1974, society and public expectation however has changed. The development of Web2.0, and in particular the ability to develop wide ranging social networks to work collectively with complete strangers has changed for a number of individuals the relationship that they want to have with their local authority.

The Internet, or rather the differential experience that is offered between the adoption of Web2.0 principles by some organisations and their adoption by local

government has the potential to act as an agent of change. The ability of the Internet to facilitate and enhance democratic public debate, the public discourse described by Habermas (1993) opens the potential for an inclusive and participatory democracy. Lyotard argues that this is not a search for a perfect compromise rather the embrace of iterative and continuing debate as described by paralogy. In doing so, local government has to consider how the principles of public discourse outlined by Habermas in his discourse ethics impact upon the hierarchy of knowledge and the position of appointed experts. It is argued that within the architecture of participation outlined by O'Reilly (2005) lies the resource of what historically have been subjugated knowledge, the local lived experience and informal expertise. In enhancing the public debate in this manner, local government should also be cognisant of the need not to search for compromise or perfect agreement, rather should accept the notion of paralogy and the continual contestation of truth, a process that means that policy is always open for debate and not seen as completed and therefore off-limits.

That calls in favour of Gov2.0, and for change to local government come as a result of broader trends should come as no surprise. The bureaucratic state was developed out of the 19th century industrial revolutions. The metaphor of the machine state that has driven forward progress in modernist search for bureaucratic perfection grew up with the developments on manufacturing, drawing on the example of Fordist manufacturing and of the early 20th century organisational thinkers. Conversely the Internet age is notably influenced by the postmodern and by a shift from the command and control of modernity to a

shared, co-created and ever changing dynamic. The development of Gov2.0 is a reaction to these changes in wider society. Chapter three will therefore explore in more detail the development of Gov2.0, and will present a model of what constitutes Gov2.0, responding to the challenge of articulation put forward by Coursey and Norris (2008).

CHAPTER THREE: MODELS OF GOV2.0

3.1 Introduction

To arrive at a theoretical model defining the concept of Gov2.0 it is first necessary to deconstruct it, to understand what is meant by the term and its associated connotations. Gov2.0 is still regarded as an emerging concept replete with imprecise definitions and incomplete models (Cox, 2014; Norris & Reddick, 2013; Schlanger, 2013). Much of the literature focuses upon limited experiences of Gov2.0 within a North American context, leading to the suggestion that the idea is setting expectations but is failing to provide a definitive analytic description. The literature focuses upon the desirable features of the future evolution of the technology, and future-gazing (see for example Schmidt and Cohen 2014, or Townsend 2013) rather than presenting a detailed analysis or defining the theoretical framework for understanding the subject, with much reliance placed upon the limited work of a small number of authors (for example O'Reilly, 2011, 2007, 2005; Noveck, 2010, 2009; Waugh, 2013; Eggers, 2007). There are of course exceptions to this, such as the work of Dunleavy et al. (2010, 2006, 2005, 2000) defining and exploring Digital Era Governance, which presents the impacts of technology upon the organisation and behaviour of local authorities and identifies the potential for an alternative to the established orthodoxy of New Public Management. This chapter will present an analysis of the components of the subject and draw these together to present a theoretical model that can form the basis of the empirical investigation of the subject.

This chapter will look at the examples of Gov2.0 in practice including the City of New York and their shift to adopt the practices of Gov2.0 as part of their strategy to become a world leading digital city, and at the use of Gov2.0 functionality by the Icelandic Constitutional Committee to make use of the social media tools of Gov2.0 to engage their citizens in debate and redrawing of their constitution (Valtysson, 2014), making a subject that could be dry and sterile, into a live, open and very public debate. It has been established that Gov2.0 is not just about doing the same business of policy and public administration more efficiently; rather it is the opening up of government and as Dunleavy and Margetts (2010, 2006, 2005, 2000) suggest posing a challenge for the managerialism of New Public Management. It is argued that the structures created by Gov2.0 form, at least from the citizen perspective, a democratic adhocracy (Konieczny, 2010; Mintzberg & McHugh, 1985). The tools of Gov2.0 enable the creation of a series of temporary citizen filled groups intending to deliver specific outcomes, rather than being a new or detailed permanent governance model. For this reason it is suggested using the term adhocratic participative democracy, after Mintzberg's use of the term to describe temporary, minimally managed, often project based, structures that come and go, as required (Rourke & Schulman, 1989; Mintzberg & McHugh, 1985).

3.2 Master frames in the literature

Reviewing the Gov2.0 literature allows the identification of a set of master frames,

frames which provide an overview of the debate surrounding Gov2.0, and its conception in the literature. Master frames serve as a top level conceptualisation of the subject that colours and constrains the later activity or action frames, and are distinguished from the concept of primary frames as having a broader cultural resonance beyond their immediate area of reference (Benford & Snow, 2000).

The Gov2.0 literature provides an understanding of the subject, but omits the central problem of the understanding and consequential actions of the practitioners. Understanding the reasons behind decisions surrounding the adoption of what may be classed as a fundamental change to the operation of local democracy that is encapsulated by the term Gov2.0 is driven by the enthusiasm of individual practitioners and by demands from the potential beneficiaries. This enthusiasm and demand will be driven by understandings and constructions of the subject. Unpicking these constructions is central to the understanding of the subject in practice, as well as any later exploration of its future developments.

3.2.1 The modernist-technologist

The pursuit of technology as a driver of continual improvement, a concept itself not always clearly defined or articulated, and the desire for government to be at the cutting edge of technology and maintaining parity with the private sector, is a viewpoint espoused by authors including Townsend (2013), Newsom (2013), Osimo (2008) and Fountain (2001). This outlook is described as being a “cyber

optimist” by Schlanger (2013). Local government’s embrace of technology has, it is argued, lagged behind the adoption in the commercial sector. While the question of “*if*” is now largely decided, the debate has only recently shifted to “*how*”. Dunleavy (2010) outlines and discusses the history and issues regarding the adoption of waves of technology by government and the role a limited number of large suppliers have in setting the pace of technology change. Indeed the shift to third party managed and hosted software, often referred to as cloud provision or SAAS (software as a service) and a platform based approach, built using framework based software development approaches that are promoted by O’Reilly (Lathrop & Ruma, 2011) may remove some of the dominance imposed by large software companies. This frame is particularly evident within the online conversations on professional social media forums.

3.2.2 The small and reinvented government approach

The notion of small government being at the heart of Gov2.0 is particularly prevalent among American authors including O’Reilly (2011), Millar and Fox (2007) and Famer (2005) as well as being promoted by libertarian influenced research organisations such as the Cato Institute. This master frame encompasses both libertarian strands and the postmodern/post traditional schools of thought. This may be seen as either citizen empowerment, or state reductionism, but central to this is the concept of choice and the practices of co-production and self-production of services by consumer, and building upon the work of Thaler and Sunstein (2003) developing the concept of libertarian-paternalism. The libertarian strand of

thought encompassed within this master frame, which is closely identified with some definitions of Gov2.0 (Ellison & Hardey, 2013), is the reduction in the monopoly provision of services by government. The frame argues that with access to the same information as government, much of government can be individualised. This is the basis of the conjecture that government could function as a platform, a foundation for individual and hyper-local conceptions of the state; postcode sized local government providing granular service specialisation down to street level. The beginnings of this may have been seen in the publication of the neighbourhood planning elements of the Localism Act 2011.

3.2.3 Transparent government

The argument presented by this master frame is that of transparency and the public (and therefore the media) being able to see the workings of government which will reduce waste and unnecessary activity/expenditure, building upon the assumption that the public sector due to its non-market position is inherently wasteful. These are views which have driven the US Republican Party and in particular it's leading edge, the Tea Party who campaign for ever lower taxation and reduction in the scale and scope of government (Kirby & Ekins, 2012; Williamson, et al., 2011). The frame assumes that given a lack of market oversight or profit maximisation motive the best way for the public sector to be managed, and the actions of wasteful unaccountable bureaucrats to be curtailed is by public oversight. The ability of those who provide the money, the taxpayer, to be able to watch and comment on how each penny is spent will, it is argued, provide the

discipline necessary for efficient and effective services. In the UK, one of the leading proponents of this is the Taxpayers Alliance which seeks to utilise published information to identify areas of what it considers wasteful and unnecessary expenditure, identifying, for example the “town hall rich list” of officers paid in excess of £100,000 (The Taxpayers Alliance, 2014).

3.2.4 Refreshed democracy

Arguably this frame of argument could be placed within the heading of transparency, for the ability to actively participate in the debate and discussions around policy formation and decision making requires openness and transparency in terms of the information around the topic, and of the decision making process itself. Transparency and participation allow for the introduction of the reason and reciprocity of deliberative democracy as described by Gutmann and Thompson (2004), as well as for the less formal open multi-party conversational democracy that is discussed by Schmidt & Cohen (2013). Participation and direct engagement in the process of government and governance is a cornerstone of the Gov2.0 vision presented by writers including Waugh (2013), Surowiecki (2011) Noveck (2009) and O'Reilly (2007) The engagement supported by the frame is related to that of the transparent government frame insofar as both seek to see citizens playing a greater role in government, while the transparency frame sees that as focusing upon oversight and processes of accountability, this participative master frame seeks the citizen as an active agent in the decision making process, as outlined by Noveck (2009) in her example of the US patent office, and by Alfred

and Alfred (2013) in their discussion of civic entrepreneurialism.

3.3 Criticisms of Web2.0 & Gov2.0

Criticisms made of the use of Gov2.0 may be considered under a number of headings, these being technology related, socio-economic and participatory criticism. The latter of these are the same criticisms that would be levelled at any project that is at heart participatory, and therefore to some degree usurping the power of the executive, and are not discussed at length.

The socio-economic challenges of the use of Gov2.0 are important and have the potential to undermine the Gov2.0's stated purpose of expanding (local) democracy. The use of the Internet as a core medium for the growth of participation and engagement effectively disenfranchises those members of the community without access to the enabling technology, the so called digital divide (Schradie, 2011), which it is argued works against those whose age, educational level or income prohibits them from engaging in a media that relies upon expensive new technology and the written word. That introduces a barrier of entry to the debate, that only those members of society who have surplus resources to enable them to purchase the equipment and connectivity required, and that have the surplus time to allow them to engage are able to participate. That barrier is a breaking of Habermas's requirement for generality. The question of participation then shifts from one of civic virtue to economic and social reality. The discourse requires its members to have a higher level of literacy, and technological skill

required than traditional democratic methods (Schradi, 2011). Consequently this additional participation is only available realistically to those with sufficient financial resources, time and the appropriate skill base. While aiming to be all embracing and to shift the tide of democratic interaction, the potential result is one that reinvents barriers to participation based on wealth and ability in a manner forgotten since the electoral reform acts in the latter half of the 19th century.

The Oxford Internet Study has investigated the availability of Internet access, and concluded that 78% of the UK population has access to the Internet, that access is multi-generational and is equally split between the genders. The report highlights that while access has reached the point of ubiquity, the last 20% of the population represent those at the greatest risk of exclusion (Dutton, et al., 2013). To try to counter this outstanding risk of an excluded population, towns and cities are making the technology available in public places such as libraries and town halls. Having said this, the very location of these pieces of equipment in libraries may be seen as being a disincentive to engagement. Libraries are not always on the doorstep, and require additional time to access, and are under regular threat of closure. They have closing times that correspond to 'normal' office hours and so may be unavailable to those working shifts or long hours. Libraries and town halls may not be seen as welcoming places for those with a history of poor literacy.

The issue of literacy as a barrier to engagement in the democratic process was touched upon earlier. Engagement in a written, not verbal, discourse requires different skill sets. To be successful it requires the participant to be able to absorb

potentially large amounts of information, and to then use this to form a critical opinion, then to be able to express this opinion in writing. Within the UK illiteracy rates are believed to run at c1% nationally, however the level of functional illiteracy, defined by the National Literacy Trust as being “below those of an 11 year old” is estimated at around 16%, or more than 5.2 million adults. The level of low and poor literacy is significantly higher in the more deprived boroughs of London and other large cities (National Literacy Trust, 2014); the danger exists that the country’s most deprived areas would be excluded from the political process.

A further criticism of the case for increased engagement is that it represents a fundamental shift away from representative politics, and consequently is more open to the “ill considered” swings of opinion among the public at large. The notion of representative politics is premised upon the notion that it is more efficient, and a better way to operate that citizens select a single individual to speak on their behalf, rather than following the Athenian example of opening the debate to all citizens. To do so has clear economic benefits, in that by selecting an elite to govern, the majority of the population are free to engage in other more profitable activity, as well as the obvious practical benefits in a country of almost 70 million people. The operation of a representative democracy recasts the ideal of political virtue away from direct participation into a civic duty to only vote when called upon, rather than trying to make a direct contribution to the debate.

3.4 Development of typologies and models of Gov2.0

The development of typologies classifying the use of information and communication technologies in the public sector may be split between government and governance focused approaches. In exploring the governmental aspects, we are concerned only with the use made of the technologies by and for government, while the notion of governance considers the wider implications and relationships that include unelected actors and partnership arrangements.

Research published around the turn of the millennium was concerned with the very existence of government on the Internet; Fountain's (2001) book addresses the institutional and practical implications of the Internet within the existing organisational paradigm, and posing questions as to the possibilities of change in the citizen-state relationship. In Vol.1 issue 1 of *The Journal of E-Government*, Oates (2003) identified the potentials of participatory e-democracy during the mayoral elections being held in Middlesbrough. The paper may be seen to present an early model of the development of Gov2.0 as a tool of citizen engagement.

A number of models of e-government exist, and were reviewed by Coursey and Norris in 2008. Since this time, models have developed which incorporate the opportunities offered by the Internet, and focus on detailed applications of the technology. The development of typologies and models of the development and adoption of e-government has largely been carried out in the USA, while these

models provide useful and valuable guides, direct read across from US to English local government is not exact, consequently models have to be treated with a degree of caution. Coursey and Norris (2008) identify 5 key models developed in the USA, all of which were published in 2000/2001, and were seeking to predict the development of e-government in the USA. As such these may be seen as some of the earlier attempts to define the development of local governmental adoption and use of technologies. Consequently these models now provide a slightly historical view of the future development of e-government. Of those models, only those produced by Hiller and Bélanger (2001) and Wescott (2001) explicitly identified the development of e-government into digital democracy, however the theme of transformation of the relationship between citizen and governmental institution was common. While all of the models identify an adoption of two way communication or interaction, with the exception of that by Layne and Lee (2001), none identified the open data aspects.

All of the models reviewed by Coursey and Norris in 2008 were predictive in their nature, charting the possible longitudinal development of the technology and its adoption, and the impact that it may have. These models are approaching 10 years old. In this short period, it is possible to see the development of local governmental web presence having shifted from early stages or presenting catalogues of information and simply offering a web presence, to a position in 2011 where government transactions and two way communications are becoming the more common (Ellison & Hardey, 2014). Looking ahead it may be possible to see the beginnings of a change in the nature of the relationship between citizen and

local state, and growth of digital democracy and participation in the democratic process. Coursey and Norris however do not accept this optimistic interpretation of the future. Their findings from assessments made up to 2004 led them to conclude that e-government is at best an “*add-on to traditional ways of delivering*” (Coursey & Norris, 2008, p. 533), and that e-government will not produce “*governmental reform or transformation*” (ibid p.533), they rather see e-government as supporting the status-quo and the existing dominant political-administrative arrangements.

These conclusions provide interesting historical reading, and a strong position from which to re-analyse the existing position of e-government and the development of Gov2.0, which at least on the surface appears to offer a more radical view. Consequently, taking the picture painted by Coursey and Norris that e-government inspired and enabled reform is an optimistic, but ultimately futile endeavour as a starting point for research into the developments of Gov2.0 allows a critical eye to be cast over any research findings, and not to accept the cyber-optimists at face value.

The typology of e-government developed by Howle-Schelin (2003) presents a valuable model for understanding the development of e-government within the framework of Gov1.0 or perhaps up to Gov1.5. This has been expanded, in table 3.1 below, to allow for the inclusion of Gov2.0 functionality.

Table 3.1 Seven Stage Model of the development of Gov2.0 (Howle-Schelin, 2003). Stages 6 & 7 by author.

Stage	Orientation	Services	Technology	Citizens
Stage 1: Emerging web presence	Administrative	Few if any	Only web	Going it alone
Stage 2: Enhanced web presence	Administrative information	Few forms, no transactions	Web, e-mail	Links to local agencies
Stage 3: Interactive web presence	Information, users, administrative	Number of forms, online submissions	Web, portal, e-mail	Some links to state and federal sites
Stage 4: Transactional web presence	Information, users	Many forms and users	Web, e-mail, digital signatures, Public Key Infrastructure portals.	Some links to state and federal sites
Stage 5 : Seamless web presence	Users	Mirror all services provided in person, by mail and telephone	Web, e-mail, digital signatures, PKI portals, SSL, other available technologies	Crosses departments and layers of government

<p>Stage 6</p> <p>Accessible, and transparent portal presence</p>	<p>Open government</p>	<p>Publication of information in a useable format.</p> <p>Publically transparent approach to data behind decisions</p>	<p>Development of API's.</p> <p>Data published as XML, or other machine readable format</p>	<p>Development of citizen functionality to interrogate and analyse data published by government platforms</p>
<p>Stage 7</p> <p>Gov2.0 web presence</p>	<p>Influencing network of users. Spread of transparency from local authority into local governance network.</p> <p>Development of Platform governance network</p>	<p>Government makes use of citizen analysis policy decisions, not only relying on “in-house” expertise.</p> <p>Policy analysis contributed to by “a thousand eyes”</p>	<p>Local governance network develop holistic solutions and common locations for data. Shared API's for data publication and sharing</p>	<p>Citizens use transparent data to make informed policy choices and coproduce services. Transparent policy deliberation and participation between citizen/government</p>

3.5 A Model of Gov2.0

Bannister & Connolly in their presentation and paper to the European Group for Public Administration (EGPA) Conference 2012 discussed the question that e-government is under-theorised, that it does not have a distinct or robust body of theory behind it. The authors argue that this claim is overstated; that is to say that it has some basis in fact, but is not as serious as some critics allege. The lack of theory for e-government comes in part from its relative newness, only being the focus of any academic interest since the 1990's. Following this argument, it may be assumed that Gov2.0, which has only received academic interest since 2005 may suffer at least some lack of theoretical basis as other older elements of e-government. The academic literature surrounding Gov2.0 does not provide a definitive clarity of definition, drawing instead on the assertion that Gov2.0 is simply Web2.0 applied to government. Consequently, a model of Gov2.0 is presented in order to aid understanding of how the logic and delivery of Web2.0 are applied to deliver Gov2.0

Bannister & Connolly identify Gregor's (2006) five types of theory, which are developed as a hierarchy of growing understanding, from initial analysing through the development of predictive models to those proposing courses of action.

1. Analysing
2. Explaining
3. Predicting

4. Explaining and Predicting
5. Design and Action

This research uses Q-methodology and content analysis to propose theory which analyses and explains the prevalence and understanding of Gov2.0. The study of local government officers' constructions of Gov2.0 is an important step in the assessment and description of the theory of Gov2.0 as a reliable and documentable element of e-government. Given that Gov2.0 is a construct of known components that in and of themselves attract differing feelings among practitioners, how these elements are viewed when set together will provide valuable insight.

3.6 Proposed model of Gov2.0 activity

The model proposed is based on three core elements: Government acting as a platform, Transparency of information and Social engagement between local government & citizen and citizen to citizen, including participation and consultation. The linking and understanding of these provide the basis of the theoretical model which this thesis seeks to investigate, and provides the basis for the enquiry into practice within the thesis. The nature, if such a thing can be said to exist, of Gov2.0 is that it represents a shift from a private, monologic conversation between citizens, or civic society and government to a many-to-many set of conversations (Moss & Coleman, 2014; Ellison & Hardey, 2013) with multiple strands of publically accessible communication, communication that is

visible throughout, and between the governance networks. Consequently, the model that is proposed, must be bi-directional in nature; one side looking to governmental and oriented towards the traditional hierarchical structures and owners of information, and another facet that identifies the citizen and non-governmental perspective and impacts of change. These two perspectives form the basis of Gov2.0.

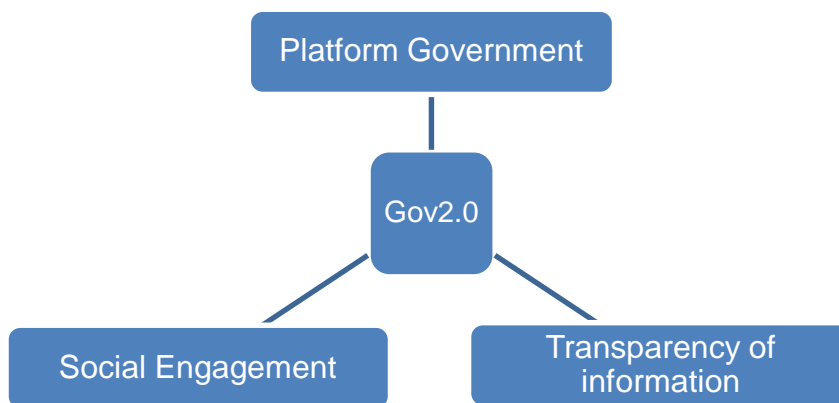


Figure 3.1 – Three part model of Gov2.0

3.6.1 Platform Government

The argument for platform government is a metaphorical call for government to follow the example of successful technology companies (Bracken, 2015) and move from a model of a single vertically integrated industry that is attempting to provide solutions for all possible problems into an open system that allows citizens working alone or together to co-produce new approaches to problems (Song, 2010; O'Reilly, 2007). This approach has been characterised as a libertarian

(Ellison & Hardey, 2013) vision of government, where the role of the authority is shifted from direct service provision to a guarantor and infrastructure provision approach (Johnson & Robinson, 2014; Longo, 2011), but that may be more accurately described as being libertarian-paternalist (Thaler & Sunstein, 2003), recognising the authority's desire to act in the best interests of service users, while offering a freedom of choice. The libertarian-paternalism proposed by Thaler and Sunstein (2003) looks to highlight the choices that are available to consumers that are in their own best interests, without hiding or removing other options, drawing on the example of freedom of choice for the individual in opting-out of a company pension scheme. Giving users this option follows the libertarian approach, however making the default choice in favour of joining, and making use of the status-quo bias (where individuals are less likely to change once they have made a choice) libertarian principle of individual freedom of decision can be maintained while the individuals presumed best interest is proposed.

The metaphor of platform provision was developed by Tim O'Reilly (2011), building upon the successful business models that have come to dominate the commercial sphere of the technology sector. The Government Digital Service has identified its vision in a blog entry that government as a platform provides a new direction, offering *"a common core infrastructure of shared digital systems, technology and processes on which it's easy to build brilliant, user-centric government services."* (Bracken, 2015). Companies such as Microsoft and Apple pioneered the shift away from being companies that sought to design and provide all of the potential software that they felt a user could need, to hosting a range of third-party

produced products. This model of predefined provision was preceded by the early Internet enabled telephones, which came pre-loaded with the applications that Nokia or Motorola felt would best fit the needs of the market sector they were targeting (Townsend, 2013). The decisive break to this came with the launch of the Apple application store, a service which allowed the user to customise the functional content of their device by purchasing functionality that was approved to work on the device, and that was produced by both Apple and other third parties. This model had always been the business model for the desktop PC, where separate software was purchased to run on the hardware, the principle difference being that in the case of the Apple store, the hardware provider facilitated the transaction and took a (profitable) role in ensuring that the content met certain standards. By hosting the market place Apple benefit from the transactions financially, to offer a far greater range of functionality and so increase the popularity of its devices, and forge longer term relationships with its customers. For the customer the idea of this level of supported customisation allows the device to meet their individual needs precisely. To facilitate the continued development of third party software, Apple make available to developers all of the tools required to code onto their platform. Providing support and encouragement to the community to imagine and develop new services is an essential part of the process. This model has further been successfully implemented in the Amazon market place, where Amazon host and manage the sale process, but encourage and support vendors to enter in order to increase consumer choice.

This platform represents a shift from the modernist approach of a single centrally

driven solution to one of mass customisation and as many interpretations of ideal functionality combinations as there are users can be applied to the 'business' of government at all levels. As such this may be seen as a libertarian-paternalist, or neo-liberal inspired change to the collectivist and centralist foundations of public sector provision (Johnson & Robinson, 2014; Ellison & Hardey, 2014). Local government, which provides hundreds of centrally planned services from the maintenance and protection of public footpaths and rights of way, through local economic development to the protection of the most vulnerable in society do so, generally speaking, in a single one 'size fits all' approach. The traditional approach has been that the local authority designs and provides the service on the basis of what is felt will best fit the community and its assessed needs. The metaphor that O'Reilly offers suggests that the role of government shifts from one which serves residents with a set of pre-packaged services to one where residents work with the institution to develop their own, bespoke package of services. This suggestion of a mass customisation and co-creation of public services is intended to allow a flow of innovation into a sector that has retained a command and control approach to the public requirements.

The resident within this model becomes the informed citizen-consumer, not simply either an object that is subject to government or a disinterested transactional customer but becomes an active agent in the matrix of governance. This is, in Internet-speak, the development of an architecture of popular participation. This is a complex view of governance, and involves as many participants as there are individuals, it is governance at its most complex and lowest level, the reality of this

as a model is however open to question. The potential for the use of Internet technologies to facilitate the levels of participation and civic activism, that following Grimmelikhuijsen's (2010) use of the term in describing transparency may be described as computer mediated participation, and mass co-production of services.

Examples of the co-production of services and of government operating as a platform are limited largely to the social services arena currently. The development of the personalisation agenda in adult social care has led to a "*fracturing of the bureau*" (Lymbery, 2012, p. 13) as those who are empowered to procure their own social care are doing so in new ways that don't necessarily fit the standardised and centrally contracted services offered by local authorities. Such services can offer new challenges to the established way of considering individual needs and personal priorities. The platform approach signifies a marketization of services and development of personal choice in these services (Flowers, 2013); consequently the technology model is offering a radical challenge to the status-quo. This is not an approach that can work in all public services, for example the provision of emergency services which may be considered as natural monopolies from a service user perspective. O'Reilly (2011) likens the essential services of Police and Fire Service to the operating system of society, it has to be centrally provided and it has to be controlled (but as in the case of Linux, it can be open and transparent). Outside of these core operating system services, innovation can be encouraged. The platform's role in this is two-fold; to encourage innovation and competition among suppliers, but also to enforce standards and ensure that suppliers are

meeting the required (local) standards for service delivery. The market is not uncontrolled, rather it is managed for basic quality. These standards may be set at the local level and be reflective of local priorities. The case can be imagined that local planning decisions can be made by any number of bodies, working to the agreed rules, regulations and local plans.

The platform approach to service provision and by extension to the development of services relies upon the availability and transparency of information. The notion that public information should be genuinely public, and available to discussion and dissection by anyone who is interested, is one that is attractive. This opening of information supports the changes to the relationship between the information creator and the informed resident that Gov2.0 proposes.

A number of cities around the globe, such as New York and Vancouver, as well as local authorities in the UK such as London Borough of Hackney and Kent County Council have hosted competitions for public service applications. These competitions are examples of the development of platform provision, where new and innovative services can be developed without the authority directing, or funding the activity directly, but do serve as a form of procurement (Johnson & Robinson, 2014). One such service that has been developed nationwide is the national public toilet map. This initiative has been produced using local authority data, as well as public contributions to provide an online, mobile friendly, map of all public conveniences in the UK, not just those managed by local authorities directly but also privately managed facilities in shopping centres and so forth. As funding

for public toilets has been reduced, and over 13% of public conveniences closed since 2010 (Daily Telegraph, 2013), this service provides individuals, such as those with Crohn's disease, with information to increase their confidence when they are somewhere unfamiliar, supporting the individual to lead a full and active life. While the application does not address the cuts to the service directly, it is an innovative new way of tackling the problem that has arisen. These services require accessible, transparent information to be published, and for users to be willing to share and interact with each other to maximise the dispersed knowledge, through what Surowiecki (2004) describes as a co-ordination problem.

3.6.2 Transparency of information and open data

The availability and use of data is the building blocks of the modern Internet, its aqua-vita, the very life blood. Data includes the information produced and disseminated, whether this is photographic, written or machine readable code. The open data movement seeks to bring transparency to the (non-personal) data of government, the digital data that is collected as a routine part of the business of government, and to share access to these data to allow it to be reused and republished (Johnson & Robinson, 2014). This ability to view, manipulate and share data is a cornerstone of definition of the Web2.0/Gov2.0 differentiation. Examples abound of this trend with websites including Data.gov.uk and YouTube built to take advantage of this desire to share and mine information. Data is unfettered information, and the web is a web of information. Not all information is reliable, and not all information is seeking to tell a truth. The availability,

management and storage of data, be it numerical, textual, geographical, visual or audio underpins the growth and functioning of Internet applications. O'Reilly states that *"Every significant Internet application to date has been backed by a specialized database...Database management is a core competency of Web2.0 companies so much that we have sometimes referred to these applications as "infoware" rather than merely software."* (O'Reilly, 2007, p. 27).

Transparency is an abstract concept, with much discussion referring to it as an illumination, or lifting a veil of secrecy within government, without providing exactitudes for the data that should be made available, aside from an inexact idea of personal data. The concept of what constitutes personal and private data is culturally resonant, for example in Norway and Sweden individual tax returns have long been published (Swift, 2012). Public attitudes to transparency are closely related to trust in government, and cuts across various dimensions of accountability including fiscal, performance and political (Piotrowski & Van Ryzin, 2007). Transparency refers to disclosure of information held within an organisation to those outside of it, the information provided may relate to how and what decisions are made, behaviours and processes followed, functions and performance delivered. Transparency can be implemented at all steps in the policy making process, while the policy is being formed and evidence gathered, at the point of decision, through the implementation of measures to enact the policy and through the monitoring of policy outcomes (Grimmelikhuijsen, 2010).

Growing and developing data and information has long been a mainstay of the

administrative state, and a significant role of government. Data catalogues have always been built by administrations (Howard, 2011 (b); 6, et al., 2002) and the management and control of information is one of the mainstays of the administrative state. The desire to record, understand and therefore be able to profit from information can be seen to date back as far as government itself. The Domesday book of 1066 was a key data gathering exercise allowing the newly installed Norman administration to understand the nature of its new wealth, and to be able to impose taxation. The link between the need to understand the nature of the realm, and the desire to extract taxation from it can be seen in the earliest property taxes, which in the UK date from 1601. The Elizabethan Poor Law rates, property taxes levied at a parish level for the “relief of the poor”, required a local administrator to keep a record of who lived where, what their property was worth and whether they had paid, as well as needing to keep records of who had received the reliefs (Wilson & Game, 2002). Record keeping and administration, however took a great step forward in the 19th century, with the revolution in scientific management techniques being applied to the practice of administration.

That public bodies have always indulged in an information obsession is without dispute, that this information is publicly available however has not always been the case. Only since the introduction of the Freedom of Information Act in 2000 has the public had a general right to information held, created and collected by public authorities. Prior to this, information was considered a privilege of government. It *could* be released if the authority wished to, at the authority’s discretion and convenience. The Act changed that and provided a legal framework and

Information Commissioner to oversee adherence to the rules (Information Commissioner's Office, 2011). The demand for transparency, which is axiomatic for a functioning democracy, can be hard to quantify (Piotrowski & Van Ryzin, 2007), however over 400,000 FOI applications have been made to central government departments in ten years the since the Act's inception in 2005 (Ministry of Justice, 2014), and over 700,000 sent to local authorities (Harris, 2012) suggesting a public appetite for information.

Local authorities, prior to the introduction of the Freedom of Information Act (2000), neglected to make the majority their information public by default. 6 et al. (2002) identify, referring to cybernetic theory, that information and complex management information systems provide increasing levels of management control (6, et al., 2002; Overman & Loraine, 1994), and therefore act as levers of power. Therefore, by an asymmetry of information, the privileged position of the local authority can be maintained. Overman and Loraine (1994) state that information theory, has three core assertions:

- *“Information decreases uncertainty*
- *Information slows entropy; and*
- *Information increases system control. Control is the management process of decreasing or dampening variance in a system... by feedback and deviance correction”.* (Overman & Loraine, 1994, p. 194).

This logic can be traced to the scientific rationalist management movement and

can be seen to have reached its zenith in the performance management and reporting systems of New Public Management (Longo, 2011) and the centralisation of control under New Labour (Dunleavy, et al., 2005; Stoker, 2004). The transparency of information can be seen as providing a rebalancing of the information asymmetry, and therefore an empowering of residents.

In the private sector, data is a core component of success. As O'Reilly argues, data and the control of data is the key to commercial success in the Internet commerce of Web2.0, and that Web2.0 is dominated by the use and control for profit of data. While information and data created by commercial organisations has a value, so too does information created by public agencies. Whether this value is exploited for commercial gain, as is the current case with Ordnance Survey (estimated value of £79bn – 2007), and British Geological Survey data (estimated value of £34bn 2007) (Cross, 2007), or whether publically created information and data should be treated as a public resource and made available for free, sold to the highest bidder to be exploited for profit or a combination of these. In addressing this question, Piotrowski & Van Ryzin (2007) draw upon the economist Joseph Stiglitz who argued that government information belongs to the public. As the data is gathered, and the information is processed by public officials at public expense, then the result is a public asset.

Central to the discussion of the role of open government and open (public) data is the consideration of public information as a public good, in the true economic sense. Public goods are defined as being non-rival, non-excludable goods or

services (Kaul, 2000). A simple example being a road sign, which is a basic piece of information made available to the public. The sign will not wear out from being looked at, and many people can look at it at once with no detriment. It would, of course, be impractical for all motorists to have individual road signs, therefore public provision is the most sensible option (Kaul, 2000). This also highlights the dilemma of public goods for government that may be looking to extract maximum value from their assets.

Once public goods are created they can be enjoyed by everyone, even those who did not pay or contribute towards their creation. This problem of “free riding” has been the fundamental deterrent to the private creation of public goods, the lack of profit. It may be argued, that this model and assumption has now broken down with Internet resources being made available as public goods by private companies. This free rider problem has traditionally been solved by the role of government, who by way of taxation can ensure that all (or almost all) contribute towards public goods (Bailey, et al., 2005).

The role and function of public goods, within a market economy is to provide goods or service that could not otherwise be efficiently provided, and which effectively deals with the free rider problem. In considering public information as a public good, it is necessary to deal with two fundamental questions. Do public data exhibit the qualities of a public good, and secondly if that resource is then re-used at a profit by a third party, is that an acceptable state of affairs?

If data are to be seen as a public good then that good should be made available to the general population to exploit. If we consider the public good of public information to be an available resource, and a resource that by definition cannot be used by one individual to the detriment of other users then it is right, at least from a neoliberal viewpoint, that this resource be open to the market. The neoliberal frame argues that government is put to best use by making markets available for enterprise to exploit (Miller & Fox, 2007), as well as supporting a libertarian paternalist strand of positioning government as a platform (Johnson & Robinson, 2014; Thaler & Sunstein, 2003).

The consideration of data as an exploitable resource is behind much of the work that is being carried out in New York, Chicago and other major US cities that have undertaken experiments in open data. In part at least this is an exercise in economic development, making the city's resources of data available to the market the City of New York hopes to stimulate and enlarge the number of digital and technology businesses and increase employment in this sector (The City of New York, 2011). Coupled to this the city is looking to maximise the potential for digital engagement, and to maximise the potential of Gov2.0 as a city government tool. New York has followed this up with competitions open to anyone to produce "apps"; that are applications for smart-phones such as iPhones, which make use of city data, and which serve the city's residents. Examples include the "*You The Man*" iPhone application that promotes not drinking and driving and Sketchfactor an application that combines official crime data and user experiences and perceptions with public mapping information to identify potentially dangerous areas

of the city of New York, and suggest safe walking routes. The aim of the app competition is twofold, firstly to provide a resource for the city, and secondly to draw attention to the city's intention to "*become the greatest digital city in the world*" (The City of New York, 2011, p. 60).

Central to the development of open architecture is the suggestion of crowdsourcing, of harnessing the knowledge of the masses, and of working outside of traditional intellectual property rights (Chui, et al., 2013; Mergel, et al., 2009). This architecture of participation is identified by Yochai Benkler, quoted in Mergel et al. (2009, p. 10) as being "*commons-based peer production*", noting that this represents a particular form of shared resource production and licensing of the intellectual property aimed at allowing and enabling wide access while providing some legal protection to the original creator (Creative Commons, 2011). Benkler suggest that the actions of individuals acting in response to their own needs, and desires, in a decentralized manner initiates a shared production of recourses. This is particularly the case in the social media elements of Web2.0, for example YouTube, which would not exist without the postings of videos. The suggestion implicit in Benkler's definition is that this form of production is carried out in common, in the same manner as land may be held in common for the mutual benefit of the livestock farmers, that is in the interest of the wider community, and without individual financial gain. The argument proposed, that public data meets the criteria of being an economic public good, is supported by the production in common which may be re-phrased as being a social public production viewpoint.

Treating information as a public good, allows for the next step of treating the products created with that information as commons based goods. With the rights to the raw materials secured as a freely available public good, the logic of the products being made available with limited intellectual protection and from an open source that is freely available at the point of use, may be pursued. This model has been followed by the White House in America, and the Al Jazeera TV network (Creative Commons, 2011). This free approach to the provision of information has a technological underpinning that is a core differentiation between Web1.0 and Web2.0. The shift away from large server stacks where information is stored for the owner's privileged use and into the distributed network, making use of users computers to not only share the work; but also making available the tools to do that, in the form of "*lightweight programming models*" (O'Reilly, 2007, p. 31). Allowing users to access, and change the use that the data can be put to, have been key outcomes of the shift to Web2.0. The availability of Application Programme Interfaces (known as API's), which are the coding that allow programmes to interact with each other, has spawned a plethora "mash-ups", where different elements of programmes and web sites are intermeshed to create a new product. The positive encouragement of this civic entrepreneurship by public authorities, for example the City of New York (Howard, 2011 (a); Howard, 2011 (b); The City of New York, 2011), typifies the Web2.0/Gov2.0 approach, that is free provision of the raw material (data) to enable the production, distribution and profit by others. This enabled creativity furthers the development of new ideas, and may be used to open access to public data, and therefore to increase transparency in government. The purpose of the availability of data is to encourage participation in

the democratic process, and by increasing the transparency of government to allow the public to better call and hold it to account.

3.6.3 Social engagement and participation

The enablement of e-participation and the furtherance of the mechanisms for direct participation are the final piece in the model. The previous elements in this model combine to create a pressure for involvement in the process of governing and decision making. This pressure must then be integrated into the institutional arrangements of English local governance. The facilitation of public engagement that is beyond the superficial, and which provides a collaborative democracy and route to democratic engagement, (Noveck, 2009) allows the local state to become an enabling actor. This then allows a broad and populous network to function and take part in the decision making process, providing their expertise, knowledge and experience while maintaining the legitimacy of the system. This is the harnessing of informal knowledge that has been previously subjugated (Foucault, 1980) and omitted from the formal processes of decision making, and therefore alters the nature of the power relationship between residents and professionals. This enabling role echoes the role of the authority as a platform provider, where the authority's role is to maintain the agreed standards of provision. In this case, that role becomes providing the channels for participation outside of those of the party political process.

The prevailing democratic model can be traced back to the ancient Athenian

concept of the demos or people (that is the free, male citizenry) engaging and participating in the political and government affairs of the city state, within this, the ancient model of democracy had at its heart the concept of the political virtue. Political virtue holds that participation in matters pertaining to the government (Held 1995) is the right thing to do, and to be an engaged citizen is praiseworthy, a point strongly articulated in Thucydides's *The Peloponnesian War*. "*We Athenians, in our own persons, take our decisions on policy or submit them to proper discussions: ... the worst thing is to rush into action before the consequences have been properly debated*" (Held, 1995, p.17 quoting Thucydides). While the functioning of classical democracy may be looked on as partial and stilted given the non-representation of elements of the community (notably women and slaves), the ideals outlined offer a strong descriptor for the basis for the wider participation of the community. Does the Internet and online participation create a window through which we can witness political virtue being enacted? My argument is that the public displays of this political virtue, the active engagement by the citizen in the process of governance is a virtuous act, and that spread of such acts is increased when they are publically visible. The online participation and use of information that marks Gov2.0 may then be classified as being democracy seen to be done, much as the administration of justice on the court room is a theatre of justice allowing the public to witness the act of the dispensation of justice as much as the dispensation itself.

The strength of the Athenian model of democracy was, in principle at least, engagement of the polis in the debate, and the quality of the civic discourse. The

proper discussions are the open and detailed public debate of the question at hand. The modern, western liberal-democratic system used in the UK is not predicated upon the Athenian model of an open forum for discussion. Meetings are held between representatives of the people, not between the people themselves. Wider public access to the debate is only as an occasional witness to the discussions, not as a participant. This culture of government, where decisions are taken on behalf of the citizen, has led to poverty in civic discourse (Weeks, 2000).

The concept of citizen participation is articulated by Arnstein, who in 1969 published the “Ladder of Citizen Participation” which ranges from manipulation of the powerless by the powerful on the lowest rung up to the citizen control in which ‘have-not’ citizens are in the majority of decision making positions and are able to exert managerial power, making them in effect the power holders (Arnstein, 1969), in turn creating a new set of those excluded from power. The concept of the ladder is a useful illustration of the range of possibilities for participation within the discourse. If citizen involvement in the policy process is to be meaningful, it has to move from the lower to the higher rungs, but in the process those in power have to provide the necessary skills to those traditionally excluded to enable them to play their desired role. The reason behind the decision to engage the citizen in the policy process is key to the choice of method. This, of course assumes that the decision is a top-down one, and that the community are not pressing for inclusion, or are participating through informal routes. This brings to bear the question of the rules in use, be they Habermas’s discourse ethics or a looser less normative set of guidelines (Lowndes, et al., 2006) for the participation and the power relationships

between the community and those elected to govern. When seeking to engage the community in the policy process, it is vital to understand what this means, and therefore what is expected, what the limits to their participation are; Arnstein's ladder provides scale for judging this against. The growth of Gov2.0 and in particular the increase in the publication of data and information allows us to move inexorably higher up the ladder. This openness and transparency allows for the debate and the presentation of new analyses not in the ordered manner of the official consultation or "public debate" of the professional politician, but rather in the ambiguous and ad hoc manner of the crowd. Ad hoc deliberation as new analyses are publicised gives meaning to the suggestion of adhocratic participation; participation on demand, rather than on supply.

Accepting that the role of promoting and enabling informed dialogue within the wider population is essential to enabling participation, there is a fine line for the authority to tread between providing accurate and neutral information which is neither propaganda at one extreme, nor puts people off the process for fear of public ridicule in case of failure at the other. Information has to allow the public to feedback views which are rooted in reality, and in this way the authority is able to learn to trust the process. The dialogic approach to participation can produce solutions to the four principle problems associated with community participation:

- Narrow selection of the community who are willing to be engaged.
- Deliberative process is required for decisions, rather than simple public opinion.

- Policy makers and citizens need to trust the results.
- Learning about public problems means having to work with the ‘problem public’ (Weeks, 2000).

Community dialogue resolves some of these problems by providing information freely to all, providing realistic boundaries as to the scale of the response to the problem and the involvement of the community in drawing out their preferred solutions. This process uses a wide variety of methods, ranging from workshops to newsletters, questionnaires and surveys, the methods are designed to be engaging and realistic. The breadth of methods used is inherent to the success of the approach (Weeks, 2000).

The process of community deliberation rests on the presumption that participation is achievable, participation that may be enabled through the functionality associated with social media and many-to-many forms of transparent communication. Large-scale deliberation offers a way to understand the diversity of resident opinion. Gutman and Thompson (2004) propose five characteristic features of a deliberative process:

- 1) *Reason giving* – “Persons should be treated not merely as objects of legislation”, but the reasons and truths behind the policy should be available for all to see & discuss.
- 2) *Accessibility* – the information and reasoning behind a decision must be understandable, available and challengeable by all. This means not hiding behind incomprehensible language or technicalities.
- 3) *Binding Decisions* – At some point the process of deliberation must cease, and a decision arrived at. By whom and how, the decision must be informed by the deliberative process which has preceded it

- 4) *Dynamic* – Any decision is binding only for a limited time; it is provisional in the sense that it must be open to challenge at some point in the future. The accessibility and reason giving which was present when the decision was made may be reinterpreted in the light of changes, altering the view of the decision, thus opening it to challenge.
- 5) *Reciprocity* –Those who are subject to the law or policy owe one another justifications for the mutually binding laws they enact

If local authorities are to try and lead, and shape the places they are responsible for, then the participation of those they govern is important. For the governed the participation in the governance process provides opportunities to influence and improve the system, and hold it to account. In the words of a French student poster quoted by Arnstein, “*I participate, you participate, he participates, we participate ...they profit*” (Arnstein, 1969, p. 216). With the development and widespread adoption of instant electronic communications technologies an opportunity is presented for enabling this on-demand, adhococratic participation.

Web1.0 has been identified as being grounded in publishing and Web2.0 built upon participation, one of the defining points of the second generation of websites is their focus on sociability and user interactivity (Cormode & Krishnamurthy, 2008; Berners-Lee, 2006). The high level content on the Internet that is intended to link people together, has spawned a new phrase, *Social Media*. The development of web-based platforms intended to facilitate many-to-many communications, such as Twitter, Facebook, Instagram, Flickr and Streetlife, as well as the harnessing of communications by companies such as eBay which without user participation

would not be able to offer the same level of service, provide an opportunity for local authorities to engage with a broad range of individuals at a low overhead cost (Ellison & Hardey, 2013). The notion of the active audience receiving, and engaging in political debate has grown with the development of the social web (Web2.0), to the point that many-to-many open communications are the expected norms (Iannelli & Giglietto, 2015) indeed O'Reilly argues that Web2.0 is premised upon a co-operative, mutually beneficial ethic, and an "*architecture of participation*" (O'Reilly, 2007, p. 27). The opportunity is available for local authorities to engage in 'e-democracy', and to facilitate a deliberative and potentially participative form of local citizenship (Gutmann & Thompson, 2004; Fung & Wright, 2003).

Within the broad heading of participation, is Surowiecki's (2005) "wisdom of crowds", the concept that the distributed knowledge within a large group is greater, meaning more diverse in terms of the breadth of subject knowledge and intellectual perspective, than that of a single expert, wisdom that can be accessed through the practice of crowdsourcing. Further, it is claimed (Surowiecki, 2011) that the use of distributed knowledge provides a safeguard for truth against the errant individual. This is the principle upon which Wikipedia works on (Wikipedia, 2015). If only a few individuals were responsible for Wikipedia, its content would be not only limited, but also arguably more flawed. Since the English Wikipedia was started in 2001, it has grown to over 4.9 million articles (September 2015) (Wikipedia, 2015), each of which may have been contributed to by many individuals over time. The notional idea of crowdsourcing knowledge is that within the masses, exists not only knowledge, but also the desire for truth. The same

principle of openness, sharing of knowledge, monitoring and adherence of standards and a willingness to be involved and to contribute to a shared endeavour underlines the open source software that is also a hallmark of the Web2.0 (Surowiecki, 2011).

The assertion is that Web2.0 and therefore Gov2.0 is premised upon mass participation, shared endeavour and interactivity; upon many-to-many dialogue, rather than monologue. This conversational approach can be seen in many of the Internet's success stories. Interactivity and user engagement is almost ubiquitous on news media web sites, with all stories large or small are the "your comments" sections. These discussion boards, sometimes moderated, other times not so, allow for an open dialogue and argument to be played out by the public. Comments are left regarding the original article, or story, and comments are made on comments posted. These discussion boards and their convoluted threads of conversation do not endeavour to reach a consensus; rather they allow an interchange of ideas, and an opportunity for dialogue. At no stage is a conclusion reached other than by the passage of time and the closing of the discussion, and no attempt is usually made to sum up the collective view that has been posted. This discussion then provides the forum for modern civic (political) virtue, where the discussion is open and all voices can be listened to equally.

Gov2.0 is not a panacea for the ills of local democracy, despite some of the claims made in the literature, such as the subtitle to Eggers book *Government 2.0 "using technology to improve education, cut red tape, reduce gridlock and enhance*

democracy” (Eggers, 2007) on discussion forums and in particular by technology companies. As with all stories where new technology offers a solution to the ills of society, the claims made are not necessarily representative of the eventual reality. The concerns that arise from the use of Gov2.0 are fundamentally questions of trust. Do we trust that the information released by government agencies is complete, accurate, and true? Do we trust our fellow citizens do be watchful of information that can be viewed, to ensure that it is accurate and is not ignored? That a thousand eyes can see transparent information is a step forward for democracy, but if all choose to, or are enticed to look elsewhere then has Gov2.0 and the notion of active citizenship failed? This is not a question of mutual interests over self-interest, rather of aligned self-interest (Surowiecki, 2011).

3.7 The practice of Gov2.0 and the example of Iceland

Experience of the practice and use of Gov2.0 as a tool for enhancing democratic practice and developing a rich level of public engagement has developed as the technology has matured, and experience has been accumulated. This includes the use of social media to facilitate transparent local authority-citizen interactions, to enable the conversational engagement of citizens as a tool for enhancing the democratic nature of local government (Ellison & Hardey, 2013). One of the earliest radical attempts to harness the technology of Gov2.0, or at least the transparent social engagement aspect of it was in the 2011/12 Icelandic constitutional reforms. The experience of Iceland in its innovative, but ultimately unsuccessful attempt at constitutional reform stands as an example of the

potential of the technology to harness the power of citizens in serious, far reaching debates and demonstrates that a publically transparent and accountable process can be used to develop complex policy instruments. The amended constitution failed to be adopted despite having been approved by a 2/3 majority of the population in a referendum, it stalled in the parliamentary process for political reasons. While the Icelandic experience was ultimately unsuccessful insofar as the amendments to the Constitution itself are concerned, the use of technology to support a transparent and inclusive process can be seen as a success.

The Constitution of Iceland was first written in 1944, when it gained formal independence from Denmark. Iceland had been governed by Denmark (and Norway-Denmark prior to this) since 1397 (Diamond, 2006, p. 202). The election in the 2009 general election of Johanna Siguardardottir, a champion of constitutional change, who as Prime Minister brought the issue of reform to the surface (Landemore, 2014). While the existing constitution had sufficed for over 65 years, Iceland experienced a number of dramatic shocks between 2005 and 2010 with the eruption of the Eyjafjallaökull volcano bringing chaos to international flights, and the 2008 financial crises, which led to the collapse of the nation's commercial banks, placing severe strain on the small nation's economy, and a popular scepticism of the ruling elite, the so called "finance Vikings" (Valtysson, 2014).

The process of redrafting the Constitution was carried out in a fundamentally participative manner from the start, which is not to suggest that the drafting was

developed as a “commons-based peer production” or mass act of collective authoring in the way of a Wikipedia article. Rather two sets of 950 Icelanders, chosen at random, were appointed to a National Forum to discuss the principles that should guide the new constitution, and to review drafts of prepared text (Landemore, 2014). These included the separation of powers, international relations, defence, and the position of Iceland with the rest of Europe. This led to the compilation of a 700 page report which included suggestions, such as Article 14 a right to Internet access, which were sourced from this appointed crowd and presented to the 25 Council members of The Stjornlagarao, or Constitutional Council. (Daily Telegraph, 2011; The Guardian, 2010).

The work of the Council was made public, and the public were invited to comment upon and forward suggestions to the Council. The key media employed for this purpose was Internet based social media, principally Twitter and Facebook, which represent two of the most popular tools available to Gov2.0. The constitutional review process was carried out in public. The process conformed to the notions of open data, and open debate. The success of the use of social media was such that the Facebook page supporting this work was directly engaged with by in excess of 1300 individuals (The Guardian 9/6/11), this equates to nearly 1% of the total population of Iceland. To put in perspective, this would equate to 700,000 people in the UK being actively and directly engaged in a major policy debate. To put that in context, it is approximately double the combined membership of the three largest national political parties (Keen, 2015). Landemore (2014), in her review of the process followed in Iceland concludes that the process applied and

tools utilised appear to be scalable from a small and cohesive and homogenous nation state to a larger arena.

3.8 Conclusion

This chapter has drawn together the major strands of the emerging term Gov2.0, through the development of a single model comprised of three interrelated policy ideas. The threads that provide the weft and weave are those of the traditional citizen/government relations, transparency and the ability of (or how to encourage) citizens to take an active part in democracy, and making the public sector more publicly accessible.

The continuing trend to make data sets public will open up to external challenge and scrutiny the working of government. This was clearly seen with the publication in the Daily Telegraph of MP's expenses in May 2009. This exposure of a system of expense payments led to calls for reform, to the departure of many long-serving MPs and to a number of prison sentences. The bright light of transparency and the resultant public outcry led to real changes (Kelso, 2009). This is a move to a degree copied by the coalition government elected in 2010, demanded that all council expenses over £500 should be published. A letter published by the Department of Communities and Local Government on 4 June 2010 said that *"Local people should be able to hold politicians and public bodies to account over how their hard earned cash is being spent and decisions made on their behalf. They can only do that effectively if they have the information they need at their fingertips."* (Department of Communities and Local Government, 2010, p. N.P). To

compliment this central government, via the Cabinet Office's Transparency and Digital Engagement Team, launched a web service called Data.gov.uk which currently (July 2015) holds approximately 26,500 data sets ranging from Foreign Office travel advice to OFGEM payments to suppliers over £25,000. (Cabinet Office, 2010), and 378 free applications built on them. These actions have led to groups such as the Taxpayers Alliance highlighting spending that is, in their view, a poor use of public money. Groups like this, however also highlight the phenomenon of the Internet echo-chamber. Reading the discussion boards of such groups, it is rare to see dissenting voices. Therefore the authors will respond only to their supporters, and are in the most part free from direct challenge.

A defining feature of the governance networks identified as arising from the use of Gov2.0 is their temporary nature. They can be defined, following Konieczny (2010) as forming an adhocracy, after Mintzberg's use of the term in defining management structures. Although the term was made famous by Mintzberg, its origins lie with Warren Bennis, who described temporary organisations as being *"adaptive, rapidly changing temporary systems... organized around problems to be solved by groups of relative strangers with diverse professional skills"* (Rourke & Schulman, 1989, p. 134). An adhocracy is defined as being a temporary arrangement or structure where power is distributed in a very flat manner. Strategies are not distributed from the top via complex reporting lines, rather they develop organically. Everybody is a decision maker, of sorts. The members of the adhocracy are all in their own rights "experts", working on non-standardized products. (Konieczny, 2010; Clegg, et al., 2006). Looking at the nature of the

temporary structures formed in these examples, the adhocracy model is a good fit and may provide a strong organisational model for the further analysis of these informal and temporary structures.

The theory of adhocracy appears to provide a strong descriptive model for the temporary nature of the participative democracy that Gov2.0 is bringing forward. The defining feature of adhocracy is its fluid nature and its lack of a defined and permanent core. In looking at the relationship between adhocracy and bureaucracy in public administration Rourke and Schuman suggest that adhocracy does not supplant, rather is an addition to bureaucratic organisational structures (Rourke & Schulman, 1989, p. 135). It is suggested that adhococratic democracy in the same way serves to supplement the traditional forms of democracy and of democratic engagement.

Participation may take a number of forms, drawing upon Arnstein's ladder, the steps at the bottom of the ladder range from non-involvement, to the provision of information either after the fact or while the decision is being made elsewhere, to non-binding consultation over the issue. This can be seen as informing the community of the process and the options for solutions which have been devised by those who are members of the 'governing elite'. The provision of such information is necessary for the basic accountability mechanisms which underpin representative democracy, and underpins the potential value of open government and of the shift to Gov2.0. It may be argued that once governing institutions move beyond this level of information provision they are shifting away from pure

representative democracy. If the purpose of representative democracy is efficiently facilitate decision making by the delegation of the responsibility of decision making, be that in the interests of economic or practical efficiency, from the wider community to those it chooses to represent it, then any undermining of this will lead to a less efficient system of decision making, but having more people involved in the process of making policy, rather than in other economic endeavours.

From this point of view, we can however see that the growth of participation in the process weakens the power of the executive representative and by extension the bureaucracy and professional policy making groups, the technocracy, those professional policy experts who have assumed the role not only of advising politicians, but of promoting policy choices (Fischer, 1993). This increase in the level and breadth of participation provides increased opportunity politicians to engage with their residents in new ways. If the role of the executive is that of the determination of policy solutions, then the supply of potential policy solutions is increased by the use of wider participation. This should, it may be argued, drive the bureau to increase its efficiency in operation, and increase the quality of its policy goods (i.e. better solutions than others in the market are able to produce). It may therefore be argued that the widening of the policy arena to include the general community represents a mechanism for improving the functioning of the bureau (Niskanen, 1975; Tullock, 1974).

For the presented model to be applied to the practices of Gov2.0 within the context of English local government, a fuller description of the practical functionality is required, without which it is not possible to identify whether the descriptions if presented in the literature are extravagant and vacuous assertions or is the delivery phase described by the research consultancy Gartner as the “plateau of productivity” (Gartner Inc., 2015). The next chapter explores this functionality in greater detail, presenting an analysis and description of the components of Gov2.0 as they are presented in the literature and as they may be presented by individual local authorities to the public.

CHAPTER FOUR: THE FUNCTIONALITY OF GOV2.0

4.1 Introduction

This chapter explores and assesses the practices and practical functionality of Gov2.0 in detail, drawing upon the theoretical and practical literature to explore how Gov2.0 can be delivered. This thesis has defined what Gov2.0 'is' theoretically, its relationships to other terms such as Digital Era Governance (Dunleavy & Margetts, 2010) and Smart Cities (Newsom, 2014; Townsend, 2013), as well as barriers to its adoption and presented theoretical model of what constitutes Gov2.0. The specific practices can be identified individually, however as previously discussed; one of the definitive aspects of Gov2.0 is the drawing together of these tools into a collective whole. It is these specific practices that serve to define the practice of Gov2.0.

The practices are divided into three domains informed by the master frames found in the literature, drawn from the model developed and presented in chapter three: Transparency, Platform Delivery and Social Engagement. Transparency tools include those that are recommended by the Government as part of 2014 Local Government Transparency Code which forms a basic level of information transparency that all authorities should meet, and a second set of functionality that aims to expand the volume and depth of information that is published. The Code forms the backbone of the Government's drive to increase transparency in local government as part of the wider localism and transparency agendas.

Within the transparency domain, there also exists a set of wider transparency tools and functionalities which go beyond those proposed by Government. The second domain contains functionality intended to leverage the many-to-many interconnectivity of the Social Web for local government/resident engagement and finally a domain that contains the functionality that facilitates the development of platform provision of services. Together these three domains, of which transparency is by far the largest in terms of the volume of artefacts, form the public experience of Gov2.0 in practice.

The descriptions of the practices of Gov2.0 presented here outline the expected functionality that is drawn from the literature, as outlined in table 4.1 below. Much of this literature is drawn from the USA and Canada, and presented in an evangelistic tone that offers an optimistic portrayal of the subject in keeping with the modernist-technologist master frame. It is noted that levels of functionality offered to the public can, and will, vary between locations. As Stewart pointed out in evidence to the Public Administration Select Committee, the exciting thing about local government is "*how one authority differs from another because of the nature of the area and the quality of the leadership*" (Wilson & Game, 2002, p. 4). The local distinctiveness and tailoring of solutions to the needs, or perceived needs, or the locality leads to strong levels of differentiation in the delivery of functionality and adoption of practice. The level of functionality presented within the description is at the fullest end of the expected levels of practice.

Table 4.1 Gov2.0 functionality and major literature references

Domain	Functionality or data
<p>Transparency (Department for Communities and Local Government, 2014; Coleman, 2013; Reno-Weber & Niblock, 2013; Creative Commons, 2011; Lathrop & Ruma, 2011; Robinson, et al., 2009; Fung, et al., 2007)</p>	Expenditure exceeding £500
	Procurement information
	Local authority land & property holdings
	Grants to voluntary, community and social enterprise organisations
	Organisation chart, senior salaries and pay multiples
	Parking revenues
	Number of controlled parking spaces
	Constitution
	Register of members interests
	Open data warehouse
	Open API
	Data format
	Open licence
	Performance reporting & data
Broadcast of council meetings	
FOI disclosure log	
Co-design of services	
<p>Social Engagement (Newsom, 2014; Kannan &</p>	Online consultation system and archive
	Publication of consultation responses

Chang, 2013; Surowiecki, 2011; Noveck, 2009; Osimo, 2008; Eggers, 2007; Enserink & Monnikhof, 2003;)	Online petition system
	Co-decision around services (public decision making)
	Use of social media to alert or inform users to services
	Use of social media to deliver services
Platform Provision (Buser, 2013; Townsend, 2013; Lathrop & Ruma, 2011; Kimball & Ross, 2002; O'Reilly, 2011)	Co-production of services
	Open data mash-ups and sponsored Hack Days
	Open data warehouse
	Data format
	Open API
	Applications developed to deliver services by LA or other party

4.2 Networked linkages and connectivity

The first facet of Gov2.0 is not a specific piece of functionality, rather it is the result of the harnessing of web technology, and it is the networked connectivity that the technology delivers to the authority. Connectivity is a core and fundamental feature of the Internet, indeed without the linkages and identified connections, the Internet would not function. The establishment of the ARPANET, by the US Department of Defence in the late 1960's as a robust communications system capable of sharing computer resources such as programs and data and storage across multiple sites and users, led to the development of the data packet switching, rather than circuit

switching. This is a shift from the idea of a direct link such as a telephone circuit being used to transmit data, to collecting data into a packet, and it travelling along a shared, and re-routable link (Frank, et al., 1972), allowing the use of multiple connections to send individual 512 byte packets of data, which can then be recombined is central to the functioning of the Internet. This notion of re-routable data transfer forms the basis of Internet functionality, delivered using the IP (Internet Protocol) and its attendant addresses, the unique numeric address that all nodes on the Internet are ascribed. The Internet protocol provides the routing and linking tools that allow the transportation of data packets across the numerous possible routes available (Cerf & Kahn, 1974). An individual location on the network can then be accessed by all other locations using a wide variety of routes, with information being transmitted to the destination location simultaneously using distinct and variable routing methods (Cerf & Kahn, 1974). This flexibility forms the basic architecture of the Internet, accepting that this ultimately and almost infinitely flexible arrangement of links is almost the antithesis of a formal architecture.

The architecture of the Internet, since its inception, has been one of variable connections. The formalising and embedding of connections between nodes on the Internet, generally websites but increasingly with the development of the Internet of Things (Townsend, 2013), devices that can be connected to the Internet linking the real-world and the virtual, provides not only a simple user signposting mechanism but also a valuable signal of membership of a group or set of virtual community of interests. The local amateur rugby may have links to the national team website signalling their supportive relationship to the Rugby Football Union

(the sport's governing body) signalling their belonging and membership. The choice of links on a website, and what links to what is, therefore provides an important set of signals about the importance of the site as a node on the Internet.

For local authorities, the concept of nodality, and therefore connectivity has a deeper meaning, reflecting the authority's positioning in society, and how it interacts with its local community. The notion of nodality is central to the operation of the local authority, without sitting at the centre of a web of information and partnerships (Hood & Margetts, 2007). Indeed the theory of governance (Stoker, 1998) has shown the role of the local authority, and hence its power and prestige stems not only from its hierarchical position within the chain of government, and its democratic mandate, but from its position as a nodal point around which other local organisations and agencies cluster and relate to. In short local authorities cannot operate in isolation; they must be at the centre of their communities and of their community relationships. The same is true of their web presence. A council website with a low number of links inwards is not fulfilling its 'proper' function, nor is it supporting the council's remit. Hood and Margetts describe websites as fulfilling the role of "*a new generation of ear trumpets*" (Hood & Margetts, 2007, p. 40). Without adequate connectivity, that instrument will cease to function.

4.3 Transparency

Transparency functionality is partially mandated by the government within the 2014 Local Government Transparency Code. The contents of this code are

included in parts 4.3.1 – 4.3.7 of this section. The remainder of the section addresses the transparency functionality discussed in the literature.

4.3.1 Expenditure exceeding £500 – including payment by procurement card

The publication of expenditure at or above the legal minimum of £500 is intended to provide basic information to the “*army of arm-chair auditors*” that the Department of Communities and Local Government (2010) hoped would hold local authorities to account, and which to date have only sporadically appeared (Worthy, 2013). The publication of this information is, perhaps, the most basic of the requirements that government insists upon in its 2014 Code for Transparency. This requirement includes the publication of information that relates to spending made on the authority’s registered credit or procurement cards, as well as traditional invoice payments. Procurement cards allow identified individuals to make low value purchases without the need to enter into complex or expensive procurements, as well as avoiding the norms of procurement transparency. These cards provide the authority with a cost effective method of purchasing small items with a minimum of fuss or bureaucratic overheads. It is expected that this information will be available in a machine readable manner, in a spreadsheet format, with details of the value, originating department and purpose of the expenditure as well as the actual supplier.

The clear intention of this functionality is to enable the public to trace, understand

and challenge items of local authority expenditure. This requirement may be seen in the context of the Secretary Of State for Communities and Local Government, Eric Pickles, call to hold local government spending to account, and to challenge individual items and patterns of expenditure. Fundamental to the success of this aspiration is the ability to contextualise spending. For example the spend data may show a large amount of money spent on taxis; this may be either an exorbitant way of getting councils officers to meetings, or may be how service users are supported to get to day-care. Without the correct context, the data can be misleading. The question remains unanswered by the government's code whether it is the role of the publisher to provide this context for each item of spend, or for the reader to seek such context and understanding prior to making judgements of the worth of said expenditure.

Two examples illustrate how this functionality is delivered to the public. An example of self-identified excellence in this area is Hammersmith and Fulham Council, through their partnership with data analytics company Spikes Cavell, using their "spotlight on spend" website³, a commercial product that offers citizen friendly access to spending data, and some basic analysis tools. That a market is developing in the provision of transparency information suggests that authorities are increasingly undertaking this type of publication, but also that they wish to manage and control the process in a contractual manner. Whether managed transparency is the same as open government remains to be seen. At the other end of the spectrum is Wigan Council, who on their "transparency" web page (at

³<http://www.spotlightonspend.org.uk/317/London+Borough+of+Hammersmith+and+Fulham/Spend/Annual>

the time of the sampling, June 2014) recommends that residents interested in obtaining details of the authority's spending submit a detailed request to the Freedom of Information email address.

4.3.2 Procurement information

Procurement information published by local authorities comes in two distinct flavours; information for potential suppliers to the council which includes upcoming calls for tenders, and information regarding contracts that have been placed by the authority. Within the Code, priority is given to the publication of tender notices with a value greater than £5000. Publication of these provides two discrete public knowledge bases; one for suppliers looking to sell to the authority and secondly to residents informing them what the authority is purchasing, and therefore what decisions have been made around internal/external service provision.

A second source of transparency in procurement, which is not discussed by the Government Code is the publication of the contract award notice, and the total value of the contract upon completion. The publication of contract award notices for large procurements is mandated under EU procurement regulations (2004/18/EC); however these apply only to large-scale procurements⁴. For the majority of small or medium sized agreements this information is not mandated for publication in the same way, but is held in the contracts register document. The publication of the contracts register would provide details of the contract, including the exact value of

⁴ The 2015 definition of an EU level public procurement is £172,514 for services and supplier and £4,322,012 for works (<http://www.ojec.com/thresholds.aspx>)

the contract and details of the supplier into the public domain as reusable data, as recommended by the LGA guide to publishing contract and tender data (Local Government Association, 2011).

Transparency of contracts awarded serves two purposes. It is seen as an economic stimulus tool, a method of opening up the market in local government services and by doing so reducing the price of these services and again as a way of shining a light on the activities of local government (Department of Communities and Local Government, 2010). The publication of both procurement opportunities and the contracts register meets the objectives of raising awareness of how and where local authorities spend money. Taken in conjunction with the publication of invoices paid, the public are in a strong position to monitor contracts. The missing piece of the puzzle however is the detail of the contract itself.

4.3.3 Local authority land & property holdings

One of the ostensible purposes of the publication of this information is to support the identification of surplus or redundant property, and thus free this up for either new community use or disposal. The identification, and mapping, of public property was one of the outcomes of the 13 pilot Total Place investigations held in 2010 (McKinlay, 2014). Publication of assets can support these motives, if the information is complete and is contextualised with meta-data about the use of the asset, its value and any income generated and its condition. This publication may also unveil a tension between an authority's desire to maximise income from

assets and wider community uses, including the opportunity for community re-use. The example of the sale of local libraries assets many see as being valuable to the community but which by virtue of their locations within residential areas may have significant potential value as development sites.

The publication of data (which would be expected to include the Northing and Easting coordinates of the asset, its condition, last valuation and its current use) concerning the land and property owned is another key piece of transparency data, that allows residents to understand their authority, as this provides them with the tools for positive engagement. The publication of these data can be enabled and supported by the use of Geographical Information Systems (GIS), which allow the plotting of assets on publishable maps. This is a step forward from the historic approach of an asset register that was included in the full accounts, detailing the number, type and value of land and property assets.

4.3.4 Grants to voluntary, community and social enterprise organisations

The issue of grants to voluntary organisations and the third sector is one of the ways that the local authority is able to deliver its policy objectives. Grants to community groups can vary in size from hundreds to tens of thousands of pounds, therefore transparency over the choices made, and the history of funding choices are an important piece of information. This information, when combined with details of the outside interests of elected members can identify potential areas of impropriety, as well as correcting information asymmetries and demonstrating how

the authority is delivering its strategies. In the LGA response to the 2013 draft transparency code, it was argued that information be published “*according to local priorities and demand*” (The Local Government Association, 2014), rather than consistently and irrespective of local demands. The LGA’s response in this area highlights the potential gulf between desire for transparency and the tradition of local authority practice.

Lutfur Rahman, who was elected as Mayor of Tower Hamlets in 2010, and subsequently re-elected in 2014, was found guilty of committing electoral fraud (London Evening Standard, 2015) and was involved in a number of dubious decisions, such as the sale, and subsequent change of planning use for the Old Poplar Town Hall to a company, Dreamstar, which had connections to the Mayor. Allegations that this was “inappropriate” led to an Overview and Scrutiny investigation. A BBC Panorama investigation “The Mayor and Our Money”, first broadcast on 31 March 2014 also alleged that the Mayor was responsible for diverting £3.6 million of grant funding to organisations in return for their political support. While allegations of this nature sit at the most extreme end of alleged wrongdoing, this underscores the argument in favour of transparency for grant giving.

Beyond the allegations of impropriety, the argument in favour of the publication of grant information is rooted in fairness and equality of access. Local government grants are prone to information asymmetry and therefore the potential for what Fung et al. (2007) describe as adverse selection, with those organisations who

have been previous recipients of grants having a better understanding of the process and therefore the grant programme becoming limited to a small group of regular recipients and not necessarily meeting its objectives.

The objectives of this area of transparency, which are a combination of improved efficacy and a reduction in the risk of wrong-doing, or the appearance of wrong-doing are met through the publication and openness of the process.

4.3.5 Organisation chart, senior salaries and pay multiples

Understanding the managerial composition of the authority is an important step in demystifying a local authority's activities and whose responsibility, at a senior officer level, these are. This publication is important from an accountability perspective; however for the employee the level of direct scrutiny which places them under may be uncomfortable, or unwelcome.

The publication, alongside the organisation chart, of all posts and their salary levels above £58,000 is seen as a valuable accountability measure, and must be seen in the light of the controversy in the early 2000's over the salary of a number of local authority Chief Executives, whose annual remuneration was greater than that of the Prime Minister. A position that led to newspaper which proclaimed that "*220 town hall bosses earn more than David Cameron*" (Daily Telegraph, 2011). While there is a clear public interest in the salaries of senior local authority officers from the perspective of perceived value, this information is highly personal for the

individual and publication could be seen to conflict with the maxim that personal information should not be published. The conflict between transparency and the publication of information that is of legitimate public interest (as opposed to of interest to the public) and the imperative of privacy (Jonas & Harper, 2010) is a debate within open government, for which there is not a clear or simple answer, rather a case by case basis is used.

Publication of the authority's pay multiple, the rate of difference between the highest paid member of staff and the lowest paid (normally given as a ratio) is prescribed by the 2011 Localism Act (chapter 8), as part of an annual Pay Policy Statement. This information can be considered alongside the publication of officer remuneration, for senior officers. This is a sunlight tool, exposing the workings of the authority to public scrutiny. Set in the context of the public debate over public sector pay, a debate which sparked headlines that claimed "*State sector still getting the biggest wage rises*" (Daily Mail, 2013), and the on-going austerity programme that has led to pay freezes for public sector workers, this information allows senior decision makers to be held to account by both tax payers and other members of staff. By placing within the public domain the details of the responsibilities and remuneration of individuals the council is opening itself, and those identified to a level of scrutiny not previously witnessed.

The stated aim for the publication of this information is to make clear both the structure of the authority, in terms of its departmental organisation; and to identify the ownership and responsibility of service delivery. A further and unspoken

objective is to open up the policy making matrix of the organisation. This represents a significant break from the traditional approach of elected members taking the formal and public responsibility and officers working to their order. This is a recognition of the “*joint elite*” model of policy making presented by Wilson and Game (2002), in which the practice of policy making is a joint enterprise between senior elected officials and senior appointed officers.

4.3.6 Parking revenues and the number of controlled parking spaces

The publication of revenues generated from parking operations arising from the management of car parking and associated enforcement actions, as a distinct item separated from other sources of revenue is in essence a political act arising from public and central government concern around the impact of a perceived “*war on the motorist*” (Department of Communities and Local Government, 2011). The DCLG press release identified that:

“...councils and communities will be free to set parking policies that are right for their areas. This could include taking into account the effect of parking charges on the vitality of their local economy and local shops. Councils wanting to attract shoppers through setting competitive local parking charges in town centres will now be able to do so without interference from Whitehall”.

This identifies how the parking charges are framed, as being a disincentive to parking, and placing the locality at a disadvantage to out-of-town retail locations

that are able to offer free parking, and at the same time to suggest that this position arose due to influence from the previous government. However the same press release also stated that *“Today the Government is calling off Whitehall’s war on the motorist We expect councils to follow suit.”* (Department of Communities and Local Government, 2011), suggesting that the influencing role of central government is far from over in this most local of policy decisions. In a related vein to the information regarding the value of parking revenues to the authority, the publication of the number of parking spaces which are controlled, and therefore subject to income generation is seen as an important marker by government for how the locality is managed.

Understanding how the Council operates, the levels of income generated and costs incurred in the delivery of service supports the public’s ability to hold the authority to account, specificity in a service area that is subject to political interest. The accessibility of the information, including the income raised and how that money is utilised, allows a factual political debate.

4.3.7 Constitution

Publication of the local authority’s constitution, the document which under the Local Government Act 2000 specifies the working and decision making arrangements for the council’s elected members is intended to allow anyone who has a relationship with the authority to understand who is responsible for a particular issue and how they can make representations about that issue. This will

include the schemes and powers of delegation that exist within the authority (Lester & Sandra, 2001). By making these documents accessible on their websites, the intention of the 2000 Act is delivered.

Documents such as the constitution are important for the functioning of accountability and to underscore public understanding of the processes through which the authorities work, however they do not and cannot be expected to fulfil the same role as public data. These are not pieces of evidence that should be repurposed. Therefore the requirement for openness of format is irrelevant, even counterproductive. Public documents such as the constitution should be replicable without the risk of change or amendment, this is central to public trust in them.

4.3.8 Register of Members' Interests

The Register of Members' Interests is a key document produced by local authorities recording the pecuniary and other relevant interests that are held by elected members. The information that has to be recorded is detailed in the guidance note issued by the Department of Communities and Local Government. This guidance rather than being a checklist of interest that are inside, or outside the scope of registration places the onus upon the individual to ensure that they are registering any and all interests that may have a bearing upon their conduct, having reference to the seven principles of public life introduced by Lord Nolan in

1995⁵. This list of interests will include any employment or activity undertaken for profit by a councillor or their spouse (including civil partner), and payments or financial benefits received including contributions toward supporting the individuals activities as a councillor including the expenses associated with elections. Any contracts made between the individual, their spouse or partner and the authority, any licence held to occupy land or property in the authority area, including any of which the authority is the landlord or owner finally, the guidance identifies any shareholding held by the individual, their partner or spouse greater than £25,000 (or more than one hundredth of the total issued share capital) in a company with a place of business or land within the area of the authority.

This information has to be recorded as part of the 2011 Localism Act, however the requirement predates the Localism Act, and can be traced to the 1972 Local Government Act (Department for Communities and Local Government, 2013). The recording of this information against each member and also for the senior officers identified in the Senior Officers publications (those with a salary greater than £58,000) allows the painting of a picture showing how external influences may impact upon council decision making. One clear concern in this is that those with something to hide are unlikely to make this public; self-reporting has, of course, a number of potential flaws in it. This information has the potential to be mapped against individual elected members, political parties and decisions made, to provide a valuable analytic tool, along the lines of the American system <http://allaregreen.us/>, which allows users to understand the donations received by

⁵ The seven principles of public life are Selflessness, Integrity, Objectivity, Accountability, Openness, Honesty and Leadership.

members of Congress.

The intention of this area of publication is to identify the type of concern previously identified with the Mayor of Tower Hamlets, and his relationship to the company Dreamstar. By making public the details of directorships held, other positions of responsibility and property assets held it becomes possible to uncover and publicise such stories.

4.3.9 Open Data warehouse

The open data warehouse, a single repository of data available to the public may be considered by many in the transparency and open data communities to be the Holy Grail in terms of data availability and simplicity of access (Alfred & Alfred, 2013). A data warehouse is described by Kimball & Ross (2002) as being distinct from the operational systems which are used for recording information; the warehouse is used for storage and most importantly retrieval. The purpose of the data warehouse is, according to Kimball & Ross (2002) to support business areas that have large volumes of data that needs dissecting, analysing, and that will be accessed by large number of people simultaneously. The data contained should be consistent and accurate to the source systems (Kimball & Ross, 2002). The components of the data warehouse are, simply the extract process from the source systems that council officers enter the data into; a data staging point, which forms a half-way house between the source system and the warehouse and allows the data to be manipulated to fit with the eventual destination, a final set of

destination database tables which comprise the warehouse itself and finally the retrieval system that allows the data to be made visible.

The data warehouse model offers two routes of entry for the extraction and initial analysis of data. This is either an Application Programming Interface (API) which allows developers to easily interact with and make use of the data in a third party application, or via a public facing web application that is accessible, ideally with visualisation tools to assist residents in making sense of the information presented (O'Reilly, 2011) such as budget simulator tools. The provision of simple, portal access to data provides a gateway to the opportunities of co-production, and platform development of new services to the public.

4.3.10 Open API

An open API (or Application Programming Interface) provides access for developers to automate the retrieval of data from a source system, such as a data warehouse for repurposing (Townsend, 2013; Robinson, et al., 2009). This interface allows the use and processing of scripted queries to fetch particular datasets. The API serves as an essential bridge for the development community to access data in an automated manner, and to develop services. As API's serve as bridges for the flow of information, a pre-requisite is the provision of information to be used, and accessed. For the development of coherent services, information publication has to become a routine and regular occurrence. Outdated or inaccurate information will lead to untrusted and unused services (Robinson, et al.,

2009).

An API can be called on a continuous basis, providing a continuous flow of data between services, as opposed to the idea of a file transfer that is automated to take place at a particular point in time (for example over night or hourly). The use of APIs allows the development of services using real time data.

4.3.11 Accessible data format and open licence

The format, availability and freedom to access and repurpose data being published is critical to its potential as a basis for the development of third party applications aimed at improving transparency or delivering new services. Data format and licence conditions have the potential to be significant blockages to this aspiration. The ability to repurpose data by hacking it (The Guardian, 2014; Johnson & Robinson, 2014), that is bringing disparate data sources together, enables users to produce new insights or new services (O'Reilly, 2011; Townsend, 2013).

Turning to the format of the data, the file format that it is produced in is relevant to these objectives of reuse and ease of access, as a closed or proprietary format that limits access undermines this aspiration. A typical closed format is the PDF, a format intended to allow documents to be read, but not edited. Consequently data, such as financial transaction data, that is produced in this format while legible to many, it is not accessible or reusable. No further automated analysis can be

conducted on the data without significant re-work. The data cannot be loaded into other systems to provide visualisations to help explain the story that the data is telling or cross analysed with for example the Register of Interests to reveal payments to companies with which members have disclosed a relationship. To meet the desired requirements of access, the data should be presented in a format that is machine readable, and is therefore accessible to multiple applications. There is no ideal format that advocates of Gov2.0 argue should be mandated, indeed many data consumers are adept at making use of any machine readable data (Alfred & Alfred, 2013).

Licensing restrictions potentially control the way in which information and data can be used by residents. Open use licensing, such as the National Archives Open Government Licence, is used by local authorities to govern and protect the use of data. The licence states, in its opening paragraph that “*You are encouraged to use and re-use the information that is available under this licence freely and flexibly...*” (The Controller of Her Majesty’s Stationery Office, 2014). The licence gives the users a “*royalty free, perpetual, non-exclusive*” (The Controller of Her Majesty’s Stationery Office, 2014) licence to use and reuse the information to which it relates, subject to acknowledging the source of the data. The licence ensures that neither the data nor its use are misrepresented, and do not present any claims of endorsement, stipulating that use of the data does not breach the Data Protection Act (1998) or the European Privacy and Electronic Communications Regulations (2003).

4.3.12 Performance reporting & data

Performance management information, the data regarding the assessment of the effectiveness and efficiency of activity are data that authorities produce but which due to the picture revealed may be reluctant to publish in its raw form. The rise of the performance culture in local government means that a plethora of things are counted, measured and assessed. (Wolf & Fry, 2013) These performance measures may be split between the statutory measures that central government requires public reporting upon, local performance management measures which are often at a granular level and ad-hoc performance reporting produced in response to a specific enquiry. Performance measures that are published form part of the citizens' repertoire of accountability, they inform the reader of how well, or otherwise, a given department is performing against a given measure. Targets can be the subject of much dispute, is the target too low, and therefore not stretching the department to improve, or too high as to be unrealistic, is it even measuring the 'right' thing. Given that outputs that are targeted and publicised will receive the most attention from managers, the choice of performance measure is not only important, but should be subject to public debate.

The publication of performance management information to the public is seen, by those who do it as an essential part of their performance culture, that it is the regular reviewing of data and taking corrective action including sharing this with the public, not on an annual basis where the results are presented as a media friendly sound-bite but as a "warts and all" account of the past sub-annual period

(Wolf & Fry, 2013).

4.3.13 Broadcast of Council meetings

The broadcast of parliamentary debates has been an established feature of the political world since November 1989. While the debate over the television was a long one, with the Commons debating the measure 11 times in 22 years (Parliament, 2015), the argument of the public's right to witness democracy and debate without the need to attend in person prevailed. The ability to attend Council meetings in person has long been enshrined, however the notion of broadcasting the meeting has, until recently been considered technically difficult and expensive. The opportunities to broadcast over the Internet have largely removed these obstacles (Kaylor, et al., 2001), and leaving a lacuna between the possible and the desirable. This void has, in a number of cases been filled by citizen journalists.

This debate surrounding the broadcast of publicly accessible representative chambers has shifted from the national stage to the local, in part as a response to the demands of citizens to film and broadcast council meetings acting as citizen journalists. This debate crystallised with the arrest of citizen journalist Jacqui Thompson who was arrested and handcuffed following filming at Carmarthenshire County Council, following a long running and bitter dispute between herself and the Council (Local Government Lawyer, 2013). The DCLG published in June 2014 a guide to council meetings, which clarified the argument that filming of meetings was not a breach of the Data Protection Act. The guidance also applies to other

forms of citizen journalism such as live blogging, tweeting and other forms of social media commentary, via the so called “right to report” (Department of Communities and Local Government, 2014).

4.3.14 Freedom of Information Act disclosure log

Freedom of information legislation was introduced to local government with the passing of the Freedom of Information Act (2000). Prior to this, there was no automatic right of public access to information held by a public authority, with the exception of areas such as planning, where previous legislation included the provision for publication and public access for specific items. The Act introduced the right to request and receive, subject to a number of specific exemptions, information held by the local authority. The exemptions to this are personal information, information that is considered to be commercially confidential, where the request is judged to be unreasonable or vexatious. If the request would lead to the authority incurring direct costs for more than 18 hours work these costs may be passed to the requestor. Costs may also be passed to the requestor for postage and printing.

Freedom of Information Act requests identify the areas that the public feel strongly enough about to request information. The disclosure of Freedom of Information requests and the responses that have been published by a council provides a public window on both the nature of requests that the council receives and the level of its response. The Freedom of Information Act was passed in 2000, and

while councils have generally reacted positively to this legislation, providing a wider and public analysis of what has been requested has been limited. The publication of requests for information and the responses generated has been left to websites such as www.whatdotheyknow.com, which lists (July 2015 figures) over 281,600 requests made, and their responses (Whatdotheyknow.com, 2015). The log produced will ideally be searchable and contain both the question submitted and the response provided (with the recipient's name and contact details redacted).

4.4 Social Engagement

4.4.1 Use of social media to deliver services and alert or inform users to available services

Social media, which has become the catch-all term for a range of web-based services intended to facilitate many-to-many communication and social interaction on the Internet, may be used by local authorities in a number of ways. These can be from the basic adoption of the technology as a broadcast tool to inform and educate residents through to the use of the technology to co-produce services directly (Ellison & Hardey, 2014). Social media are, according to Newsom (2014), a disruptive force which allows individuals to self-publish and distribute their ideas at no or very low costs. This conception of disruption can be seen in the popularisation and easy availability of the printing press as a way of allowing the publication of pamphlets during the coffee-house revolutions of the 17th century.

These pamphlets allowed their authors to circulate ideas relatively cheaply and easily, with subjects ranging from moral philosophy to cartography and indeed the development of the stock exchange (Preston & Preston, 2005). The circulation of printed information in coffee houses allowed a bypassing of the traditional and controlled media of the day, and free exchange of ideas. This opening of the exchange of ideas was, certainly in part, responsible for the development and spread of democratic ideals.

The tools of social media can be adopted equally both by residents for contacting their authorities for identifying, contacting and mobilising like-minded others, and by the authorities for contacting and engaging with residents and groups of residents. For the local authority, this way of communicating may require work to educate residents that this is a feasible option. Social media may also be used by the authority as a broadcast form of communication, an electronic version of the local magazine or newspaper; however the bilateral nature of these services works against this approach. The technology also offers the opportunity to deliver services in conjunction with residents, and a productive way of harnessing the notion of collective wisdom.

Within the context of the discussion of service delivery, includes contact made by residents requesting services or physical works to be completed, as a form of co-production (Nielsen, 2011). If a resident identifies that trees are dangerously overhanging a cycleway and reports these, then that resident is contributing to the resolution of the problem. This is the resident acting as the eyes of the authority,

with residents helping others to avoid problems and get them resolved. The use of social media in this context provides an additional benefit, as the wider user base can see that what has been (or not been) done with the information. In effect transparency monitoring and underpinning a crowdsourced information supply. Sociability, and the ability to harness, and inspire its use is described by Townsend (2013) as being the “killer app”, by this he is referring to the benefits that the locality can accrue through the use of shared knowledge and resources, sharing which the local authority can enable and encourage and potentially co-ordinate through the use of social media.

4.4.2 Online consultation system with archive and publication of consultation responses

Local authority consultation forms an important aspect of the way that the authority communicates, is seen to communicate, and initiates an active engagement relationship with its residents. Communication and active engagement, where both parties take an active role in providing each other with information and counter information, takes place outside of the formal political arena and electoral cycle.

Formal consultation represents a challenge to the notion of the elected representative, the principle that the elected representative is all that is needed to articulate the electorate’s views in all areas. This is a challenge to the election centric model of representative democracy that is practiced, and recognition that the views of residents are not necessarily best articulated by a third party (Shane,

2004). This recognition is often the case when the decision is seen as very personal, such as the determination of a planning application for a neighbouring property, but also in areas of significant local concern such as the closure of a school.

Arnstein (1969) in her ladder of citizen participation, identified consultation as an act of tokenism, suggesting that citizens may have a voice and that voice will be heard to some extent, but that citizens have no power to insure that their voices are heeded. Consultations where the views are elicited, but not acted upon can lead to a break-down in the trust between the authority and the resident and lead to consultation fatigue and a discrediting of the process (Prince & Puffitt, 2001).

To counter this risk of empty consultations and non-participation, this functionality seeks to support a two way, and continuing conversation, that is that the authority poses an open question, or set of options, the resident responds, the authority then provides a follow-up on how responses received influenced the decision and how they responded to the process. This is often badged as “you said – we did”. Consultation that is meaningful can support local democracy, and provide a partnership (Arnstein, 1969) between residents, their representatives and the Officers of the local authority.

4.4.3 Online Petition System

Petitions are a well-known and well used way for residents to formally engage with

institutions of authority, whether it is central government or their local authority, and to raise an issue to councillors. The practice and right to petition the state can be traced to Saxon times, and the right established under the Magna Carta of 1406 (House of Commons Information Office, 2010) as a way of peacefully mobilising and demonstrating popular opinion. Traditionally petitions involve the gathering of paper signatures. The e-petition allows this process to be replicated, and to harness social media to raise the profile of the issue. Local authorities have been required to host e-petition schemes since 2010 (Ellison & Hardey, 2013).

The strength of the petition process is underscored by its position as an accepted participatory aspect of an electorally dominated representative system. The inclusion of participatory mechanisms with the system of elected representatives offers the potential of reducing the estrangement from the administration of power that is inherent in the representative model (Shane, 2004; Held, 1995), as well as bolstering the understanding and identified value in civic society. The petition is a one directional, non-reciprocal activity (Ellison & Hardey, 2013). There are, of course no guarantees with petitions that those signing are in any way knowledgeable as to the subject, or that they have considered any alternative courses of action to those being promoted in the petition. This risk is as prevalent for the petition hawked in the shopping centre as it is for petition hosted on Change.org.uk, indeed it may be said that the paper petition thrust at shoppers has a far lower chance of the signatory being familiar with the details of the issue being addressed than one where the signatory has instant access to the facts and opinions published on the Internet, and is not under an immediate pressure to

sign. Jungherr and Jürgens (2010) research on e-petitions in Germany demonstrated the level of cross signing, that signatories to one-petition have a tendency to sign other petitions on a single occasion.

The question may be asked as to what makes a legitimate petition, how many signatures are needed for an issue to be taken seriously. Responses may be tiered, where the gathering of an additional signature entitles that petition to a greater hearing, or to a debate in Council. The assumption being that with each additional signature the importance of the issue grows. Cut-off points for the consideration of a petition are not, or should not be thought of as hard and fast rules. The context of the issue must also be considered when judging the public mood surrounding the petition. The assessment and inclusivity of the petitioning process will determine whether the process is tokenistic or represents a real example of citizen power-sharing (Arnstein, 1969). This can be judged by the tariff of signatures that is imposed for the consideration of a petition. For example the national e-petition scheme identifies that 100,000 signatures are needed for the matter to be considered for debate in the House of Commons (House of Commons, 2015), a figure of approximately 0.2%⁶ of the national electorate, while in the borough of Windsor and Maidenhead, 1000 signatures are needed to trigger a council debate, approximately, approximately 1% of the electorate⁷. For Surrey County Council the figure is 20,000 or 2.3%⁸ of the electorate. This disparity over the proportionate volume of signatures needed suggests variation in the value

⁶ The total number of UK parliamentary electors in 2013 was 46,139,900 (Office of National Statistics, 2013)

⁷ Total Electorate in Maidenhead and Windsor 2013 106,463 (Office of National Statistics, 2013)

⁸ Total Electorate for Surrey 866,795 (Office of National Statistics, 2013)

placed upon local participation. The nature of the tariff in place in, for example Surrey County Council, militates against the discussion of very local issues. Issues affecting only one village or town are unlikely to be able to reach the tariff of 20,000 signatures, meaning that only major, county wide issues will be debated. While petitions have an important and established place in our democracy, they do not represent or exploit the potential of many-to-many communication offered by Gov2.0 (Ellison & Hardey, 2013).

4.4.4 Co-design of services

The process of co-designing services refers to the opening up of opportunities for citizens, and residents to be involved in the development of a new policy initiative (Kannan & Chang, 2013). The co-design of services with residents, as distinct from the co-design with any other stakeholder, relies upon creating widely accessible channels through which the public can participate. Co-design focuses upon opening what may be portrayed as a closed and insular process that is controlled by the two pillars of the local government establishment; ideas being developed by employed professionals and overseen by elected members. Within this traditional approach, public involvement in the process is formalised through official consultation exercises.

The development of policy co-design may be seen within the context of the devolution of power from the formal centre to the resident, as such considered as a step into Partnership and Devolved Power (Arnstein, 1969). Esterink &

Monnikhof (2003) identified that there was a shift towards greater participation in policy planning and design in the field of land use planning, it was identified that the motivations for the engagement of residents in a participatory process for the local authority was threefold, these being increasing involvement for democratic reasons; to build support for possibly contentious policies and to improve the effectiveness and quality of policy proposals. Twelve years on these motivations and manipulations (Arnstein, 1969) are still valid.

Traditionally the development of policy has been an arena reserved for the professional (officer and member) with the residents' role limited to the electoral cycle (Miller & Fox, 2007) and making choices between the policy proposals of the candidates and their parties once every 4 years. The concept of the expert citizen, who is able to be engaged on a qualitative basis, that is their opinions explored in a detailed and qualitative manner, rather than just counted quantitatively is a pre-requisite for the co-design of services and resident involvement in the policy creation process (Bason, 2013).

Opening the door to a wider definition of expertise, in order to recognise the lived experience and naïve knowledge (Foucault, 1980) of citizens as valid alongside the professional knowledge of council officers is akin to an expansion of the role of the elected representative, who is not an expert, although many build up considerable expertise over long years of service, but is a respected figure in the policy making system. Extending this to recognise a broad definition of expertise from lived experience, and to therefore benefit from the wisdom of the crowd is not

a significant leap. The technology to support this is available and well used in the wider community. Views may be harnessed from social media outlets such as Twitter or Facebook that allow unfettered conversations in which the authority can be a voice, direct chat services such as ZipChat allow the hosting of specific conversations to be held, while wikis allow multiple writing and editing by a broad public. This is in addition to the panoply of survey tools that can be used to capture more general trends and supporting information.

4.4.5 Co-decision around services (public decision making)

Co-decision refers to the practice of sharing, and delegating the decision making responsibilities from elected and employed officials directly to the public. Within the scale of participative practice, the delegation of decision making to the public may be considered to be at the furthest reach. This approach is identified by Noveck (2009) as a form of collaborative democracy, building upon the idea that there is intellectual strength and depth within the wider community that may be harnessed for improved decision making (Surowiecki, 2011; Noveck, 2009).

Co-decision is the apex of the participative ladder laid-out by Arnstein (1969). Co-decision rests between the rungs of partnership and delegated power, where the balance lies is a decision that rests with the sponsoring authority. Transparent co-decision is a widely discussed aim of the Gov2.0/Open Government movement, and the broadening of democratic practice. Surowiecki (2011) outlines the case for decision making by the many, rather than the few, and the benefits of diversity for

improved quality of decision making. A case in point for this is provided by Noveck (2009) in the use of transparent collaborative decision making in the US Patent Office. The process of opening the door to co-decision on a wide body of people is considered a significant challenge by many. Many public servants hold a fear that sharing the control that decision making provides leads to poorer quality decisions (Enserink & Monnikhof, 2003) and an undermining of representative democratic legitimacy.

4.5 Platform Provision

4.5.1 Co-production of services and hosting applications developed to deliver services

The development of open-access and open data models in government at all tiers is leading to the creation of a new type of public good (Cabinet Office, 2014); a service that is non-rival and non-exclusive. The development of public data as a public good can be seen as an invitation for interaction between the publisher and third parties. This interaction can include feedback on the data that is published, contributions to an understanding of the data and finally the development of new services using those data. As government works to encourage the development of new services built upon its source data, it moves to become a platform provider. New services co-produced with residents and third party provider offer a way for government to enlarge the pool of services it supports, and thus offers to the public, in a highly cost effective manner a range of additional provision that would

otherwise not be available.

Co-production and indeed co-delivery of services beyond the use of social media may be described as the ultimate expression of resident engagement with local authorities (Kannan & Chang, 2013). Services directly delivered by residents, or delivered alongside residents need not be limited to the physical world; indeed the web opens a number of potential avenues for this level of engagement with residents. The provision of data to developers (amateur and professional) opens the potential for citizen developed Internet resources that serve the whole community. The use of technology to deliver services and changes working alongside citizens is exemplified by Kent County Council's use of the website www.transformedbyyou.com.

The development of platform provision requires strong physical infrastructure in terms of access to the data, O'Reilly (2011) described his ideal of platform provision as "*an incredible revolution*" which he sees delivering more services, with more ingenuity and without any formal government procurement activity (Cabinet Office, 2014). This approach is being followed by central government through services such as the applications available on the data.gov.uk service, and by some local authorities such as Kent County Council in the Kent Connects service.

4.5.2 Open data mash-ups and sponsored hack days

Bringing together data collected from different sources and originally collected for

different purposes, linking it and delivering analysis and new service provision is the aim of the data mash-up. Events, known as hack days, or hackathons (Johnson & Robinson, 2014) where the authority encourages this behaviour and sets a challenge to the development community to see what they can do may be hosted. This approach has been popular in the USA, and has spread to the UK with a number of events being held in conjunction with local authorities by groups such as FutureGov, LocalGovDigital and LocalGovCamp.

The collection and analysis of massive volumes of data is something that has only recently become possible, due to advances in data collection, storage database technologies and computing power. Big data can be defined by three distinguishing features; the variety of data that can be, and are collected, the volume of those data which is calculated in Zettabytes⁹, and the velocity with which data can be captured, recorded and made available (Zikopoulos, et al., 2012). The utilisation of this resource represents one of the most significant, but exciting challenges faced by local government.

The DCLG sponsored Lambeth in Numbers (London Borough of Lambeth and Boilerhouse Media Ltd, 2012) as a demonstration project that brings together local authority and health derived data pertinent to the Lambeth Food Strategy and allows users to map data as a single instance or as comparative instances, as well as to submit their own data in a crowd-sourced manner. This type of data mash-up can allow users to explore data and information and to derive new evidence for

⁹ 1 zettabyte = 1000^7 bytes, or 1,000,000,000 terabytes

themselves.

The aims of these so-called civic hacks is to generate, from a diverse base of individuals, new conceptions of services and through new ways of understanding the data to generate an understanding of the dynamics of communities. That big data is able to generate new levels of understanding is not in doubt. Work by companies such as Mastodon C looking at the cost of NHS prescriptions, which claims to have uncovered savings of c.£200 million on the prescription of statins which are a class of pharmaceutical used to preventatively treat cardiovascular problems, have demonstrated that analysing very large data sets can bring dramatic results. The power and commercial value of big data is something that a number of major computing companies, such as IBM, are seeking to harness for profit (Townsend, 2013), by generating the volume, variety and velocity of data (Zikopoulos, et al., 2012) that is made available.

While big data analysis using tools such as unstructured data analytics can develop important new understandings, considerations have to be given to a number of areas of potential concern. These areas of concern can be considered as concerns of privacy and control. These areas of concern were highlighted to the author while employed at the London Borough of Hackney, and in formal and informal conversations with officers in a number other authorities. To take the concern with privacy, the danger exists that as more datasets are brought together, even anonymous ones, so the risk of identification for the individual grows. If data sets showing anonymised data relating to income, disability,

ethnicity and postcode are combined it may be possible to identify the only blind, black person in the street and find out their income, clearly a breach of their privacy. While some procedural steps, such as the use of synthesised data; pseudonymised data; or data that has been subject to statistical processes such as barnardization¹⁰ (the process of altering the detail of individual data within a set of results to disguise its true value, while retaining the absolute value and totals) can render the data suitably anonymised (Hon, et al., 2011), the risk of de-anonymising data is a very real and comes with sanctions for breaching the Data Protection Act. Authorities are, therefore rightly worried about the potential for this type of personal identification arising from data that they have placed into the public sphere.

The second identified area of concern is that of control and ownership. Not all data that is potentially useful resides with a single authority, for example, in a pilot project¹¹ seeking to investigate the potential for big data analysis in a particular housing estate in Hackney, the local authority needed to work with the Metropolitan Police, NHS Clinical Commissioning Group, the Housing Association who own and manages the estate as well as internal data owners. This level of partnership brings forth questions regarding who controls the combined dataset, who is responsible for it? Who controls, if they can, what the data will be used for? As well as many of the other 'normal' issues of partnership working. Open data adds a further level of complexity to partnership working, uncertainty regarding the

¹⁰ Full details of the recommended processes of data anonymisation are provided by the Information Commissioners Office. www.ICO.org.uk

¹¹ For details of Project Stentor, see www.gtr.rcuk.ac.uk

technology and the use that the data will be put to and concern that the story that the data is made to tell in public is either unflattering or misleading.

4.6 Conclusions

The practice and adoption of Gov2.0 is fundamentally the harnessing of an existing, and proven technology to develop enhanced bilateral relationships between government and citizen, enabling government to be held accountable by the citizen and citizen participation in governance. Accountability stems from providing citizens with tools to allow them to ask informed questions and to influence the decisions. Citizen participation is an invitation for residents to not remain as passive bystanders in the process of government, but to be an active part of the governance network (Klijn & Skelcher, 2007).

The functionality that has been described and discussed in this chapter offers the potential of enhancing the opportunities for critical democratic engagement with local authorities on the one hand, and on the other for authorities to work constructively in partnership with residents, providing delegated power to allow decision making to be shared between the representatives of the people, and the people themselves, each being a check and balance to the power of the other (Shane, 2004; Arnstein, 1969). This functionality also offers the government the ability to tap into the long-tail of popular expertise, to grow and develop new services in conjunction with those who will use them at a low cost, without the limitations of formal procurement (Cabinet Office, 2014).

This functionality described in the literature sets out to deliver a combination of democratic and administrative improvement, which is underpinned by two assumptions. Firstly that the democratic and administrative processes in use require bolstering and secondly, that the models of the technology sector are the ones to follow. In this, Gov2.0 and the open data movement are much like the New Public Management movement, which sought to apply a prescriptive model to the sector. The challenge to this is that the nature of the Web2.0 approach is, at its heart, against the application of a normalized one-size fits all model, and rather places the emphasis for solution design into a continually evolving “perpetual beta” (Song, 2010), that changes to reflect the needs of the community it serves. To this end, development should be as locally distinctive as local government has always been, and the focus rests upon the needs of the citizen rather than the administrative convenience of the administration (Farmer, 2005).

The literature supporting Gov2.0 is explicit in its calls for a new type of citizen centric administration, one that does not follow the path of a separation between citizen and authority aside from occasional public consultation, rather where service design is accessible and inclusive, and where transparent information freely available provides the tools for holding the authority to account and allows residents to develop new services based on published data. The next chapter focuses on the methods that allow an investigation of the nature of the adoption of Gov2.0. In order to understand the nature of any adoption, this investigation will focus upon two distinct, but related facets. Firstly, the specific use of functionality

in a co-ordinated and deliberate manner by local authorities and secondly how the notion of Gov2.0 is understood by those responsible for any implementation.

The preceding three chapters have explored the literature that surrounds and defines Gov2.0, and the functionality that may be presented to the public to deliver it. These chapters, when taken together, present a comprehensive picture of the postmodern nature of Gov2.0 and define the composition and potential deliverable functionality of Gov2.0 and present a typology of adoption.

The next chapter focuses on the methods that allow an investigation of the nature of the adoption of Gov2.0. In order to understand the nature of any adoption, this investigation will focus upon two distinct, but related facets. Firstly, the specific use of functionality in a co-ordinated and deliberate manner by local authorities and secondly how the notion of Gov2.0 is understood by those responsible for any implementation.

CHAPTER FIVE: EPISTEMOLOGY, METHODOLOGY AND METHODS

5.1 Introduction

This thesis investigates the central research question of in what way do local councils make use of second generation Internet technologies. To develop a comprehensive response to this question, it is necessary to understand the levels of provision that exist and how these are experienced by users. Web2.0 activities can only be seen to exist in their published state. A gap in the literature exists, in that while research into the adoption of social media has been undertaken (see for example Ellison and Hardey (2013 & 2013), Dutton, Blank and Groselj (2013) as well as studies from outside the UK including such as that by Bonsón et al. (2012), the utilisation of Gov2.0 services have not been explored or recorded. Secondly the investigation will review practitioners' perceptions and subjective understanding of the subject to illuminate the reasons for decisions on the provision of Gov2.0 services. The provision of Gov2.0 services is not a default position, and may be seen as a disruption to the prevailing institutional norms, and nature of the relationships between the institution and those it serves. This investigation will, therefore need to understand how Gov2.0 is understood by practitioners responsible for its implementation either as influencers or decision takers.

This chapter establishes the approach used in the research conducted, detailing

how the understanding of the subject matter informed the research design and the application of the selected research methods and methodologies. The two methods applied are content analysis and Q-methodology. These two methods combine to provide the evidence to generate an understanding of the practice and the perceptions of Gov2.0 in English local government.

5.2 Epistemology

The predominance in local government of the scientific, positivist, paradigm can be seen in the development and ubiquitous adoption of New Public Management (NPM). NPM is defined by its positivism enacted as a continual focus on the measurement of specific performance, results and outcomes (Miller & Fox, 2007), and continual search for perfection. As an epistemological position, positivism favours the concept of a definable and discoverable truth. A position that can be traced to the age of enlightenment and which has informed the development of modernism, with its associated idea of a legitimate singular knowledge (Lyotard, 2004). Positivist knowledge is epitomised by Newton's First Law, which states that *"Every body (sic) persists in its state of being at rest or of moving uniformly straight forward, except insofar as it is compelled to change its state by force impressed"* (Chia, 1997, p. 690). Newton identifies that cause has an absolute effect, and that without the cause there can be no effect. That laws of science can be applied to the "real" world of objects and physical forces is without question, however whether the same can be said of the constructed world of individuals and their subjective perceptions is a matter of far greater debate (Ramlo & Newman, 2011). Positivism presents the idea of the dualism of the problem – if a then b; which by

the same logical tone gives us the duality of right/wrong; self/other (Chia, 1997) or as applied to politics, right/left. This dualism is inherently speaking of a singular truth, a common way that if found is considered to be “correct” and which forms Lyotard's grand narrative of modernity. The work of Karl Popper and the post-positivist movement was to state that scientific knowledge is only the temporary position of understanding, and that all that is known may be changed in the light of empirical evidence, it retains the concept that, at least temporarily there can be a singular agreed truth (Scotland, 2012).

This positivist view is challenged by the acceptance of relativism and the role of human agency in the construction of knowledge that is introduced by the interpretative paradigm (Scotland, 2012). Interpretivist epistemology privileges the multiple and relative truths that exist in a complex, socially constructed world, filtered by assumptions, expectations and vocabularies (Alvesson, 2002). Miller and Fox (2007) present an approach that acknowledges that political and administrative realities and decisions are socially constructed. The political and administrative actors respond to, and create meaning in their environments as a result of the stories they tell and the symbols that they choose to represent their actions (Miller & Fox, 2007; Burnier, 2005). These discourses are the foundation materials for the creation of frames of reference which form the analytical construct. Frames of reference are described by Schön and Rein (1994, p.23) as being “...*underlying structures of belief, perception and appreciation...*”. As individuals construct their own individual frames, the nature of the subject is again rooted in the postmodern.

That Web2.0 and its public administrative sibling Gov2.0 are firmly rooted in the postmodern, or non-traditional, provides a springboard for the epistemological standpoint from which to observe them. The interpretivist approach, which recognises the socially constructed nature of reality, enables an understanding and investigation of the multiple truths and competing claims within the subject. Viewed through the telescope of the modern, positivist paradigm the world of Gov2.0 is a jumble of disconnected difference; however viewed through the interpretivist or post traditional lens, the individual constructions and subjective understanding of the phenomena in question come to the fore, what was a disconnectedness can be seen to be a series of shared and individual constructions of the truth. In explaining the interpretivist paradigm, James Scotland (2012) uses Crotty's example of the tree. That "*a tree is not a tree unless someone calls it a tree. Meaning is not discovered; it is constructed...*" (2012, p. 11). Our associations of trees as strong, beautiful, useful, valuable and so forth are shared constructions (Scotland, 2012; Schön & Rein, 1994). Without our construction of what constitutes a tree, it would not exist as a sentiment, only as a physical object devoid of further meaning. The acceptance of multiple truths and the abandonment of the meta-narrative is at the heart of Web2.0 and therefore of Gov2.0.

5.3 Outline Research Design

To answer the research questions identified at the start of this study, it is

necessary to understand three elements of the subject at hand, as outlined in figure 5.1 below. The nature of the policy subject itself, which is established in the literature review contained in the opening chapters. Secondly the practice or the implementation of the policy and finally the understanding of the policy held by those who are charged with or are seeking to implement it. The policy object is the application and use of Gov2.0. Following this approach, the investigation of the study will focus upon developing an understanding of the practice of Gov2.0 and will investigate the perceptions and understandings of the object held by those who are responsible for its practice.

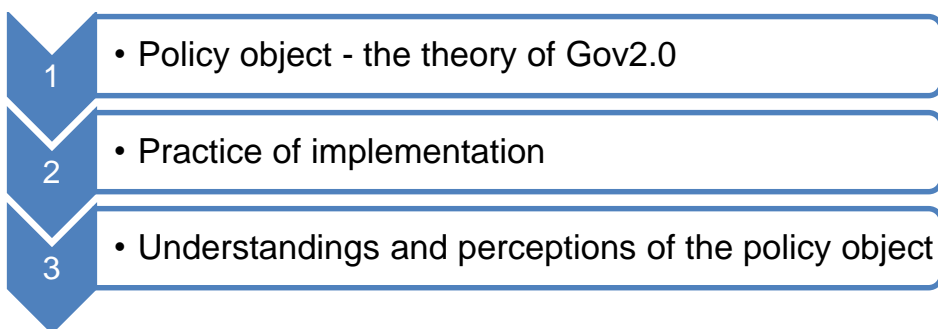


Figure 5.1- High level research design

The literature review undertaken has identified that definitions and understandings of Gov2.0 are contested, with the literature containing a number of master frames. Policy proposals such as Gov2.0 are constructions that are assembled from diverse ideas by the members of the organisation as discourses used to frame and advance potential policy solutions (Schmidt, 2008; Benford & Snow, 2000; Schön & Rein, 1994). The concept of framing, which draws upon the combination of tacit and explicit knowledge to allow the individual to develop world-views, or frames of

reference, against which new knowledge and experiences can be judged (Schön & Rein, 1994; Greenwood, 1993; Goffman 1974) is used as an analytical construct. The process of framing then allows the individual to develop and articulate structures of perception and understanding for constructing the world as it exists and is encountered (Roelofsen, et al., 2010; Van Gorp, 2007).

5.4 Position of the author as researcher

The position of the author is not, and cannot be one of a disinterested neutral. Alvesson (2002) observes that there are no truly objective observations, only observations that are socially situated within the experiences of the observed and the observer. The author was, until October 2014, a local government officer working in the delivery of IT technology in a London Borough Council. The author is, therefore in the position of having a professional interest and understanding of the issues related to the research question. It is noted, however that there exists in this a danger of researcher bias and of limited perspectives influencing the conduct, and analysis of the study. The author has worked in four English local authorities for over thirteen years, in a variety of positions. Over this time the author has built up a wealth of practical knowledge of the operation of local authorities, their structure and the approach that is followed in the delivery of services. The author has, therefore developed biases and subjective opinions as a result of this which may impact upon the conduct of the study. It would be a mistake to assume that the author should, in the scientific-positivist sense stand as an objective outsider (Alvesson, 2002). It is asserted that is neither possible, nor

desirable. The decisions taken by the author in the design of the research influence and shape the research. As a socially constructed being, decisions to include or omit aspects of the literature or the emphasis placed on a particular finding are all influenced by the author's own history and experiences.

The approach to the study is not that of work based research, and no single organisation with which the author has had an employment relationship has been focused upon during the research. The author is simply part of the wider professional community which is subject to the investigation. To ensure that the author's perspectives are not limited, interviews were held with officers from other authorities with the intention of allowing the author to discuss the subject of the research with a range of officers and members. These interviews provided a range of interpretations of the topic that challenged the author's preconceived notions, and enhancement of the understanding of the subject and the perspectives held.

5.5 The analytical construct - frame analysis

The concept of frame analysis, and framing theory is a common feature of the social sciences (Benford & Snow, 2000; Entman, 1993), and in particular has a history of being used by scholars investigating communications (Van Gorp, 2007; Entman, 1993), policy research (Triandafyllidou & Foutiou, 1998; Schön & Rein, 1994), social movements (Benford & Snow, 2000), technological advances (Roelofsen, et al., 2010) and by sociologists (Goffman, 1974). While the concept is familiar, because of its widespread use, definitions can become confused, and

imprecise, a point argued by Entman (1993).

Goffman's 1974 book, *Frame Analysis* established the coherent understanding of perceived meanings, with the frame referring to the relationship of meanings that are found and which drive the consideration of ideas and the construction of understanding, the process of making sense of the world in which we find ourselves.

“When participant roles in an activity are differentiated - a common circumstance - the view that one person has of what is going on is likely to be quite different from that of another. There is a sense in which what is play for the golfer is work for the caddy” (Goffman, 1974, p. 8).

Goffman (1974) goes on to say that to understand frames is to isolate the basic frameworks of understanding and for making sense of events. This definition is built upon by Schön and Rein (1994), who identified the role framing has in the individual construction of understanding. The selection of salient information that fits with the world view leads to the development of different understandings of issues (Schön & Rein, 1994). It is this process of generating conflicting interpretations of policies such as urban renewal (improvement or gentrification); of the natural world (exploitation of resources or destruction of habitat) that can be seen to be at the heart of the development of the political debate. As Schön and Rein identify, controversy is central to policy making, this controversy is, in its essence, conflict between frames.

This process of the application of meaning is described by Goffman (1974) as being the application of primary frameworks to information, allowing it to be classified, and to apply a test of relational salience to new information. In short it is a process of asking *how does what I am now being told relate to my existing worldview and past experiences*. This notion of primary frameworks is built upon by Benford and Snow (2000), in their discussion of master frames as being the subconscious algorithms that inform and constrain individual orientations. Given the centrality of the individual's frame to their construction of themselves within a wider world; and their construction of the reality of the world (Burr, 2007; Berger & Luckman, 1991), a frame conflict as described by Schön and Rein may be considered to be very personal, and strongly felt.

Frames of reference provide a route to understanding the nature of policy conflict and dispute. Goffman's notion is of primary frameworks that drive the understanding of the world at the macro level, however it is at the level of human detail that frames provide a further level of understanding. We know that policy is not in a continuous state of flux and conflict. Agreement can be reached, and practitioners can, and do make compromises. Given that conflicting frames appear to preclude the possibilities of policy compromise, how does this occur in the real world? Schön and Rein (1994) argue that this is the product of rationality among policy makers, and the ability of those engaged to reframe or revise their frames of reference in the light of evidence presented. Schön and Rein present the case of the transitions in Eastern Europe, and the adaptations made by both the public and

some established politicians in the mid 1990's as evidence of the impact that reframing can have. Entman draws upon the "cold war mentality" of the USA during the period from the end of World War Two until the mid 1990's. This frame dominated the way in which the USA reacted to and identified world events categorising them as acts of aggression, or battles for freedom (Entman 1993), by their relationship to the USSR's perceived objectives. A frame that was, at least temporarily revised with the fall of the Iron Curtain.

Fundamental to this is the question of whether the best way to achieve agreement, if indeed agreement is possible, is the position of consensus. Foucault would suggest that this through managed conflict, and that with a healthy civil society being distrustful and critical, conflict is inevitable and omnipresent (Flyvbjerg, 1998). Lyotard suggests that consensus is "*only a particular state of discussion, not its end*" (Lyotard, 2004; Rorty, 1984). Schön and Rein draw upon Habermas, in addition to Kuhn to discuss the idealized route to consensus. However, turning again to the notion of paralogy as an on-going quest for meaning and as such the propagation of creativity, Lyotard argues that where consensus leads to stagnation of ideas; paralogy allows a creative flow and replacement of the Kantian ideal of unity with diversity and choice (Brüger, 2001; Fairfield, 1994).

5.6 Outline of the methods

This study addresses the objectives of developing an understanding of the practices and the perceptions of Gov2.0. Evidence of the practice can be

assessed by the simple expedient of witnessing action. The practice that this study is seeking evidence for is a public demonstration and delivery of functionality. The understanding of practitioners' perceptions, however, requires a way to understand the subjective, the individual preference and personal framing that drives understanding.

Web content analysis is selected as the preferred method for addressing the first research question into the nature of practice, as it offers a scientific, reliable and established method for the analysis of internet content. This method has been used successfully in numerous studies in areas as diverse as the communication of sustainability in American universities (Dade & Hassenzahl, 2013), campus resources for women's specific issues including sexual assault (Hayes-Smith & Hayes-Smith, 2009) and an analysis of the content of European airport websites where the method demonstrated the difference between the web presence (Halpern & Regmi, 2013) of privately owned and publically owned airports, and the relationship between the size of the airport's website (number of pages) and the level of use of the Internet in that country. Within the studies, a common methodology was followed which involved searching using the Google Chrome search engine and the coding of results to reveal the patterns in the use of the technology.

Content analysis itself is a well-known and well established technique in the social sciences, particularly within the field of communications research (Kim & Kuljis, 2010; Krippendorff, 1989). Kim & Kuljis (2010) present a set of noted concerns

regarding the use of content analysis for web based documentary evidence. These refer to criticisms of content analysis itself, as well as particular concerns relating to the use of the method in the setting of Internet sourced data. They identify that due to the focus by content analysis on what is measurable, rather than what is theoretically significant, the method may be considered to be lacking in theoretical substance. The identification of content is of utmost importance in the conduct of the analysis, if the researcher is seeking to develop a comprehensive picture of the communications surrounding a given topic; then the evidence base must be selected to be fully representative of the subject. The quality of the analysis is only as strong as the evidential inputs. If the sample is biased or incomplete, the analytical picture will also be. A measure of all research validity is its replicability. With printed materials, this process is simple as the material is in a fixed state, while the information published on the Internet is in a state of continual flux. The nature of the Internet is such that the content is ever changing, thus the content that was reviewed may not be, indeed should not be the same that could be viewed on the same websites by the reader of this thesis today, and will be again different if revisited in the future (Kim & Kuljis, 2010).

The study of subjectivity and of individual understandings, and self-referential constructions of the world encountered can be undertaken as scientific endeavour (Watts & Stenner, 2012; Stephenson, 1993; McKeown & Thomas, 1988). Subjectivity cannot be measured with a tape measure nor with a test-tube, rather it requires unlocking and interpretation, this thesis suggests that the development of Gov2.0 is individual and local, responding to the needs and articulated desires

locally, not just to a national order (Paterson & Higgs, 2005), and consequently is more suited to interpretation, than to a natural science based exploration. The robustness of the methods employed is not to be found in their replicability, for the nature of the study into the interpretations of the subjective is inherently not replicable, as the act of the study will change the results with the same participants; and different participants bring forward alternative and unconsidered results; rather robustness lies in the visibility of the methods used and interpretations entered into (Costley, et al., 2011). Any investigation of subjectivity must recognise that subjectivity is the individual's reaction to their life experiences and the stimuli that they have encountered to date (Berger & Luckman, 1991), and is explored through the individual viewpoints and narratives that they articulate. The subjective viewpoints that are identified by those who participated in the study are influenced simultaneously by their 'expert' knowledge and by their lived experiences up to the point of the study. That is to say that subjectivity is the essence of selfhood, and drives the individual narratives that define the individuals' dealings and interpretations of events that they encounter (Burr, 2007). It is the individual constructions of the role of the expert that will influence and drive the response to the study, and the same individual constructions and personal narratives that will drive their understanding and opinion of Gov2.0. Understanding these constructions is dependent upon understanding the interpretative narratives that individuals use to navigate the topic. The use of Q-method will enable this subjectivity to be understood, and their interpretations of components of Gov2.0 to be exposed, and therefore the nature of the Gov2.0 itself better explored. The only way of understanding a human construction such as Gov2.0 is to understand the

constructors themselves.

5.7 Website content Analysis

5.7.1 Research methodology & design

Understanding the nature of Internet based practice is of central importance to understanding the practical reality of Gov2.0. A web based phenomenon cannot be accurately studied in any other environment; in much the same way that anthropologists study behaviour within its naturally occurring setting. The notion of content analysis was introduced by Breleson (1952), who described the process as being *“a research technique for the objective, systematic and quantitative description of the manifest content of communication”* (Weber, 1990, pp. 9,10). Klaus Krippendorff, building upon this earlier work notes that content analysis is intended to highlight the communications from observable events within their published context (Krippendorff, 1989). The published context is the point at which Gov2.0 becomes a reality, as an aspect of the social web, it can only be said to exist as accessible content.

The method for conducting this incorporates not just the content itself, but its context within the website and the network of Internet linkages. Content analysis itself is a well establish technique within the social sciences (Herring, 2010) for investigating and assessing the presence of specific words and concepts within texts (Jose & Lee, 2007). The approach followed by Ellison and Hardey (2013),

was to conduct searches in the widespread, and commonplace manner of an Internet search, by identifying the site home page through a search engine and navigating within the site to generate an accurate picture of the functionality that is available on the site, within its context. This context includes an analysis of the connectivity, the number of links to the site from outside bodies. This research draws out a rich picture of the functionality provided, recognising the limitation of this research, that an understanding of the implementation and adoption of Gov2.0, cannot provide an understanding of the aims of the council, only the approach that they have followed.

The process for content analysis as applied to Internet based content is reviewed by Kim and Kuljis (2010), who, building on work by Neuendorf (2002) identify nine stages in the process of the analysis. This outlines the process that has been followed in the completion of this study. Within this application of the method, as only the author was responsible for the coding and recording in its entirety the processes for coder training and inter-coder reliability assessments have been omitted. As such the method followed eight of the nine identified steps, shown in figure 5.2 below.

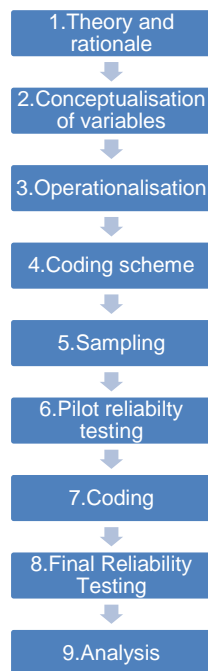


Figure 5.2: Kim and Kuljis (2010) model of content analysis.

5.7.2 Theory and rationale

This method has been identified as the preferred way to develop an understanding of the practice of Gov2.0, as the subject of the enquiry is in essence a communicative act. Gov2.0 cannot be said to exist without the publication of website content that invites and facilitates the communication and dialogue between the authority and the resident.

The use of web content analysis is drawn from the notion of content analysis as defined by Stemler (2001) drawing on Holsti (1969) being a “*systematic and replicable technique*” that is not restricted to the domain of textual analysis, but which may include visual or aural evidence, that is valuable for gaining insight into “*complex social and communicational trends and patterns*” (Kim & Kuljis, 2010, p.

369). This definition therefore encompasses the content of websites. This is at heart a naturalistic form of enquiry, with the evidence, in this case public documents intended for mass readership, retained in their context. Indeed their context forms part of the evidence base. Content analysis, including the analysis of the content of websites, is a method that requires the drawing of inferences, and logically informed analysis from the content and context of a communication to deliver meaning about directly unobservable events. Communications theory suggests that messages, their content and their symbols reveal some of the properties of their producers, and have impacts upon their receivers (Krippendorf, 1989).

In order to provide evidence to support a response to the first research question, the extent to which Gov2.0 is an observable aspect of local authority practice, the method will provide evidence to answer this by accurately and reliably recording and categorising the activity which is visible. Content analysis allows the identification of meaning to be derived by the researcher from the presence of the categorised aspect, whether it be linguistic, pictorial (Weber, 1990) or as in this case functionality.

5.7.3 Identifying the variables

The variables identified in this study are the details and amount of functionality that each authority's website offers, how it seeks to engage with the public and provide functionality to the public. The identification of variables to be studied forms the

basis of the coding scheme detailed in appendices two and three. The individual variable elements are defined from the Gov2.0 literature, as shown in table 4.1. The identified variables are split between the three identified domains drawn from the model of Gov2.0 presented in chapter three, one of which, transparency, contains the specific areas of data that the Government is expecting local authorities to deliver.

5.7.4 Operationalisation: Defining categories and units of measurement – the coding scheme

The intention of the study is to review Gov2.0 in practice; the defining variables are measured across a four point scale, with each element of functionality in the coding scheme assessed following this scale, presented in appendix 2. The categories of investigation are defined by the model of Gov2.0 (figure 3.1) are its constituent domains. The analysis of the delivery of individual elements of the functionality explored in chapter four provides the evidence for the content analysis. Units of measurement are defined in the coding scheme, and serve to allow the comparison of individual authorities choices around the functionality to provide to the public.

5.7.5 Defining the coding scheme

The detail of the coding scheme is outlined in appendices 2 and 3 below, developed following the practice literature, and is divided into three domains of

practice following the theoretical model previously discussed. This allows the model to be tested against the reality of practice.

5.7.6 Sampling

The sample for this web content analysis was 50 English top tier local authority web sites, representing a sample of 30% of the English principal authorities. The web content approach is a review of the published documentary evidence available to the public during a given time period. This therefore represents a snapshot of the functionality available at a given point in time, in the same way that a company's balance sheet provides a description of their assets and liabilities on a given day, so this analysis presents the tools that are in use. Where no functionality was identified, or technical failings on the individual website prevented a particular tool being identified, this site was resurveyed during the sampling period, however on some occasions the error was persistent and the tool has therefore been recorded as being not present.

There are 152 top tier authorities in England, comprising Unitary Authorities, London Boroughs, Metropolitan Boroughs and traditional County Councils. The sample is stratified to represent the variety of types of authority, from London Borough to rural County Council. No attempt has been made to select the sample in a geographically specific manner. Authorities were identified by a system of numbering within their four organisational types, and the number then selected by an independent person from the given range for that organisational type. This

provided a stratified random sample. The stratification of authority types is detailed in table 5.1 below.

Authority Type	No. in Sample
County Council	12
London Borough	12
Metropolitan Borough	12
Unitary	14

Table 5.1: Sample stratification by local authority type

In selecting the authorities that would be subject to this review, consideration was given to the major survey that is conducted annually by the Local Government Society of IT Managers (Socitm), which seeks to rank authorities on their digital delivery. The survey, titled “*Better Connected*”, uses a similar web content analysis method, sampling all local authorities and publishing details of those who subscribe to the peer review service. The methodology adopted by Socitm was to review the ability to complete a set of “top tasks” such as viewing a planning application document (Society of Information Technology Management, 2014). The Socitm sample therefore provides a partial assessment of the digital capabilities of council websites. The methodology followed focuses on the user’s ability to complete an interaction with the authority via their website, with the reviewer acting as a member of the public. The 2007 analysis conducted by Olphert and

Damodaran demonstrated that local authority websites were not, at that time meeting residents expectations. Following the lead of Olphert and Damodaran (2007), Socitm adopted an approach of using typical user scenarios within their research method, to allow a definition of how well a given website met public information needs. Clearly this method is only as good as the description of the information need that is used. The 2014 sample included the publication of 209 identified authorities, including district councils. Each authority is awarded a star rating, ranging from one to a maximum of four stars. Following the selection of the authorities to be reviewed, a record was made of their “star” rating with Socitm, to allow a comparative analysis regarding their delivery of Gov2.0 functionality, the majority of which is not measured in the Socitm survey. The number of authorities in each category within this survey is detailed in table 5.2 below.

Table 5.2 Socitm star awards within the sample group

Star Rating	No. in Sample
Four	8
Three	16
Two	15
One	9
Zero/NA	2

5.7.7 Reliability

Reliability in content analysis is intended to assess the levels of agreement

between coders, where multiple individuals are undertaking the coding of the sample. This reliability between coders can be assessed using a number of agreement coefficients, such as Krippendorff's α , Scott's π and Bennett et al.'s S . (Krippendorff, 2004). In this study, the author was the only coder, therefore it was not deemed necessary to conduct reliability assessments. As such, there is no calculation of reliability in this study. This removes stage 7 from Neuendorf's recommended approach.

5.7.8 Coding

The qualitative understanding of the adoption of Gov2.0 is driven by the process of coding within the analysis. The coding structure is drawn from the theoretical anticipated behaviours. This is therefore an *a priori* coding structure, in contrast to a coding structure that is emergent from within the material being studied (Stemler, 2001). Following Jose and Lee, this study follows the established conceptual analysis methodology, which builds on predefined concepts whose presence are quantified and tallied in the chosen websites (Jose & Lee, 2007). In following this approach, the analysis must conform to the general principles of content analysis, in providing an "*objective, systematic and quantitative description of the content of [web] communication.*" (Baran 2002 quoted in Herring 2010 p.47). The central point here is that content analysis is a qualitative technique as it is applied here and will determine the existence, and frequency of use of the concepts of Gov2.0 across a set of local authority websites. By building upon the expanded paradigm outlined by Herring (2010), a full understanding can be generated which includes a

structural analysis of the website itself, with regard to the depth at which content resides (the number of pages which have to be navigated prior to locating the desired concept) and its relationship to the identified conceptual content.

5.7.9 Analysis

The data derived from the coding was analysed using two approaches. The first set of analysis undertaken was to investigate the data as stand-alone information. The analysis conducted is structured as an interpretation of the prevalence of specific functionality, within the predefined framework of Gov2.0. The functionality is interpreted against the defined scores matrix to allow a comparisons to be drawn between the different authorities. The numerical values allow mean levels of provision to be identified over each domain, and individual authorities that are demonstrating significant difference to the mean to be identified, and discussed.

5.8 Q-methodology

5.8.1 Research methodology & design

Q-methodology, which provides a way to scientifically study subjectivity, was pioneered by British physicist and psychologist William Stephenson in the 1950's (Steelman & Maguire 1999). Q-methodology is described by Ramlo and Newman (2011), controversially within the Q-methodology community, as a mixed methods approach drawing upon dimensions of both qualitative and quantitative research

methodologies. Q-methodology is concerned with the viabilities of personal constructions of individual and subjective reality, with many similarities to the postmodernist view of constructivism (Ramlo & Newman, 2011). Subjectivity is nothing more than the individual's communication of their point of view (Brewer, et al., 2000), and therefore a representation of their internal frame of reference. The method was selected to produce evidence to support the investigation of the second research question, concerning the nature of practitioners' understanding of Gov2.0. Q-methodology provides a systematic and scientific way to explore with the individual their self-referential understanding of an issue. The analysis of Q studies leads to the identification of shared subjectivity, among two or more participants, that are conceptualised as frames of reference, drawing upon the experience of Kroesen and Bröer (2009), Stephenson (1992) and Brown and Taylor (1973). These shared frames of reference are known in Q as factors (Watts & Stenner, 2012; McKeown & Thomas, 1988). For each factor, a factor array can be developed which provides a comprehensive view of the frame's shared subjectivity. The identified frames will provide an understanding of the forces at play in the negotiation of the final shape of the local response to the introduction of Gov2.0.

Q-methodology is premised upon the notion that individuals perceive and interpret the world differently, and therefore act upon these perceptions in different ways. The application of Q-methodology is communicative process, where the individual undertaking the process subjectively constructs and expresses their reality from the range of statements provided (Ramlo & Newman, 2011; Brown, 1980). Q-

methodology is concerned with the patterns of subjectivity across individuals, as opposed to the relationships between objective variables, thus the normal or R-method studies would look to correlations between specific provable variables such as education level, earnings and so forth. R-method studies are concerned primarily with objective measures, while Q studies are concerned with subjective data (Brown 2001 pp.3). Further details of the comparisons between Q and R are shown in table 5.3 below.

Table 5.3 Comparing Q and R Approaches (Robbins & Krueger, 2000)

	Q-method	R-Method
What is the aim of the research?	To enable a respondent to articulate a specific realm of his or her own subjectivity. To compare the subjective positions of whole individuals.	To query a representative sample of potential respondents as to their views on certain objective issues determined <i>a priori</i> by the researcher.
What questions are enabled	How are X and Y related in the opinion and subjectivity of an individual, where X and Y are claims drawn from the language and ideas of the individual?	What proportion of a population believes X, what proportion believes Y, where X and Y are predefined claims or concepts?

What is the purpose of collecting data?	To query the categories respondents use to understand their world. To compare them in a controlled fashion.	To query the state of opinion in and between populations.
Relationships among individuals or various traits?	Across traits for a whole individual (Stephenson's [1953] intrapersonal correlation).	Across individuals for each trait (interpersonal correlation).
How will the validity be determined?	Validation through iterative interpretation of the results with subjects.	Validation by correlating other objective information to the findings (e.g. triangulation).
What might the research discover?	Surprise in Q comes from evidence of the association of ideas in individuals in ways that the researcher had not previously theorized or imagined.	Surprise in R comes from evidence of proportions or populations of agreement or disagreement that the researcher had not previously theorized or imagined.

Subjectivity, the personal point of view upon which the individual's multiple realities are built is difficult to study in a systematic and thorough way (Yanow, 2000). Adoption of Q-method provides a method which encompasses a set of

psychometric and operational principles that when statistically analysed using factor analysis techniques provide a systematic and rigorous quantitative means for examining subjective opinions (McKeown & Thomas 1988).

5.8.2 The use of Q-method

Q-method relies on the ranking of statements (Q-sets), in a procedure known as the Q-sort. The completed Q-sort reflects the subjects' holistic view of the given topic (Brewer et al. 2000). The Q-sets therefore must be able to give a comprehensive and unbiased account of the topic area, the topic concourse. Q-method has been defined as a "*gestalt procedure*" (Watts & Stenner 2005 pp.70), in that it recognises that one cannot break-up the subject matter into a series of constituent themes. Q-methodology focuses upon the sharing of viewpoints by participants, rather than individual narratives, thus it is focused upon the agreed social constructions of individuals taken as a whole (Watts & Stenner, 2012; Burr, 2007). Looking at the totality of the individuals' viewpoint constructions, whilst not allowing the subject to broaden the concourse into a full discourse, allows a snapshot of viewpoints to be taken. Q-method will allow the researcher to examine the way in which themes or parts of the study concourse are connected, and disconnected within the individual social constructions.

In constructing the Q-set, McKeown and Thomas (1988) identify that naturalistic statements may be considered advantageous for the conduct of Q-method studies as the opinions contained within them are inherently recognisable to the

participants and they assist with the Q-sorting process (the ordering of the statements) The attribution of meaning within the statement is based on the participant, or their peers, own communications on the subject.

Q-methodology models the relative subjective importance of the viewpoints to subjects using the aforementioned Q-sort. The modelling is carried out by asking the subject to rank order a set of stimuli (the Q-set) in a specific manner, which may relate to the individual's preference, or their perception of another's. The analysis entails understanding the correlations of the individual Q-sorted items (N) as variables and conducting a factor analysis of the correlation matrix (NxN). The results of this analysis are the individuals' points of view, and the associations between individuals (and their individual traits, and thus constructed experiences). Finally, each statement is factor scored, where each Q-statement is scored against each of the factors. Factor scoring is used to understand and interpret the research in two ways; by constructing a factor array and secondly by reviewing the statement ranking of pairs, looking at the consensual and divergent ranking, and correlating this to individual traits (McKeown & Thomas, 1988).

5.8.3 Critiques of Q-methodology

As with all methodologies, Q is open to a number of criticisms. These criticisms must be understood within the scope of the study to understand whether they undermine the purpose of the research and nullify the results. The most basic criticism of Q-methodology is how a methodology which does not adhere to the

traditional 'rules' of statistical inference, , be accepted as valid. This criticism is in essence that it is not R-method. This criticism is addressed by Brown (1980) in that Q does not seek to adhere to the rules of R type approaches. Where R looks at objective and scorable traits on their own and uses these to identify differences between individuals, for example that person A has more of trait X than person B; Q looks to the subjective totality of the individual, so that person A *values* trait X more than they *value* trait Y.

As with all methods, concern is expressed regarding the introduction of researcher bias into the method, and therefore influencing the results either deliberately or accidentally. This point is made by Kampen and Tamás (2014) who note that within the established procedures for the conduct of a Q-methodology study there are six significant areas of concern. The first is the theory of Q, and the nature of subjectivity. Concerns are expressed regarding the researcher influence in setting the boundary of the concourse and its distillation into the Q-set. The identification of the participants (known in Q as the P-set) and indeed the conduct of the Q-sort itself are also open to the possibility of researcher influence. Kampen and Tamás also question the assertion in Q that the P-set need not be as large as those typically used in R-method studies, disputing the claim that a small and well-chosen population sample will provide sufficient variety to be able to identify the factors seen in a much larger group (Kampen & Tamas, 2014).

Brown et al. (2014) provides a set of rebuttals to the points raised by Kampen and Tamás, specifically identifying the reliability of Q-methodology and its components.

Brown et al. (2014) defend Stevenson's notion of subjectivity as accessible, individual behaviour, rather than something that is hidden and can only be indirectly analysed. The notion of truly objective social science research, described by Robbins & Krueger (2000, p.645) as "*naïve empirical objectivism*", can be questioned as any research can be called into doubt. Rather than identifying the researcher as an absent party, the focus may be on the honest acceptance of the presence of the researcher. By acknowledging the researcher as a part of the process, and opening this to scrutiny; rather than hiding the fact from the reader behind curtain of objectivity, the debate as to the role of the researcher can be held openly and the research subjected to honest scrutiny (Robbins & Krueger, 2000). It may be argued that in all research, including the natural sciences, the researcher has the opportunity to influence the findings of the research through the decisions made through the design of the research and through what is included and excluded, which is why Creswell (2003) argues that we must be clear regarding the role of the researcher.

Other significant criticisms of the method used focus around the nature and scope of the discourse, and therefore upon statement design; and the processes for the identification and decision making as to which statements are included and which are excluded. The mapped discourse should be recognisable in scale and depth to the participant. As noted by Robbins & Krueger (2000) the literature is largely silent on clear prescription for this activity, and on the most reliable method for the selection of statements from within the established discourse. In making this selection, the statement author will, in the choice of language used, be drawing

upon their individual understanding of the discourse and the discourses it contains. All discourses contain multiple discourses, for example foxhunting may be said to contain the discourses of 'foxhunting as pest control', 'foxhunting as a healthy outdoor sport', 'foxhunting as a pastime of the idle rich' or 'foxhunting as a source of employment'. Each discourse claims to be able to provide a truth as to the nature of the subject (Burr, 2007). What is otherwise absent and provided by Q-methodology is the individual's subjective and comparative understanding of these discourses.

These undertakings in Q-method are considered to be a combination of art as well as science. This acceptance of the art within the research process is reminiscent of David Farmer's (2005) call to include "play", by which he is meaning the application of a fresh and unencumbered consciousness. The challenge that can further be levelled is common to many methods which rely on human participation, that of participant frankness and honesty (Cross, 2005), a criticism labelled by Brown (1980), citing Edwards (1957), as the "*social desirability*" (p.196) variable, that the opinion provided is what is perceived to be the more socially acceptable response rather than the individual's true feelings. The response that Brown identifies is that rather than controlling for the effect statistically, the researcher should control for this through the conditions within which it manifests. Finally, meta studies conducted into the application of Q-methodology have identified an amount of variation and inconsistency in the application of the method, raising concerns regarding the consistency and stability (Dziopa & Ahern, 2011). This criticism may contain some truth, and is reflective of the development and growth

in the adoption of the method in recent years. An inconsistent approach by researchers does not discredit the method, rather the researchers who have misunderstood it. This criticism may also reflect the evolution of the method as it is applied to new topics and new situations. An example of this change in approach may be the use of web based technologies to engage with subjects, such as the approach used by Van Excel et al. (2015), Barrance (2015) and Jeffares (2014). Despite these criticisms, Q can be seen to provide a robust and replicable approach (Brown, 1980) for exploring and documenting subjective opinions (Cross, 2005).

5.9 The research process

The development of Q-methodology focuses around a fundamental re-imagining and inversion (Watts & Stenner, 2005) of the process of factor analysis and its application. Stevenson identified this difference by arguing that R-methodology referred to “*a selected population of ‘n’ individuals each of whom has been measured in ‘m’ tests*”, while Q-methodology to “*a population of ‘n’ tests, each of which are measured or scaled by ‘m’ individuals*” (Brown, 1980, p. 9). This difference being that in R-methodology the individual or is assessed against a set of criteria, for example, height, weight or voting intention; while in Q-methodology the set of stimuli (the Q-set drawn from the concourse) are assessed by the individual. This is in keeping with its background as a method for the study of behaviour, where more can be learned from the “*study of one subject for 1,000 hours than the study of 1,000 subjects for one hour*” (McKeown & Thomas, 1988,

p. 36). Indeed in psychology Q-method is applied to a single subject, with a variation in the instruction given to the participants, to induce a view by the participant and multiple frames of reference. However, this is not the application of the method applied on this occasion.

Q-methodology is accepted, though not widely used in the field of politics and public administration. A number of studies in fields examining democratic and governance discourses, including those by Jeffares and Skelcher (2010), Dryzek and Holmes (2002), Brewer, Coleman and Facer (2000) and Dryzek and Berijikian (1993) have been published. Q-methodology has also been used more widely in the study of subjectivity in studies published by Cross (2005) looking at attitudes in Health Education and Steelman and Maguire (1999) investigating perspectives on forestry management. The application of Q-methodology is driven by 5 key steps (Watts & Stenner, 2012; Ellingsen , et al., 2010; McKeown & Thomas, 1988):

- (1) Identifying a concourse on the topic of interest
- (2) Developing a representative set of statements (Q-set)
- (3) Specifying the respondents for the study (P-set) and conditions of instructions
- (4) Administering the Q-sort (rank ordering of statements)
- (5) Factor analysing and interpretation

5.9.1 Development of the concourse

The development of the concourse, the “*volume of discussion on any topic*” (Dryzek & Berejikian, 1993, p. 50) is not only the first step of the Q process, but is also the most important, as all later steps will flow from the decisions made at this point. The concourse defines the diversity of communicability (Jeffares, 2014) surrounding the topic that will be harvested to produce the Q-set statements, which in turn generate the understanding of operant subjectivity. The identification of the concourse is required to present a full understanding of the subject at hand, and not one prejudiced by the researcher’s *a priori* notions or analysis. The statements, which will form the stimuli are not intended to be a test of the subjects’ knowledge, rather they are a “*function of their understanding*” (Brown, 1997, p. 12) of the subject area, and are seeking to capture in as natural a way as possible the subjects’ own understanding.

The concourse must be sampled in a comprehensive manner to reduce its complexity to a manageable level and to ensure the capture of the totality of views within the component discourses. This sampling should encompass as wide a range of views as possible and develop these in a naturalistic manner to ensure that the viewpoints captured are recognisable to members of the P-set. In assembling the concourse a line is drawn in the sand, indicating what is included and what by dint of time and the requirements to proceed is excluded. So it is the case with research on Gov2.0. This is a rapidly developing field, with reports and research being developed during the research.

5.9.2 Development of the Q-set

The development of the final Q-set, the set of statements that will provide the stimuli for the P-set to respond to is a reductionist process of distilling the captured discourse into a usable set of stimuli. Dryzek & Berejikian (1993) advise the use of classification matrix, in their case Toulmin's classification of arguments and Alker & Sylvan's elements of discourse, which produced a four-by-four matrix. The intention of Dryzek & Berejikian's approach is to ensure an independent range of statements, and that the researcher is not leading or excluding a range of views because they are in some way uncomfortable. Contrary to this, however, Brown (1980) advises a more "*rough and ready*" approach (Dryzek & Berejikian, 1993, p. 51). Either way, the Q-set must be representative of the discourse and the issue at hand and allow a response to the research question via the provided set of stimuli. Watts & Stenner (2005) suggest that the development of the Q-set is a "craft", which must be practised.

The statements become the object of identification for the participant in an act of sense making around the topic. By limiting the opportunities for the individual's self-expression on the topic to the Q-set statements, the objects of the participant's definition, must then become and be self-descriptive to the individual. The need to use and utilise language with which the individual is not only familiar but of which the participant is the owner of is paramount. The initial selection matrix is shown in appendix 4.

In setting and determining the choice of statements, two options were been considered:

1) To use natural statements identified from the literature, informal conversations with practitioners and analysis of the topic.

2) To form the statements on two axes to ensure that each statement has a “heads” and a “tails” interpretation – i.e. apples are tasty; apples are unpleasant...

The aim is to produce a “*representative condensation of information*” (Watts & Stenner, 2012, p. 65). Factors may load positively on a statement for a variety of reasons, each independently different. Statements are malleable in their meaning, particularly to the individual undertaking the study. The use of natural statements is preferred for this research as it is important for the participants to be able to identify with the statements that they are presented with. Consequently, this study has been carried out with naturalistic statements, using language that it is expected that the participants (P-set) will be able to form opinions over, while not being confronted with an obvious “heads or tails” for each option. Statements originate from a variety of sources, from Internet discussions, conversations and published academic and professional literature.

In identifying the statements to be used, an initial list of 110 statements was identified. The literature on the execution of Q studies recommends that between 40 and 60 are selected (Watts & Stenner, 2012; Brown, 1980). The statements used in Q are entirely closed, they invite no other interaction than to be placed

within an order of preference to be determined by the participant, and while a further supplementary stage may be conducted to discuss the nature of the statements and the participants rationalisation of the placement and ranking decisions they have made; in its “raw” state, Q does not require this. Consequently the rationale behind the selection of statements being open and transparent within the research is important. To accomplish this, a selection matrix is to be used to ensure an even distribution of statements across the facets of Gov2.0 under investigation.

The selection of statements regarding the attitude towards Gov2.0, and its component aspects is made by selecting from the initial set of 110 statements down to the final set of 41. This forms the basis of the selection matrix, which is contextualised by Farmer (2005) and Miller & Fox’s(2007) public administration theories together with the aspects of opinion (and argumentation) drawn from Dryzek and Berejikian’s (1993) approach.

The matrix, detailed in appendix 4, allows a validation that all of the aspects under examination are included. All cells in the grid are represented by at least 2 statements, each statement offering a variation of opinion upon that aspect of Gov2.0, as defined in the literature. Following the results of the pilot study, the results of which are shown in appendix 5, and the resultant reduction in the volume of statements, the major themes represented in the statements are presented to the P-set. The size of the Q-set is, of course a compromise between a perfect representation of the concourse, and a size which makes the sorting

process less demanding for participants to engage with (Watts & Stenner, 2012). A perfect Q-set would comprise so many statements as to be impossible to complete, thus by becoming perfectly complete it becomes flawed for use. A balance is required, however in making a choice of what to include and what to exclude the researcher becomes part of the experimental result, as discussed famously by Heisenberg. The final Q-set is shown in table 5.5 below.

Table 5.4 Final Q-set

1.	When citizens are ignorant, it's much easier for waste and fraud to flourish.
2.	Technology has shifted the way we think about access to information.
3.	Transparency of information means anyone can access anything, anytime anywhere.
4.	You can trust strangers to act rationally.
5.	Digital technology empowers local communities.
6.	Most people are really busy, so expecting them to take time to really understand complex issues is unreasonable.
7.	The public don't have much new to say, that professionals have not already thought of.
8.	People should be able to buy the services that they want, from who they want and local government should ensure that they are OK.
9.	The existing legislative framework for information management is sufficient for public access.
10.	It is more important to protect privacy than to ensure information transparency.
11.	Increased transparency and public access to policy discussions risks reducing

	the ability of officers to look at unpalatable options.
12.	A wide diversity of opinions produces better answers than a few experts ever can.
13.	All voices are equal in a public policy and decision making process.
14.	Officer discretion is the theft of popular sovereignty.
15.	People are willing to take part in local decision making for selfless reasons.
16.	Collaboration with the public is better than delegation to the public.
17.	Local democracy is a sham, and that is not going to change.
18.	Good decisions can only be made by paid experts.
19.	Technology will not make local government stronger.
20.	People are more interested in debates around service delivery than policy formation.
21.	Local government information is public property and should be treated as such.
22.	Local authority data must be put in its proper context when published.
23.	There is a demand from the public to use data to develop new online services.
24.	Transparency should include conversations between citizens, companies and councils delivering public services.
25.	People don't care about their local areas enough to participate in policy debates.
26.	There is demand from residents to engage with the council using social media.
27.	Public participation should be incorporated into all local policy and decision making processes.
28.	If we invite people to take part they might not be interested.
29.	Improving public accountability at all levels of a council is vital.

30.	Policy debate and decision making should be a search for public consensus.
31.	Local government should be an enabler and not necessarily a provider of services.
32.	Local government needs to take more advantage of the Internet.
33.	People generally engage with councils on an issue by issue basis.
34.	Local authority data and information must be open by default.
35.	Greater public participation and information transparency will drive improvement.
36.	An open policy dialogue requires rules.
37.	Transparent, accountable and accessible government is just meaningless hype.
38.	Local government is fine the way it is, and does not need to change.
39.	We are moving towards an era of democratic co-design.
40.	Taxpayers must be able to follow their pound wherever it is spent.
41.	Design or delivery of services by residents should not be encouraged because it will lead to unfairness.

5.9.3 Technology for the Q-sort

A number of options exist for the administration of the Q-sort. These range from the use of laminated paper or card and sitting with the member of the P-set, to the use of online sorts which are self-administered by members of the P-set following invitation. A number of options exist for this, from proprietary software such as Q-Assessor (<http://q-assessor.com/>) to open source and free software such as FlashQ (Hackert & Braehler, 2007) and POETQ (Jeffares, et al., 2012). Details of the assessment conducted on the POETQ system are detailed in appendix 5.

The option of the traditional face-to-face administration of the Q-sort was dismissed for practical, rather than methodological reasons. The use of an Internet technology allows a quicker, simpler and cheaper manner of conducting the Q-sort than a visit to the participant. Large numbers of potential participants in disparate locations can also be contacted by email and invited to take part at their leisure, an important point given the large amount of time visiting participants in person would otherwise take. The use of a web based approach also supports the underlying assumption of Gov2.0, which is that on-line interactions are as viable, reliable and potentially more desirable to both the participant and the researcher as traditional methods. Therefore the success of the research in the recruitment of participants may be a comment on the assumptions that underlie Gov2.0 itself.

A number of additional questions were posed to those who were taking part in the survey. These questions cover their subject's demographic profile, as well as allowing some baseline questions regarding their thoughts and understanding regarding the subject at hand. The purpose of these additional questions, which act in the same way as follow-up interview questions in a face to face Q-study, is to allow a triangulation between the responses in the Q-set, and the demographic and the participants' views on these aspects. The additional questions, detailed in table 5.5 below, identified a baseline for each participant in terms of their authority and their understanding of Gov2.0. The interview questions were responded to on a Likert scale between 0-1 for agreement with the text presented.

Table 5.5 – Additional questions

1	I understand the concept of Gov2.0.
2	I am aware of the implications for the authority that I work in arising from Gov2.0.
3	My authority would encourage people to develop applications or services that use our published data.
4	My authority is keen to encourage and engage in social media debate on policy issues.
5	My authority is working to put in place the tools for information transparency.
6	My authority would consider public participation in council decisions.
7	People want to engage with Local Government on policy, not just service delivery questions.
8	Citizen opinions are as valuable as data driven facts.

5.9.4 The P-set

In this study, the P-set was composed of elected local councillors and employed officers who responded to an invitation to assist with the research. The group was, therefore self-selecting and may be considered to only include those with an interest in the subject. Responses to the invitation were received from a number of elected members who felt that their lack of knowledge on the subject prohibited them from taking part, for example *“As someone who’s [sic] use of the Internet is limited I feel it would be wrong for me to make a comment on a subject I feel not*

qualified in.” (An elected member, a unitary council).

While these declines to participate were regrettable, they are both understandable and hard to avoid. The nature of a self-selecting sample is that those who do not feel that they have anything to contribute, or who feel that the method in use is alien to them may not undertake the survey. This may have introduced a bias, in terms of the viewpoints collected. The invitation was sent to 470 elected members and officers from 25 local authorities including London boroughs, district, county and unitary authorities across the country. The names and contact details of members were collected from websites, using a stratified random approach (all portfolio holders and the group leaders) followed by a selection of other members at random. Officers were sampled from the same authorities, their names and contact details gained from the authorities’ switchboards. The officers contacted were the Chief Executive and management team. The survey was also posted on discussion boards used by Scrutiny, ICT and Information Governance officers. The result of these recruitment activities was a diverse range of 52 officers and members. The invitations were disseminated in November 2012.

The final composition of the P-set was thus:

Elected members 22, of which, District Council 9, County Council 2, Dual County District 1, Unitary Council 6, London Borough 1, and 2 Other. Of these 6 were members of cabinet, including 2 deputy leaders. The remaining members were ward members. Elected members were drawn from all political parties, however a large majority were representatives of the Conservative Party 13, Liberal

Democrat 3, Labour 2, Green, UKIP and Independent 1 each. The group comprised 6 female and 16 male with a mean age of 47.4 years.

Officers 29 of which 16 were employed by London Boroughs, 3 District Council, 2 County Councils, 5 unitary and 1 other. In terms of hierarchical position, one Chief Executive completed the survey, with the rest being Senior Managers 3, Managers 17 or employees 8. The officer Group comprise 10 female and 19 males, with a mean age of 35.5.

5.9.5 Administration of the Q-study

Measuring and deriving meaning from the Q-sorts are inextricably linked in Q, as in Heisenberg's uncertainty principle, the observer of the subjectivity is the person themselves, and this is also the person who provides the Q-sort measurements by the act of completing the sort (Brown, 1997, pp. 11,12). Q does not, and should not aim to influence the subject, and should strive to remain as independent as possible, it must be accepted that the style of presentation of individual statements, and the overall presentation of the Q-set can lead a participant down a line of thought. However the nature of the conditions of instruction, place the participant in a position of control. This control is reinforced by using a web-based approach as the researcher is not present as an influencing factor.

The condition of instruction, shown in appendix 6, the instructions provided by the researcher to the participant is of significant importance to the successful

administration of the study. Care must be taken to ensure that this is reproduced exactly for each participant. If variation is introduced into the wording of the condition of instruction, then the sort may represent a different understanding of shared subjectivity. Significant difference will be generated if some participants are asked to order the statements in line with those that they agree with most, while some are asked to sort by those they think are most like their point of view. Both statements could be interpreted differently by different participants. It is considered good practice to provide written instruction to participants, as this ensures an equal and unbiased condition of instruction is provided to all participants (Watts & Stenner, 2005; McKeown & Thomas, 1988).

Recording the distribution of participants' responses is conducted through a pyramidal distribution matrix, as shown in figure 5.3 below. The steepness of the distribution matrix, the kurtosis, is related to the likely familiarity of the participants to the topic, with a flatter distribution able to identify the nuance of opinion, and a steeper kurtosis focusing on the diversity of opinion in an area that participants may be less familiar with (Watts & Stenner, 2012; Brown, 1980). The kurtosis identified for this study is flatter recognising the intention to investigate practitioners' understanding of a topic with which it is expected that they will be familiar. Neutral statements perform an important role in the response, the very fact the participant does not rate these as important also tells a story, particularly if other members of the P-set favour this statement, then the act of neutrality may be seen as a comparatively negative reaction. An example of the completed matrix is shown in appendix 9.

observable realities of practice and the underlying perceptions of the subject that are held, and shared by practitioners (Alvesson, 2002).

The knowledge claims that are made as a result of these methods are essentially socially constructed, in that the generation of meaning comes from social interaction and engagement (Creswell, 2003). The understanding generated by content analysis is only possible due to the interaction between the researcher and the published material. The act of analysis is an act of interpretation of the published content by the researcher, and as such it must be acknowledged that this interpretation may differ from that intended by the publisher. Developing an understanding of the perceptions held by practitioners also requires interpretation. These interpretations are, it is acknowledged, influenced by the researchers own background and experiences of working in local authorities.

When the results of the Q-methodology investigation into shared subjective are brought together with the results of the analysis of the practice of Gov2.0 developed from the web content analysis, a picture is developed of how the subjective influences the practical. This study then is able to develop an understanding of how practice is developed from the competing frames of individuals, demonstrating that the reality of practice is not the result of a single, homogeneous approach to a subject, rather it is the result of a negotiation and merging of positions between individuals.

The next two chapters present the research findings. The first of these chapters

addresses the investigation into the delivery of Gov2.0 in local authorities through an assessment and analysis of the published website content. The second, chapter seven, presents the results of a Q-methodology study looking at the perceptions of Gov2.0 by English practitioners.

CHAPTER SIX: A CONTENT ANALYSIS OF GOV2.0 PRACTICE

6.1 Introduction

This chapter presents the results of a content analysis study of fifty local authority websites. The chapter provides an analysis of the prevalence of Gov2.0 functionality and provides an assessment of this against the 7 stage adoption model derived from Howle-Schelin (2003) shown in table 3.1, demonstrating the prevalence and levels of adoption of Gov2.0 within the sample. The results of web-content analysis demonstrate how the surveyed local authorities construct the practice of Gov2.0.

The observation and measurement of the functionality that is made available to the public by local authorities provides an assessment of the level at which the sampled authorities are meeting the often optimistic aspirations contained within much of the reviewed literature of Gov2.0. Understanding the nature and distribution of Gov2.0 functionality allows the development of a critical understanding of whether the notion of Gov2.0 is an example of a policy feature with inflated expectations (Jeffares, 2014) and little substance; whether the substance is being developed in different local ways, or whether the government's push for increased local transparency has resulted in an observably open culture developing online. This chapter will provide evidence addressing the second research question regarding the practice of Gov2.0. If Gov2.0 is a real and identifiable feature of the landscape of local authority activities, and is influencing

their behaviour, this should be apparent in the use of the functionality beyond that which the government is recommending in its Code of Practice (Department for Communities and Local Government, 2014). Conversely, if the content analysis should demonstrate that little or no evidence is visible of an adoption of the tools of Gov2.0, and then the reality must be questioned, in spite of the burgeoning library of books, article and web pages dedicated to its discussion.

6.2 The prevalence of Gov2.0 functionality.

This review of functionality, conducted between May and June 2014 investigates the displayed practice of Gov2.0, providing an analysis of the adoption of Gov2.0 functionality within a sample of one third of county and unitary local authorities. The results of this analysis are contextualised by a discussion of the role played by the inter-connectivity of the sampled websites. Through the application of content analysis, inferences are made that are directed by the content and its context, but also from analytical constructs that provide a focus for these logical inferences (Krippendorf, 1989). Prior to presenting the results and analysis it is valuable to review what constitutes an inference and from where the analytical constructs are drawn.

Inferences in content analysis can be made about both the causes of the content, and the effect of the content (Mayring, 2000). By inferences, we mean that indicative logical step from clues to developed understanding. Inferences, as with all logical steps, can be deductive, drawing upon a prior theoretical model;

inductive generating theory where knowledge is fragmented or partial (Elo & Kyngäs, 2008) and abductive. Abductive logic is described as “*relying on a set of accepted facts, abduction is a method of reasoning in which the researcher selects the explanations that would, if true, best explain the relevant evidence.*” (Visconti, 2010, p. 30). This analysis will draw upon abductive inference in its analysis, drawing on evidence from the review of website contents. Inference is used, as the developed understanding is out of sight, hidden behind a curtain of publication; the actions and decisions leading up to decisions over what to publish are hidden, and can only be inferred from the final actions and omissions. In this case the omissions, what has not been published, are as important as what has been. The value of the content analysis is from the artefacts of publication to define a social reality that is beyond that which is immediately visible.

These inferences can be viewed and reviewed through an analytic lens, referred to by Krippendorf (1989) as an analytical construct, a way of operationalising the text and the correlations within the evidence that is assumed to provide an explanation. The analytical construct takes the form of an “if-then” statement, offering an element of generalizability, by providing a set of rules that can be applied to other cases of content analysis. In this sense, analytical constructs form contextual theories that allow the coded information to be viewed and reviewed. The analytical construct is employed to ensure that the coding of the data is context driven and is relevant to the research question and does not become an exercise in the counting of abstract and unconnected elements of evidence. Krippendorf (1989) argues that without this theory driven foundation, inferences that are

derived from the evidence become valueless. The analytical construct underpinning this enquiry that was presented in chapter three, and models the components of Gov2.0.

6.3 Networking and connectivity

The context within which the publication of functionality is undertaken is the generation of visitors into the authority's website. Assuming that traffic is a measure of its success as a civic hub, and that traffic is in part delivered by the links into that website, then it can be said that a worthwhile measure of the success of specific website is the number of links inward; that is the volume of other sites that choose to link to a particular place (Das & Turkoglu, 2009; Olphert & Damodaran, 2007). The establishment of links is a voluntary activity, and signifies a relationship between the linked locations that one is able to offer the other an advantage through the sharing of content. The site being linked to offers some functionality or information that cannot be better offered elsewhere, either due to the reward that the linking site may gain (financial or other) or due to the accessibility or quality of information or functionality that is offered. In the case of local authorities, it is the latter that is important.

The linked addresses for all surveyed local authority websites were recorded, and the results of four of these are visualised to demonstrate the levels of variation in the data. The links are recorded by using the Google "Link:" search expression which reports the links into a website, with the results then reduced to domain

level. For example limiting the results for any links from the University of Birmingham to www.birmingham.ac.uk, rather than a set of links from various departments such as <http://www.birmingham.ac.uk/schools/government-society/departments/local-government-studies/index.aspx> allows a clearer picture of the organisational level linkages to be displayed. This reduces the volume of links that an authority website will have going into it, but this simplification allows the breadth of the network to be revealed. The results of four sample authorities are graphically represented in figure 6.1 below.

The resultant graphic, demonstrates how authorities such as Kent and Redbridge, which are highly networked differ from those such as Central Bedfordshire or Bury which are far less connected. Also demonstrated in these exemplars is the number of common or shared links. These are unsurprisingly low. Given the local focus of the activities of local authorities, it is to be expected that their Internet links are also locally based, and therefore the geographically distinct authorities chosen are not strongly interrelated. It is, however surprising how few nodes are shared by all four authorities. Those that are relate largely to national government and national local authority membership organisations.

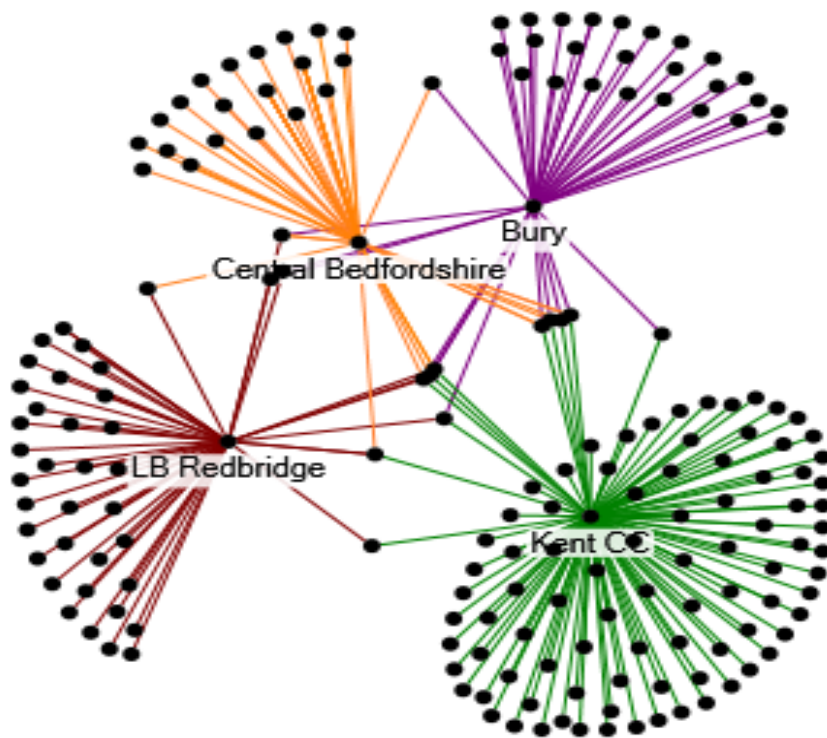


Figure 6.1 An exemplar of network effects

The volume of inbound of links, shown in figure 6.2 below, is measured by using the Alexa.com information service. The volume of in-bound can be taken for a proxy of the value that others see in the website, and therefore in the services offered by it. The greater the volume of inbound connections; the greater the value that others place upon the functionality and information recorded therein. The volume of links inbound is recorded as a simple number. These can then be rank-ordered to provide an analysis of the median and extreme levels of linkages, shown in figure 6.2 below. This networked information can be used as part of the analysis of Gov2.0 status.

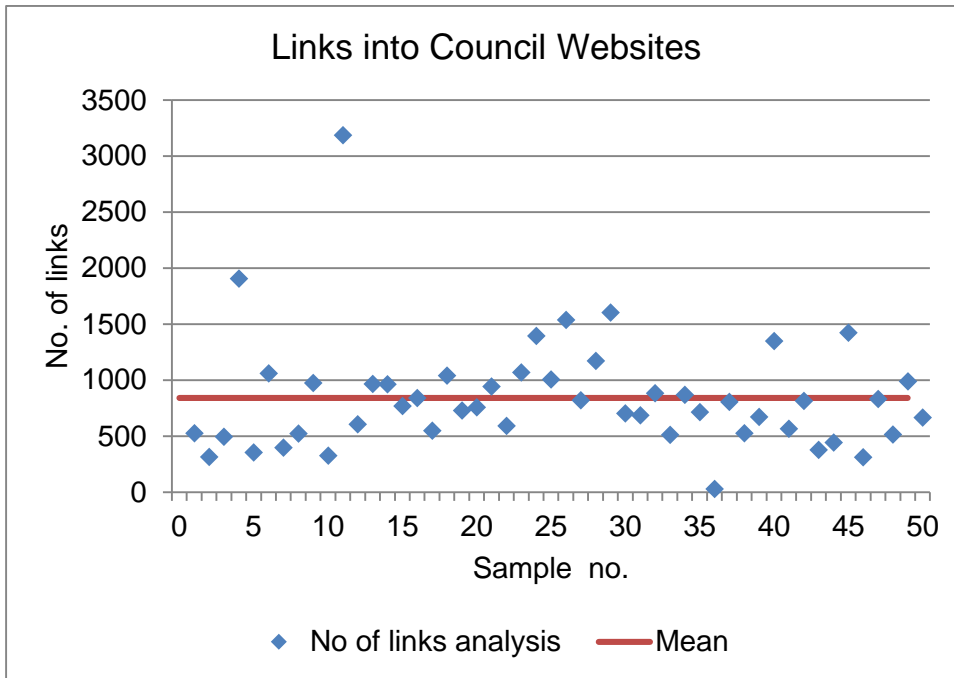


Figure 6.2 Links into local authority websites

The assessment of links into the councils demonstrated a mean level of inward links of 858. Within the sample set, there are a number of significant outliers with exceptional scores. These are the Corporation of London and Birmingham City Council and at the other end of the scale, South Tyneside with only 26 links. The Corporation of London, which has 3,186 inward links, is unique as a local authority in its global reach and interest, Birmingham City Council at 1905 links may also be considered an outlier, again reflecting the international and national status of the city.

Table 6.1, below, identifies the authorities with the greatest deviation from the mean. This identifies that in addition to the national and regional centres are the counties of Kent and Surrey. These County Councils do not fit the pattern of the other outlier locations as being a major conurbation and internationally known.

Table 6.1 Outlier Authorities

Highest		Lowest	
No. Of Links	Authority	No. Of Links	Authority
3186	City of London	26	South Tyneside Borough
1905	Birmingham	310	Wigan MBC
1602	Manchester	314	Barnsley
1536	Leeds	325	Central Bedfordshire
1423	Westminster	354	Blackpool
1394	Kent	377	Walsall Borough
1349	Surrey	397	Bury

6.4 Results of the content analysis

The value of this review of functionality in use is that it demonstrates the nature of variation in adoption across the surveyed authorities. The scores provided for each authority are the numeric output of the coding process used for the qualitative assessment of the functional nature of the service. These were developed by calculating the mean scores from each domain of observed functionality. A detailed set of coding scores is shown in appendix 3, which demonstrates the specific coded scores for each aspect reviewed within each domain. Each area of content was assessed, and therefore coded, against a theoretically informed matrix derived from the functionality previously outlined, following the approach of abductive inference (Elo & Kyngäs, 2008).

The domain level mean is used to demonstrate the individual authority’s overall level of adoption of the differing types of functionality. The results are displayed across the three domains of Transparency, Social Engagement and Platform Provision. The domain of transparency has been subdivided into the functionality that is presented in the 2014 Local Government Transparency Code, and wider notions of transparency. The scores are mean averages of the total score (0-3) identified in the coding structure. Those authorities with a higher mean score were found to have greater level of assessed practice within that particular domain. This demonstrates that, by way of example, Barking and Dagenham focus on the use of the tools of engagement to a significantly greater degree than they do for any of the other domains. This initial analysis demonstrates that the tools of Gov2.0 are indeed prevalent across the sampled authorities to some degree or other, but are not consistently adopted. As shown in table 6.2 below, no individual authority scored 0 in any of the domains, indicating that some Gov2.0 functionality has been adopted and is in use.

Table 6.2 - Results of coding of content analysis

Ref. No	Authority Name	2014 Code	Transparency	Social Engagement	Platform Provision
		Mean Score	Mean Score	Mean Score	Mean Score
1.	Barking and Dagenham	0.50	0.33	1.43	0.17
2.	Barnsley	1.36	1.50	1.57	0.50
3.	Bedford Borough	1.08	0.50	1.00	0.50

4.	Birmingham	1.62	1.67	2.29	1.17
5.	Blackpool	1.08	1.22	1.43	0.50
6.	Brighton and Hove	1.17	1.88	1.43	1.17
7.	Bury	1.00	0.50	0.67	0.83
8.	Calderdale	1.00	0.56	1.43	0.33
9.	Cambridgeshire	1.67	1.00	1.00	0.83
10.	Central Bedfordshire	1.25	0.89	1.29	0.50
11.	City of London	0.83	0.33	0.57	0.67
12.	Coventry City	1.25	1.33	1.86	0.33
13.	Derbyshire	0.92	0.78	1.43	0.50
14.	Dorset	1.62	1.00	1.43	1.00
15.	Durham	1.38	0.88	2.00	0.50
16.	East Sussex	1.67	1.44	1.71	0.50
17.	Enfield	1.85	1.63	2.14	1.17
18.	Hackney	1.62	1.13	1.29	0.67
19.	Hammersmith and Fulham	1.58	1.50	2.14	1.40
20.	Haringey	1.50	1.22	1.71	0.50
21.	Hertfordshire	1.69	1.33	1.43	0.83
22.	Isle of Wight	1.50	0.50	0.57	0.33
23.	Islington	1.54	0.89	1.43	0.50
24.	Kent	2.08	2.44	2.14	2.50
25.	Lambeth	0.42	0.63	2.14	0.67

26.	Leeds	2.08	2.22	2.00	2.00
27.	Leicester City	1.77	1.78	1.86	0.67
28.	Leicestershire	1.62	2.11	1.29	1.00
29.	Manchester	0.83	1.22	1.71	0.33
30.	Medway	0.58	0.89	1.14	0.67
31.	Northamptonshire	1.58	1.67	2.29	1.00
32.	Oxfordshire	1.69	1.11	1.86	0.50
33.	Redbridge	2.23	2.71	2.57	1.67
34.	Richmond upon Thames	1.62	2.00	2.29	0.83
35.	Salford City	1.46	1.25	1.14	0.83
36.	South Tyneside Borough	1.31	0.75	0.71	0.50
37.	Southampton City	1.92	1.11	1.43	0.67
38.	Stoke-on-Trent City	1.69	1.00	0.86	0.50
39.	Suffolk	1.42	1.22	1.29	1.17
40.	Surrey	1.54	1.22	2.29	1.83
41.	Tameside	1.00	0.78	1.29	0.50
42.	Tower Hamlets	1.31	1.11	1.71	0.83
43.	Walsall Borough	0.42	0.11	1.00	0.17
44.	West Berkshire	0.92	0.89	1.43	0.50
45.	Westminster	1.62	0.78	1.43	0.50
46.	Wigan MBC	0.75	0.56	0.86	0.33
47.	Wiltshire	1.42	1.11	1.29	0.50

48.	Windsor & Maidenhead	2.33	1.67	2.29	1.17
49.	Worcestershire	1.42	1.56	2.50	1.17
50.	York City	1.00	1.75	1.43	1.00

6.4.1 Assessed delivery of Gov2.0

The results of the website analysis show that local authorities in England are utilising the tools of Gov2.0 to different extents and in different ways. This is, perhaps unsurprising, given what we know about the diversity of behaviour in local government. The results of the content analysis research demonstrate that diversity of provision through the variation in the application of functionality. There was no single authority in the survey that could, at the time of completion, be said to be delivering fully on all of the available functionality. Some notable authorities can be said to be making greater strides towards this than others. The adoption of the tools of Gov2.0 is not a prescription but a set of adoptable practices.

Reviewing the total score, which is the sum of the scores against all domains of Gov2.0, significant differences between the two ends of the spectrum can be seen. The range of results was 63 points (minimum of 13 for Walsall Borough Council and a maximum of 75 for Kent County Council); the mean score across all domains was 43. The maximum possible score, achieving 3 in all functions and in all domains would be 98. This range in results demonstrates the variety in provision across the surveyed authorities; however the data does breakdown into

a set of distinct and discernible groups, which will be the focus of the later analysis in this chapter.

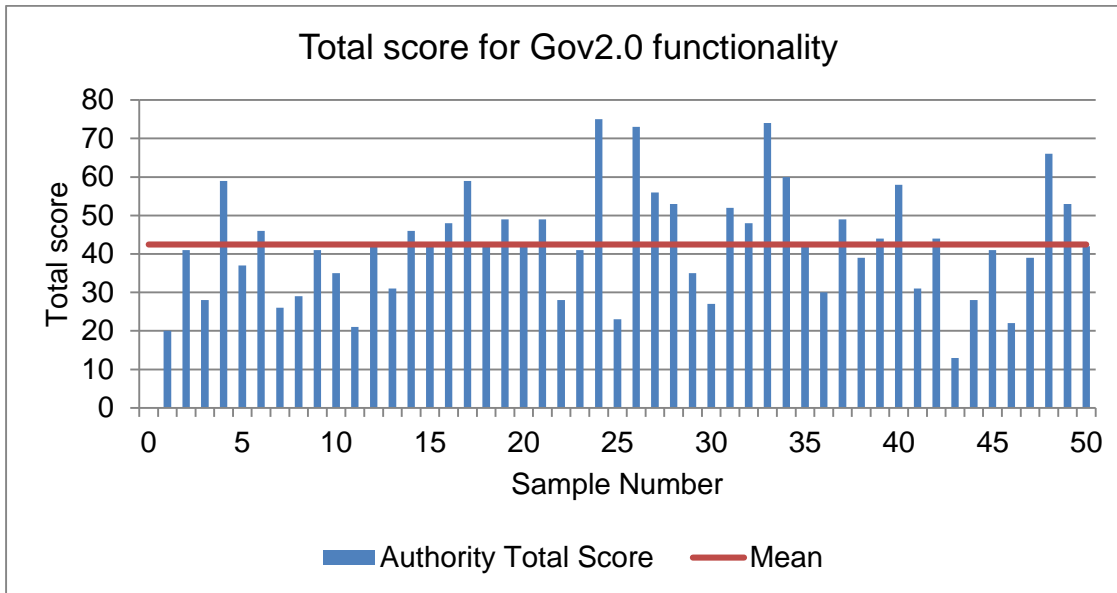


Figure 6.3 - Total scores for Gov2.0 Functionality

The tensions arising from the competing demands of developing integrated and holistic public services and the constraints of sharing and holding of data that enable such policy development was highlighted by Bellamy et al. in 2005. A number of areas where data is shared for the public benefit are identified such as the reduction in welfare fraud (p.398). Concern rightly exists regarding the sharing of personal data, and the implications of this. The development of private and accessible “big data” solutions and systems such as Hadoop mean that the risks explored by Bellamy et al (2005) have grown from the implications of the state piecing together information to greater processing by the private sector. The sharing of data by local authorities must be considered in this context; that data published exhibits the qualities specified by the Information Commissioners Office,

in particular regarding anonymity. Within the sample population, local authorities were striking this balance by following the strategy identified by Bellamy et al. (2005) of privacy takes precedence, where the imperative to protect privacy takes precedence over any other benefits that may accrue from publication.

The development of publicly accessible data warehouses by local authorities has not yet become a common or expected feature of the sector. Within the sample population, only nine authorities had what would be described as a data warehouse which included the publication of all, or a sizable selection, of their data in a single and accessible location. Of these nine, only three published details of the API allowing web service calls to the data, and thus facilitate the development of applications and services that rely on their data. Transparency opens the door to wider notions of the co-production of services between the council and residents. Internet enabled co-production has often been driven by the geographic locations of services, such as “find my....” or “report it” services. Engagement with the developer community to try and push the boundaries of what can or should be considered as a citizen developed/used service that is built upon local authority public data appears from the survey results to be occasional and sporadic.

This analysis now turns to the varying adoption of the domains of Gov2.0, and the depth of adoption within each. This analysis is intended to investigate the detailed variety of adoption and to allow an investigation of the impact of the identified frames of reference developed from the Q-methodology research to be overlaid upon the delivery of the practice of Gov2.0 in the final conclusions section.

6.4.2 Transparency Functionality

This section reviews the use of transparency functionality, including that defined by the 2014 Code, as well as the wider notions of transparency and open data drawn from the literature. The Government has recognised the value and importance of the transparency agenda. Its response following the publication of the *Improving Local Government Transparency* consultation (2014) has been a set of recommended practices around the publication of data, published as the Code for Local Authority Transparency (2014). The Code, published by the Department of Communities and Local Government, serves as a set of recommended minimum practice standards that local authorities should follow. In spite of the recommendation of the 2014 consultation, that specific data sets be made mandatory, the Code is a set of recommendations, rather than a legal standard that must be adhered to. The Code is subservient to the established primary legislation surrounding privacy and transparency; the Freedom of Information Act (2000 – as amended 2012), the Data Protection Act (1988), the Environmental Information Regulations (2004), and the Re-use of Public Sector Information Regulations (2005).

It is assumed in this research that compliance with the Code will form the minimum for delivery of Gov2.0, however in an atmosphere of continuing budgetary pressure for local authorities, it may be expected that not all local authorities will seek to comply with all of the recommendations immediately. Delivery above the

level of the Code would suggest that an authority has made a significant effort to adopt and implement the principle of transparency. When this is combined with the results of other domains, the combined local logic of Gov2.0 emerges. The mean score level for compliance was 1.39 (from a maximum of 3); notably below the level of 2, which would indicate compliance. A number of trends may be seen regarding adherence to the recommendations.

Publication of spending over £500 is ubiquitous within the sample group. This information is easily found on all but three authority's websites (these being Barking and Dagenham whose transparency pages were unavailable at the point of search; Wigan and Walsall.) Wigan Council has 4 stars from Socitm, making it one of the best performing websites in the country, within the Socitm grading, however with regard to transparency of information, as defined by the Local Government Code 2014, basic information such as monthly spending data was only available upon request at the time of the investigation. Wigan records a low score on all aspects of transparency, suggesting that the focus for this authority is upon published indicators and peer recognition.

Other areas of common levels of provision of data specified in the Code across the sample concerns information detailing management and organisational structure, pay multiples as well as data regarding procurement and available contracts. The information regarding procurement and contracts was found to be held on the business pages, with procurement and tendering information seen as a service for local businesses, as part of the council's business support to assist them in the

procurement process; rather than as part of the transparency and accountability agenda to be used to support questions of “what are you purchasing, and why?”. This positioning then breaks the associative link between expenditure and the tendering process (and its results). While clearly providing beneficial support to the business community, this architectural decision may have negative impacts on the accountability functionality of the website.

While much of the functionality anticipated by the government is generally made available, differences are seen in terms of the quality and availability of the information. For instance, the availability of information regarding parking income may be available via a data observatory or warehouse, on text pages in the parking section of the website, or hidden either in the parking services annual review such as by Islington Council who produce a PDF of some 30 pages, or presented as a note in the annual accounts, a PDF of around 250 pages. In all of these cases, the information is available, if one is sufficiently interested to search for it.

Of the twelve functions assessed as part of the 2014 Code, five were either consistently lacking in any information, or that information was hard to access or in a locked down format¹². Information regarding the costs of trade union activities, where the authority as the employer makes both employee time and facilities available to recognised trade unions was only provided by only Leicester City Council and then only partial information was available. It is unknown why this

¹² These being: details of land and buildings, grants over £500, trade union facility time, parking revenue and the number of controlled parking spaces.

information was not provided more commonly, however a number of theories can be proposed. The expectation for publication of this particular data item is comparatively new, and therefore authorities may still be in the process of gathering the data, alternatively the information may not be recorded in easily publishable manner. The third and more concerning option is that this information is not being published for fear of the public reaction.

A second piece of data that is irregularly published relates to the authority's ownership of land and buildings. This information, if published at all, is in the annual asset management plan, a detailed PDF document detailing the authority's assets, their condition and any established or published plans for their use. A number of examples of very good practice exist with this geographic data, such as by Windsor and Maidenhead by integrating this information into mapping software to allow users to search for information, and the publication of the data with geocoding attached (northings and eastings) for it to be reused in a third party geographical system.

Beyond the information that the government has included in the 2014 Code, the wider understanding of transparency functionality is included in the assessment, such as the broadcast (or webcast) of Council meetings, the publication of detailed performance data and the publication of a Freedom of Information disclosure log detailing what information has been requested under the Freedom of Information Act and how the authority has responded. These tools are discussed in the Gov2.0 literature as being valuable for bringing government into the transparent digital era,

and supporting Gov2.0's lofty aims of a revitalisation and reinvention of (local) government as citizen oriented (Newsom, 2014; Lindquist, 2013).

Within the sampled group of authorities there appears to be no correlation between the use or non-use of the tools of transparency and either the authority type, or the political control of the authority. The data developed (shown in table 6.3 and 6.4 below) does not allow sweeping conclusions such as one party is more transparent than another, rather the results are more nuanced and paint a richer picture which supports the proposition that decisions regarding the adoption of functionality is made on an individual basis, influenced by how the decision maker frames the issue. This supports the conclusions of previous research including Ellison and Hardey (2013), who identified when looking at the use of social media in local authorities that "...*there appeared to be no clear association*" (p.29) between the use and political control, or the council's geography.

The use of the functionality associated with the extended definition of transparency does demonstrate the popularity of specific tools amongst the sample. Of those reviewed, the most widely adopted is the publication of the Members' Register of Interests, and the monthly payments detail. These pieces of information have been collected regularly within authorities as part of the normal routines; indeed the Localism Act 2011 requires that the Monitoring Officer maintains the Register. Publication of this information is not a technical challenge, nor does it require a new assessment of public interest in the information, rather a conscious decision is required regarding the value of publication.

The same may be said of performance data which is routinely collected by local authorities but which is, again, less routinely published. When performance information is published it is most often in the form of a quarterly performance report, rather than providing the public with unfettered access to the raw performance data. The case of Enfield is an exception in this regard, Enfield Council make their performance data available via their in-house reporting system, Covalent.

The broadcast of Council meetings while far from ubiquitous is not uncommon within the sample group. The technology behind the broadcasting of meetings on the Internet is provided, within the sample group, by a single company, Public-i. This externalised provision offers both the live broadcast and facility to store and replay old broadcasts. Authorities advertising this functionality do so on the basis that it enhances the level of democratic access locally, offering access to the authorities decision making processes for all residents with an Internet connection without having to attend the council chamber. The use of broadcast technology has been criticised as being a poor use of money, particularly in the national press. A report in the Daily Telegraph (March 2013) suggested that the take up of the service was disappointing for some meetings (down to 3 for the Bristol City Council Cabinet meeting of 31/05/2012), and represented poor value for money. However Bristol Council report that their highest viewings of live and archive recordings total 417,000 viewers including 23,606 viewing the 2012 Mayoral and PCC election results, (Bristol City Council, 2015; Daily Telegraph, 2013).

Table 6.3- Analysis of Transparency Tools by Council type

Council type	Mean of performance reporting & data	Mean of broadcast of Council meetings	Mean of FOI disclosure log	Mean of register of interests	Mean of monthly payments	Mean of Open Data warehouse
County Council	1.67	1.25	0.67	1.83	2.00	0.75
London Borough	1.08	0.82	0.36	1.67	2.00	0.83
Metropolitan Borough	0.83	0.91	0.36	1.67	1.73	0.42
Unitary	0.93	0.86	0.73	1.54	2.07	0.36
Grand Total	1.12	0.96	0.53	1.67	1.96	0.58

Table 6.4 Analysis of Transparency Tools by Political Control

Council type	Mean of performance reporting & data	Mean of broadcast of Council meetings	Mean of FOI disclosure log	Mean of register of interests	Mean of monthly payments	Mean of Open Data warehouse
Conservative	1.44	0.94	0.88	1.88	2.13	0.81
Independent	0.00	0.00	1.00	0.00	2.00	0.00
Labour	1.04	1.04	0.39	1.76	1.96	0.54
NOC	0.86	0.86	0.00	1.14	1.57	0.29
Grand Total	1.12	0.96	0.53	1.67	1.96	0.58

The final sets of transparency functionality assessed are those shared with the extension of platform provision, the tools of access to data. The provision of a data warehouse, associated API and licensing rights to allow access to and use of the data, is one of the least provided areas of functionality within the sample group. It is perhaps unsurprising, given the financial, time and organisational set-up costs, for such a facility that it is the least available areas of functionality. However, in not providing this method of publication these authorities are not issuing an invitation to the public to use and explore the data or to engage with the authority as part of the long-tail.

These councils, who can be seen to have adopted these further transparency services have moved beyond the minimal publication of information, and moved to become genuinely transparent with their data, and their behaviour. Combining accessible data stores with transparent decision making, including the broadcast of council meetings shows a commitment to transparency in its fullest sense. This group includes Kent County Council, Hammersmith & Fulham, Leeds City Council and York City Council. Authorities which also fall into this set demonstrating high practice in transparency include Redbridge, Kent, Windsor and Maidenhead, Hertfordshire, Enfield, Brighton and Birmingham. All of whom have well developed data observatories allowing the citizen to interrogate and investigate information necessary to hold the authority to account.

6.4.3 Use of social engagement functionality

A second set of identified local authorities are those that whose focus is upon the practice of engagement through the use of both standard consultation practices, e-petitions and harnessing the power of social media to inform residents of service offerings and to directly deliver services and respond directly to resident enquiries. These qualities are identified within the domain of social engagement. The authority with the greatest identified levels of adoption in this domain was Redbridge, followed by Worcestershire, and Northamptonshire, Richmond-upon-Thames and Surrey. The diversity of performance within this category is surprising, given the level of maturity of these tools and the intrinsic nature of engagement to local authorities. In short public engagement is not new, nor are the tools of social media, or activities such as demonstrating how the results of engagement are used to drive policy (Noveck, 2009). A study by Ellison and Hardey (2014), conducted in 2011, demonstrated that social media as a tool for many-to-many communications has been adopted in 231 authorities (60%). As the study points out, there is a significant difference between having a social media presence and the adoption of the technology as a means of communication, and its use as a many-to-many form of transparent communication, specifically for discussion and consultation on matters of policy.

The functionality of social engagement reviewed in the study, represent a use of the tools of social networking that have defined the second generation of the Internet since 2004 (O'Reilly, 2007). It estimated 61% of UK Internet users are

involved in an online social network of some type, and that social media use accounts for 23% of time spent online (Dutton, et al., 2013). The tools of social engagement spring from the theoretical assumptions that are captured within the phrase “wisdom of the crowds” (Surowiecki, 2011), the so called power of the long-tail.

The use of this functionality was again uninfluenced by either the party in overall control, or the authority type. The use of different tools by the authorities reviewed demonstrated a strong tendency to use those tools which supported the status quo relationship between the public and the authority. The functionalities which alter this relationship, such as the processes of co-design and co-decision scored the lowest average, as did the demonstration of how consultation responses have supported the council’s decision making or priority setting activities. Conversely, the highest scoring functionality provided was the use of online consultation portals and the use of social media (most notably Twitter and Facebook) as broadcast media. The way in which local authorities are engaging with their residents is more akin to what may be thought of as the traditional model of engagement, described by Howle-Schelin (2003) as being at stage three in the typology, the interactive web presence.

Of the surveyed authorities, 23 presented no evidence of the publication of consultation responses. All of these had some form of online listing of consultations that were to be carried out, and 14 had a detailed consultation portal that allowed access to closed consultations, however the results of the

consultations were not published. This is not a technical gap, the technology is proven elsewhere, rather it is a specific omission and lack of desire to close the consultation circle and inform residents of the impact of their engagement. By following this model, engagement becomes only half a conversation, and citizen impact becomes impossible to understand.


Online petition systems, which were mandated under the 2009 Local Democracy, Economic Development and Construction Act (Chapter 2) were unsurprisingly ubiquitous in the survey group, with these being obviously and readily available in 43 of the 50 sampled authorities, that this figure was not 50 out of 50 allows the questioning of some authorities commitment to the intention of the legislation. Authorities such as Bury, where the option to request that the council set-up an e-petition on your behalf are five clicks from the home page, and then require the requestor to submit the wording for approval. On the face of it, e-petitions provide an excellent method for citizens to formally engage and raise their views on issues with which they are concerned. Central to the success of the online petition is the publication and publicity associated with the petition. Clearly the primary responsibility for this will remain with the petition organiser; however the accessibility of the petition system will influence its success. The average “depth” of the petition system in the surveyed websites was four clicks from the homepage, as a link from the consultations page. The standard route to find the petition page would be `home/council&=democracy/consultations/e-petition_portal`. The would-be signatory then has to locate their petition of choice, and if they have not previously done so, register prior to signing. The registration process is

intended to prevent the mass automation of signatures to each petition, ensuring that an individual can only sign a petition once, as in the case of the paper petition where the identity is normally recognised by a combination of data (name, address etc.), and signature as an individual identifiable mark. This complexity of access may result in a reduced number of signatories.

Beyond the petitioning, authorities within the survey are making use of social media to communicate with residents, and to a lesser extent for residents to communicate with them. The differential between the volume of messages broadcast; and the volume received is significant. The social media services most used by authorities within the sample population were Twitter and Facebook, with some also making use of YouTube, Pinterest and Flickr. These services are typically used to broadcast what could loosely be termed “public information” messages. Councils use these channels to host their own, as well as wider public sector information, most notably Police Service and Fire Service announcements. In some cases third sector information is also published.

The largest area of difference between the sampled authorities’ use of social media is the volume of communication that flows in two directions, and to what degree citizens use these channels to acquire services, either for themselves such as additional waste food bags or for the wider community such as reporting a defective street light or damaged road surface. Tweets in particular are used for the reporting of service requests, and initial complaints about non-provision of services. For example, the conversation shown in figure 6.4 below, between a

resident and Surrey County Council regarding the condition of a roundabout demonstrates the value of the technology in being able to illustrate a complaint with photographic evidence, and of the public display of a complaint. Ellison and Hardey (2013, p.31) noted that, in 2011, “...these exchanges are few and far between...and are typically brief...in order to pursue an issue with a particular service”. This service focus remains the case in the 2014 tweets reviewed.

<p>@lan##### 7:24 am - 28 Jun 2014</p>	<p>Lasted a few weeks this time! @SurreyCouncil @Valerie#### Needs road kerbs not loose granite sets. pic.twitter.com/GtmYVGWRAP</p> 
<p>14:23 - 30 Jun 2014 @SurreyCouncil</p>	<p>@lan##### Please report the kerb stones to Highways using http://ow.ly/yAHkA and they'll be able to respond to you.</p>
<p>18:26 - 30 Jun 2014 @lan#####</p>	<p>@SurreyCouncil I have reported twice before and the repairs have been inadequate only lasting weeks. Needs to be reviewed not just patched.</p>

	The conversation ended at this point.

Figure 3.4 Twitter use to record Customer Service Request

Since Ellison and Hardey’s research was conducted, the use of twitter has expanded from 68 million active users worldwide in Q1 2011 to over 302 million in the first quarter of 2015 (Statista.com, 2015). Given this level of growth, it is unsurprising that twitter use has shifted from occasional to a more common way of contacting authorities. However, Ellison and Hardey’s remarks regarding the service focus of the interaction remain applicable.

Finally the domain of social engagement sought to identify the extent to which the authorities demonstrated the co-design of services and co-decision that is public and publically participative decision making. These two functionalities may not, necessarily be provided only online, indeed it is unlikely that this will be the case. Taking the notion of co-design first, this is described as being the opportunity for citizens to be involved in the development of a new policy or service, typified by the US Government’s Open Government Policy (2009), introduced by President Obama. This aimed to solicit policy ideas through a crowd-sourcing platform that allowed citizens to suggest and revise ideas in an open manner (Kannan & Chang, 2013). This idea of designing public services *with* the public, rather than *for* the public is taken up by the Surrey County Council strategy “*Confident in Our Future*” (2013) which in its vision for 2018 specifically references this idea of designing services in a co-operative manner with residents (Surrey County Council, 2013).

Much of this co-design can be seen in the arena of strategic land-use planning by local authorities. The Cambridgeshire County Council "*Shapeyourplace.org*" web site presents a strong example of the practical application of this theory. Within the sample population, 11 authorities demonstrated no evidence of co-design activities. This may be due to their position within the policy making cycle, that they were not at a point in the production of policy that co-design was possible. However given the scale of activities undertaken by local authorities, and the volume of policies and services that top-tier authorities are responsible for, this would appear unlikely to be true in all cases. The alternative explanation is that these authorities operate in a more traditional, closed manner. It may also be the case that the authorities do not publish their co-design activities on the web, and do not utilise the technology for these purposes. Those authorities who did not display any evidence of co-design were also unlikely to undertake the publication of consultation responses. This lack of publication suggests that while the public are consulted on policies, or decisions, their input is not decisive. Policy cannot be said to be designed in a partnership, if consultation is conducted after the design, as part of the approval and agreement phase. Perhaps what is a greater surprise is the extent of co-design within the population. That 78% of the sample demonstrate the use of this shows that local authorities are not the isolated and unresponsive bodies that they are sometimes characterised as.

Co-decision relates to the use of public decision making, either in conjunction with the formal and official mechanisms of the council or delegated to the community. The latter is found most often in the sample group being used in support of small

community grants. Only five authorities in the sample demonstrated significant use of this functionality. Most significant was London Borough of Lambeth, who brands themselves as a “Cooperative Council”.

6.4.4 Use of the tools of platform government

The results of the reviews showed only very limited levels of adoption of platform functionality. The functionality associated with platform provision, as described by O’Reilly (2011) requires a commitment for the authority to provide information, and to be willing to engage with third parties to develop and provide additional functionality outside that which the authority has self-identified. Platform provision requires a commitment to transparency of information and to community engagement. The interconnected nature of Gov2.0, and the ensuing requirement to implement the logical and physical architecture of the domains of transparency and social engagement in order to deliver platform provision may be one reason for the lower level of adoption of this functionality. Another being that this requires a commitment to the opening up of provision and an acceptance that the model of planned and directly provided or commissioned service is able to be challenged. Most of all platform provision requires trust in the ability and actions of strangers. Platform provision cannot be adopted without the appropriate governance structures, the hosting of applications to ensure that they are functional and safe to use risks the authority hosting malicious content, and suffering reputational and potentially financial losses as a result.

Those authorities that can be seen to be engaging with platform provision, notably

Kent, Leeds, Surrey and Redbridge are doing so without an obvious strategy of promotion or wide publication of the benefits. The toolkit is available for developers to make use of, but is hidden away either in the transparency section of the website, or on a separate website, such as kentconnects.gov.uk. This suggests that platform provision is not a strategic activity, but rather an experiment that is being conducted or that it is the result of the activities of a few individuals.

The least used aspect of the identified platform provision functionality is the hosting of hack events designed to attract developers to produce and invent new services based on published data. Engaging with the developer community allows authorities to develop civic entrepreneurship (Alfred & Alfred, 2013), individuals with the skills and desire to play an active part of society and who, if encouraged, will develop new and innovative approaches to civic problems. While many examples of civic entrepreneurship exist, such as those offered by Suffolk County Council, which has developed a suite of mobile friendly applications, interfacing with council systems, shown in figure 6.5 below.



Figure 6.5 - Suffolk County Council mobile applications

A number of other authorities have engaged the wider development community, including Kent County Council through their OpenKent and Kent Connects portal, Surrey County Council and briefly during the Olympics, Hackney (however after this brief engagement and establishment of a competition, Hackney is no longer promoting this). Kent and Surrey have had some success; however in the UK, at least within the sample undertaken for this study, there are no authorities which have engaged in this form of interaction in the same way as can be seen in a number of US cities, such as New York, Chicago or even Portland (Newsom, 2014; Townsend, 2013).

6.4.5 Prevalence against the seven stage development model

The use of functionality by the surveyed authorities allows an analysis of their position against the seven stage adoption model (table 3.1) developed from

Howle-Schelin's (2003) original five stage model. This model identified increased use of the technology from basic administrative use at stage one through the introduction of basic citizen services at stage three adding greater complexity and interaction to these and culminating at stage seven with an influencing network of users.

The position of a given authority within the model has been determined on the basis of an assessment of the sum of the mean for each domain. These are then rank ordered and grouped by their scores. The model identifies that the delivery of Gov2.0 functionality, which can be seen in stages six and seven, while the preceding stages can be thought of as developments of e-government. The delivery of Gov2.0 functionality, shown in figure 6.4 below, when assessed against this model, is visible in 13 of the 50 (26%) surveyed authorities. Of those located in stage 5 many provide clear elements of Gov2.0 functionality.

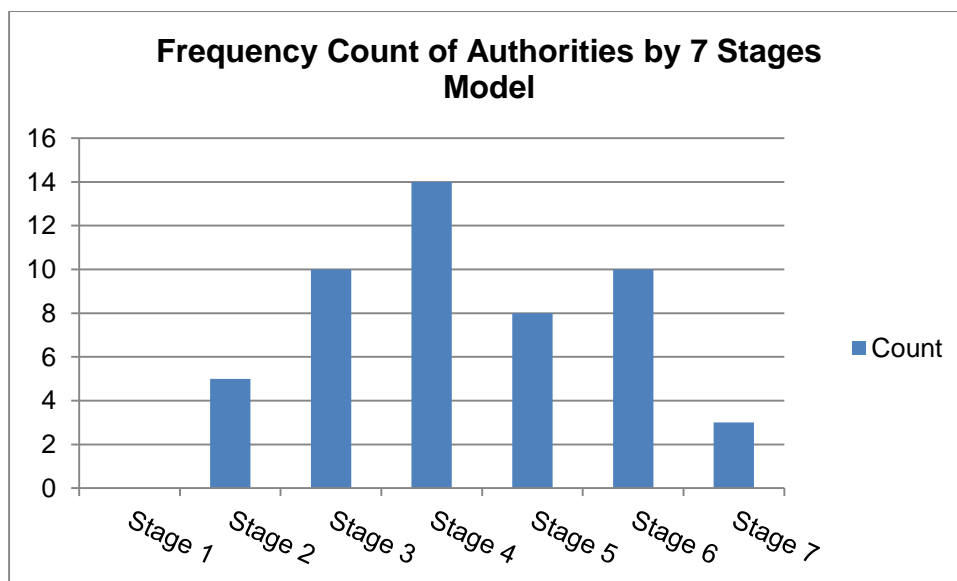


Figure 6.6 - Frequency count of authorities against the 7 stage development model

The reviewed authorities can be identified as forming three distinct groups drawn from their position against the seven stage development model. A set of authorities who deliver strongly against the literature of Gov2.0 and are themselves split into two overlapping sub-groups who perform strongly against the transparency aspects, and those with a stronger focus on civic engagement and have not developed beyond stage 3 in the model overall. A set of authorities that do not deliver against the Gov2.0 functionality as it has been defined and a large group of authorities who delivery at stages 4 and 5, as shown in figure 6.6 above, who while not performing at the extremes of the spectrum, are delivering some services within the Gov2.0 functional competencies. While the model implies firm delineation between the stages, the reality of delivery is that authorities can be seen to deliver Gov2.0 functionality strongly in one domain, while doing very little in another, which reduces their position in the model, since Gov2.0 is being considered in the round. Consequently a simple reliance on this analysis would provide a misleading narrative.

6.4.6 Political and organisational factors

The political control of the authority does not appear to be a valuable guide to the adoption of the tools of Gov2.0, with the exception of the adoption of the tools of platform provision. Conservative controlled authorities, of whatever organisational type, have adopted this tool to a greater extent than those of other parties (table 6.5 below). This may be considered to be in line with the adoption and promotion

of outsourcing by local authorities under national Conservative governments (Wilson & Game, 2002), and with other policies adopted and implemented by the Conservative party nationwide, such as the NHS reforms that introduced the internal market (Hughes, 2003). The tools of platform provision are identified as offering a greater level of libertarian-paternalism, which may intrinsically appeal to Conservative councillors to a greater extent than to those of other parties (Johnson & Robinson, 2014; Corbett & Walker, 2013).

Table 6.5 - Analysis of all Domains by Political Composition

Political party	Mean of 2014 Code	Mean of transparency	Mean of social engagement	Mean of platform provision
Conservative	1.52	1.36	1.68	1.00
Independent ¹³	0.83	0.33	0.57	0.67
Labour	1.35	1.21	1.58	0.74
NOC	1.22	0.87	1.29	0.50
Grand Total	1.37	1.19	1.55	0.79

The type of authority, whether a traditional county council, an urban borough or a more recently created unitary authority does not appear to be a major influence on the adoption of the tools of Gov2.0, although there is a slightly greater predisposition towards platform provision in county councils, mirroring the result

¹³ The City of London Council is counted as independently controlled as it claims to have no party politics (Wilson & Game, 2002)

with Conservative control. There appears no predisposition for the unitary authorities, created within the “Internet age” to make any greater use of the technology than other authority types, as shown in table 6.6 below.

Table 6.6 - Analysis of all Domains by Authority Type

Authority type	Mean of 2014 Code	Mean of transparency	Mean of social engagement	Mean of platform provision
County Council	1.58	1.41	1.72	1.07
London Borough	1.39	1.19	1.74	0.80
Metropolitan Borough	1.17	1.04	1.38	0.65
Unitary	1.36	1.15	1.39	0.66
Grand Total	1.37	1.19	1.55	0.79

Content analysis demonstrates that Gov2.0 is a discernible and prevalent activity for local authorities. The existence of Gov2.0 functionality across the reviewed authorities irrespective of geography, organisational model or political control demonstrates this. Gov2.0 is not simply London or a county council, or even a political “thing”. The prevalence witnessed demonstrates that this is an embedded feature of the activities of local authorities.

6.4.7 Traditional e-government delivery?

There are a group of authorities categorised as traditional adopters of local government IT solutions. These authorities are offering their residents a set of interactions and activities that are more in keeping with the traditions of NPM where rather than offering the decentralized and interactive approach of Gov2.0; they retain the centralized, singular model of service delivery (Dunleavy & Margetts, 2010). These authorities, which have a mean score of below 1.0 include The Isle of Wight, Wigan and Bury Councils, can be seen to be delivering the minimum levels of functionality associated with Gov2.0, they are councils that are digitally engaged, as far as the government expects but from the demonstrated functionality cannot be seen to be embracing the philosophy of Gov2.0. Within the scoring system utilised in this section, a line can be drawn identifying these authorities by their consistently low scores across all domains.

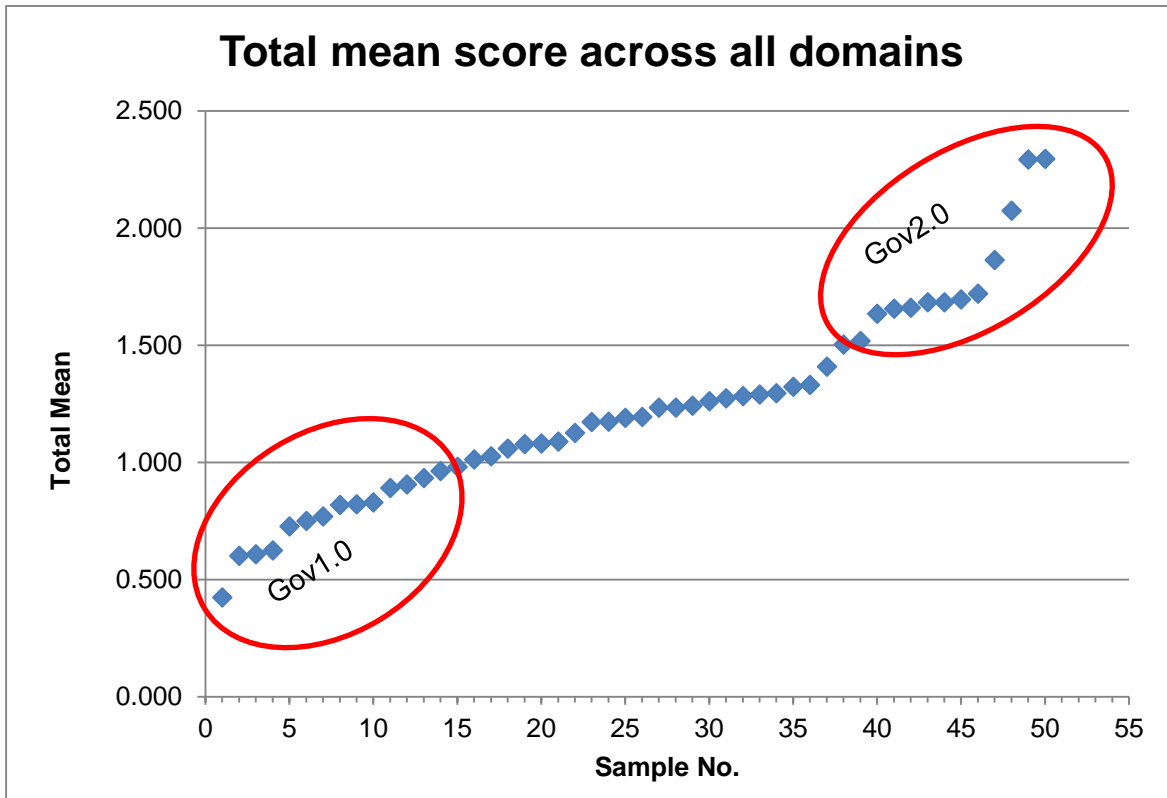


Figure 6.7 Total mean scores for all surveyed authorities, showing the split between Gov1.0 and Gov2.0

These councils offer less interaction within their residents via their web pages, as identified in Figure 6.7 above. While all of these may be said to be embracing some of the tools of the web, they are doing so within a Web1.0 paradigm; that is to say that they have adopted primarily a broadcast approach to interactions, and a “Council knows best” approach to service design and delivery. With regard to transparency, these authorities are doing the least, and in some cases are doing significantly less than is expected by Government.

6.5 Conclusions

The sample of web site functionality conducted in the summer of 2014, provides an evidence base for an assessment of the current state of the practice of Gov2.0 in English local government. The sample demonstrates that in a small number of authorities Gov2.0, as it is described across the literature and modelled in this thesis, is an established feature of practice. Beyond this, it can be established that the majority of sampled authorities are exhibiting some aspects of Gov2.0 practice, if not all. Finally the sample demonstrated that the number of authorities with minimal functionality, the identified Gov1.0 is also a comparatively small grouping. These findings support the work of Ellison and Hardey (2013), who reviewed the adoption and use of social media by English local authorities. Their study, which was conducted in 2011, determined that authorities made varying use of social media for democratic deliberation and participation. Social engagement through social media is only one facet of the wider notion of Gov2.0, the findings of this analysis demonstrate that the “...reciprocal, many-to-many forms of communication” (Ellison & Hardey, 2012, p. 893) associated with Web2.0 are still present and are being supplemented by the wider functionality of Gov2.0.

There are authorities at the extremes of provision of Gov2.0 services, such as Redbridge and Kent at one end of the scale, and at the other Walsall and Wigan. The sample has therefore identified a large number of authorities who make use of some of the tools of Gov2.0, but not all, and not in a consistent manner. The reasons for this disparate approach, whether the adoption of specific areas of functionality is a reaction to a specific local pressure or is the result of local interest in a specific technology are not addressed by this study. Developing an

understanding of the perceptions of the subject held by practitioners will help in determining the reasons for this variation in application.

CHAPTER SEVEN: Q-METHODOLOGY STUDY OF LOCAL AUTHORITY OFFICERS

7.1 Introduction

This chapter presents the identification of shared subjective understandings of Gov2.0 held by practitioners in English local authorities, identified through the use of Q-methodology. These shared subjectives are known in Q as factors, and are conceptualised as frames of reference (Schön & Rein, 1994) that describe the shared understanding and constructions of Gov2.0 among practitioners. This chapter investigates whether commonly agreed constructions exist, and if so, whether they hold sway within the practitioner community; or are constructions of the subject disparate and not yet shared or negotiated to a point of common agreement. The adoption of all or part of Gov2.0 as an organisational paradigm requires a large element of change, as did the shift to New Public Management. Brunier (2005) argues that the process of political adoption of change is a struggle for meaning capture, with groups struggling to “*establish their particular constructions of reality as definitive*” (Burnier, 2005, p. 517).

This chapter focuses upon the results generated from the application of the Q-methodology study, and what these may mean in the context of the research questions previously posed. The use of Q-methodology in this study is not to attempt to define a causal relationship; rather it is to identify the commonalities of constructed subjective realities with respect to the question at hand through the

statement stimuli presented. The use of Q-methodology is not intended to establish a scientific relationship between X and Y; rather it is intended to allow the exploration of how the ideas inherent in the subject of study, in this case Gov2.0, are understood by individuals. These results can then be considered in relation to the previously discussed results of the content analysis. In keeping with the research design, these two elements of the empirical research are reviewed separately, and synthesised in the conclusion.

7.2 Analysis method

The analysis of results arising from a Q-methodology study involves a number of stages, these include the initial factor identification and rotation of factors to “*maximise the purity of saturation*” (McKeown & Thomas, 1988, p. 52) of the factor, that is to maximise its distinctiveness and include as many individual sorts as possible. Following the identification and rotation of factors to deliver clear and minimally ambiguous viewpoints the narrative painted by the identified factors is developed through the application of abductive logic (Watts & Stenner, 2012).

Analysis of the results obtained by Q-methodology leads to the identification and understanding of shared subjectives, which in this study are conceptualised as frames of reference. Stephenson, the ‘father’ of Q-method, said that the basic law of Q-methodology is the “*transformation of subjective events into operant factor structure*” (McKeown & Thomas, 1988, p. 46). This is the identification of individual subjective opinions and grouping these into operable and working

definitions of understanding through the correlation of individual's viewpoints. Therefore, before these factors are conceptualised as frames of reference, it is valuable to briefly discuss what is meant by factors and how they are identified. This process of identification lies an element of controversy within the Q community, between the use of centroid factor analysis and principal component analysis. It is suggested, notably by Brown (1980), that only centroid, as used by Stephenson, is an acceptable method, while principal component analysis (PCA) a more mathematically 'correct' method (Watts & Stenner, 2012) which came into use only after the availability of the computer and after Stephenson had formulated Q-methodology is considered less suitable. Watts and Stenner, argue that PCA is not a factor analysis, and the results are not truly factors (Watts & Stenner, 2012). The arguments in favour of the use of centroid analysis state that as well as being pure to Stephenson's original method, its lack of mathematical precision is a strength as it encourages a more interpretative stance toward the data; while those who favour PCA argue that its mathematical benefits allow a more solid identification of areas of commonality upon which analysis may be built. While analysis has been conducted using the PCA approach (see for example Burkholder & Janson 2013 and Baptiste 2011), and the option is available in popular analysis tools, this study has retained Stephenson's original design and completed the analysis using centroid factor analysis.

Q-methodology provides a form of analysis, where the findings may be described as "naturalistic" and observed behaviour, as opposed to Popper's notion of objective science (Field & Hole, 2003). Following the analysis of the results of the

Q-methodology study, generalisable claims that x% of the population think in a specific manner about Gov2.0 will not be made, nor will causal statements such as all officers think Gov2.0 is the solution to all local government's problems because they are council employees. Rather Q-methodology provides a rich and interpretive narrative of some of the constructions of the subject among the group studied. By limiting the factors interpreted we limit the variety of viewpoints that can be exposed. Each Q-sort reveals a subtly different viewpoint, unless it correlates to another at a perfect level of 1.0; however it is neither practical nor desirable to analyse every possible permutation of view. By correlating the diverse views into factors of opinion, and recognising that within a factor there lies a range of opinions, we can demonstrate and understand how an issue may be viewed and consequently what behaviour toward the subject of enquiry, in this case Gov2.0, may be expected.

7.3 Results

The study elicited responses from a broad range of participants, inviting them to use a web based survey tool. The results of these responses generated five initial potential factors, or viewpoints that upon further investigation were reduced to four. The fifth factor, while initially appearing viable, in terms of the application of Humphrey's Rule¹⁴, eigenvalue and having more than one defining sort, proved

¹⁴ ¹⁴ Significance in the Humphrey's Rule is taken to be "*the cross-product of its two highest loadings (ignoring the sign) exceeds twice the standard error*" (Watts & Stenner, 2012, p. 107). The formula for calculating the standard error is $1/\sqrt{\text{No of statements in the Q Sample}}$ which provides a standard error of 0.1561. Therefore a strict interpretation would look for results greater than 0.3122, while an acceptable result would be anything greater than 0.157.

upon analysis not to present a coherent viewpoint and was consequently discarded. The objective criteria detailed in table 7.1 provide a guide to the acceptability of factors, not a rule (Watts & Stenner, 2012). The objective assessment acts as a guide which can be read in conjunction with the narrative of the data, if there is no coherent narrative there is no viewpoint. In this case that has led to the discarding of one factor. The details of the initially identified factors are shown in table 7.1 below. These factors provide an initial understating of how the subject of Gov2.0 is regarded by the professional community in English local government. Overall the factors explain 53% (56% including the discarded fifth frame) of the variation in the sample.

Table 7.1 - Initial set of factors (frames)

	1	2	3	4	5
% Explained Variance	38	7	5	3	3
Defining Sorts	12	5	8	5	2
Eigenvalue	19.67	3.83	2.51	1.78	1.72
Humphrey's Rule	0.5992	0.2555	0.2188	0.1526	0.1405

The Q-methodology study generated four viable factors or viewpoints of shared subjectivity for detailed analysis. These four viewpoints are analysed as frames of reference and demonstrate the diversity of constructions that are shared among

practitioners within local government. The four constructed frames draw upon ideas contained in the literature and promoted by advocacy groups. This demonstrates how individuals are sense making from the messages that they receive around the subject to develop their own interpretations, from which policy deliberations can begin. The frames that are identified must be culturally resonant to others within the sector (Benford & Snow, 2000). The full factor array is shown in appendix 10.

The factors, or frames as they will be referred to here on after which are outlined in table 7.2 provide the evidential base for the generating a response to the second research question of how is Gov2.0 understood by elected and employed practitioners in English local authorities? This will demonstrate the level of contestation within the sample, and whether this contestation is influenced by party or employment or by individual notion of how change could or should manifest itself.

Table 7.2 Outline of the frames (Barrance, 2015)

Frame	Description of Gov2.0 Frame
1) Sunlight on Government	Frame one is focused on a construction of local government which is open to the public, allowing service user involvement and valuing public accountability. The frame is not strongly influenced by ideas of service delivery choice or platform government.

<p>2) Cautious Crowdsourcer</p>	<p>Frame two accepts the potential for reform that platform provision may deliver, but is cautious towards collaboration with the public. The frame identifies the complexity of information and how this can be easily misinterpreted. The frame recognises that the risk of the original meaning being lost undermines the aims of transparency and accountability.</p>
<p>3) Gov1.0</p>	<p>Frame three seeks to defend the established relationship between local government and citizen, rather than seeking to adopt a crowdsourced model. The frame values the status quo, including supporting the delegated powers that are given to officers. Transparency for its own sake is not highly valued, nor is the potential role of the authority as a platform for third party service provision.</p>
<p>4) Platform Providers</p>	<p>Frame four focuses on platform provision of services, rather than accountability. This frame identifies choice, including market provision, as a route to improvement in service delivery. This frame also sees the wider public predominantly self-interested and focused on service delivery rather than more complex questions of wider policy or strategy.</p>

7.3.1 Frame one - Sunlight on Government

"I am a great believer in the wisdom of crowds. "Experts" may well know everything about nothing, but I want a balanced result arrived at by harvesting the views of a lot of people, all of whom know something about something."

(Elected Member, a District Council).

The individuals whose opinions defined the Sunlight on Government frame had a mean age of 49.5, and were split between male (58%) and female (42%). The frame included both elected members (58%), including cabinet members and ward representatives drawn from all main political parties, and employees (42%) including managers and a chief executive. Frame one was a diverse group of individuals without any common defining characteristics, other than their membership of this frame.

The focus of the frame is upon the potential benefits that improvements in transparency, accountability and public participation may bring. While strongly valuing public participation; they value "hard" data over subjective opinion. They take a view that people are interested in the whole of the policy process, not only the direct and personal service implications.

The Sunlight on Government's view is strongly positive regarding the interest that the citizen may have in the policy decision making process, as opposed to a view of the citizen as being only interested in the delivery of services that affects them.

Frame one holds a positive view of public engagement in the wider direction setting. This point was made by one of the respondents who produced a defining sort in frame one:

“...good decisions are certainly not limited to those who are experts and paid to do so.” (Employee, a London Borough).

The frame’s viewpoint on Gov2.0 is defined by its strong loadings on public participation, accountability and the role of social collaboration in the pursuit of these ends. The frame makes strong positive references to the possibilities offered by the participative and transparency elements of Gov2.0. The Sunlight on Government frame holds the view that data is of a greater importance than opinion, whether it be from an expert or a resident. When confronted by opinion, the frame will not necessarily privilege expert opinion over those of the citizen. The frame feels that the public have something new to add to the process and provide a valuable insight. (7:-3¹⁵). In this sense the frame can be seen to agree with Foucault’s (1980) comments about subjugated knowledge, identifying that expert knowledge is often privileged over the unofficial voices of the public.

The frame recognises the opportunities for the incorporation of the wider public into the decision making process (27:4), and is consistent in the view that the residents can make positive and valuable contributions to the decision making

¹⁵ The reporting of the results of the Q methodology study uses the standard approach to identifying the statement, and the ranking given to this statement by the factor. This is shown in brackets, for example (18:-4)

process (18:-4, 7:-3), however this frame retains some concerns regarding the rationality of “strangers”. Statement 12 (+2), suggests that the viewpoint is slightly drawn to the idea of a crowdsourced view, an opinion derived from large groups of comparative non-experts, as opposed to a small groups of appointed experts.

Taken together this forms a coherent viewpoint for the Sunlight on Government frame that is positive about the opening up of the policy and decision making process, and which values forms of social collaboration as a means of achieving this. The frame has an optimistic outlook towards the involvement of the public and believes that given the opportunity, people will be involved and take an interest in the development of council policy, not only in direct service decisions. This desire to work with and involve the public is underpinned by a strong belief in accountability, and transparency of information. The view of the frame in this regard could be said to be one that sees the public as partners in the process of governing, and where they are not involved in the decision making process, they are able to see what has been done and why.

7.3.2 Frame two – Cautious Crowdsourcer

Individuals who defined the Cautious Crowdsourcer frame had a mean age of 43.2 years. 80% of the participants were female, 20% male. Participants in this frame included only one elected member, who is a Deputy Leader of her county council. Officers were ranging in position from senior manager to employee.

The Cautious Crowdsourcer's responses to questions regarding their understanding and familiarity with Gov2.0 are the lowest of all of the frames. Members of this frame are likely to work for an organisation that has not engaged in detail with Gov2.0, evidenced by their low level of agreement to the question regarding the implications of Gov2.0 to their authority. While not directly negative to the ideas encapsulated in Gov2.0, they are very cautious.

When looking at the detail of Gov2.0, the frame is clearly more familiar with these concepts, and scores the idea of public participation strongly, although this is skewed towards questions of service delivery rather than policy direction, suggestive that the frame is supportive of the co-production of services, but less so of co-decision on areas of strategic direction. The frame is ambivalent to the idea of developing applications that make use of council data to further citizen involvement or external development of open data based services.

The frame is strongly in favour (0.75) of the idea that their authority would consider wider public participation in decision making, however beyond this scepticism and caution are a strongly defining features of the frame.

“Technology can be a force for good - better and easier access to people and services - and for bad - loss of data, too quick to reply etc. - and so we have to be careful how we use it. Ultimately it's not going away so we need to make GOOD use of it.” (Deputy Leader of a County Council).

In this statement, which is typical of Cautious Crowdsourcers, the Deputy Leader identifies the beneficial possibilities inherent in the use of technology and transparency, and simultaneously expresses caution that use must be careful and avoid what she perceives as negative outcomes such as data loss (a concept that assumes that data must be controlled and protected, she does not elaborate if this refers only to personal data or all data), and hurried responses. That the deputy leader identifies that the authority may respond “too quickly”, suggests responses, should be considered, a position in direct contrast to the popular expectation of electronic forms of communication. This may be assumed to relate to the need to control the message, and a consequential need for control over the messenger. This building in of a delay to responses runs counter to the propositions contained in Gov2.0 of openness, transparency and of a peer to peer relationship between the authority and citizens. The message of delay contains a realistic political assessment of the desire of politicians to control and manage messages issued.

Cautious Crowdsourcers are not seeking radical change regarding the availability of information to the public, but recognise that public demands for information have been changed by the wider contextual changes brought about by the Internet. The strong support that this viewpoint gives to the importance of contextualisation of data shows that members of this frame feel that the data is to be respected and not miss-interpreted, and again that the message contained within the data should be managed. This idea that local government information is not public property, but the property of the local authority and is shared with the public is shown strongly in statements 21 (-2), 3 (-4) and 34 (-4). The frame is

happy that the public shares the information, and indeed that the public has a right to information, however displays its cautious side in that it does not feel that the public has an unfettered right to information, or that public re-interpretation of information should be encouraged. The agreement that the existing legislative structures, as well as the specific access to information provisions in planning and other regulations are adequate for public information needs, and importantly present a balance between the right to privacy and information.

“Whilst most data and information should be available to all there are many circumstances where such data is rightly not made public for various legal and personal protection reasons.” (Manager, a London Borough Council).

The Cautious Crowdsourcer presents more defensive views regarding the availability and sharing of information; the frame demonstrates that it sees the world as one where local government should be working with people and engaging them in new ways of providing services; and working with the public in designing and delivering these in new, technological and non-traditional methods. But that at the same time the member of the frame want to work with people, it is cautious of individual rationality and how information could be misused. A cautious, or perhaps realistic, optimism may be said to be behind the Cautious Crowdsourcer’s viewpoint.

7.3.3 Frame three – Gov1.0

The average age of participants in the Gov1.0 frame is 36, the youngest average age amongst the four frames. The frame is composed of male (62.5%) and female (37.5%), and is composed exclusively of officers. The typical member of the Gov1.0 frame is a young, professional, council officer. They see the role of the council as being the decision making body, and while they see benefits from increasing the levels of transparency and thus accountability, and in co-produced services and decisions regarding service delivery, they retain a cautious outlook on the role of the public in policy making decisions. The Gov1.0 frame sees the relationship with the public as one of collaboration between an interested public and the separate local state, with the local state retaining its primary role as the decision making body. The participants who comprise this frame showed a high degree of recognition and understanding for Gov2.0. While the participants showed a high level of understanding of the concept, they reported a lower level of understanding of the implications of Gov2.0.

Gov1.0's results showed a slightly positive outlook towards the growth of transparency and the use of social media, however this frame reported negatively towards the growth of participation in decision making, in particular regarding decision making in areas of policy direction not just service delivery (0.28). The frame is interested to allow a public debate on areas of policy, and rates the idea of encouraging the public debate through the tools of Web2.0 as slightly positive (0.58).

The viewpoint expressed by the Gov1.0 frame is one which seeks to defend the

role of the established order rather than seeking to shift towards a participative or direct democracy model. The view expressed is one of work with the public, through the established administrative structures (17:-4, 39:-2). The frame does not see transparency as a driver of change. The frame is notable for its strength of feeling towards the importance of officer discretion as part of the process of local administration, which is summed up in the quote:

“... Officer discretion is designed to operate within a framework set down by politicians (through law or otherwise). Officer discretion allows the small decisions to be taken and services to be delivered whilst allowing proper decisions to be taken by the public (through their representatives). Delegation is an important function, even in the most democratic societies.” (Manager, a London Borough Council).

The outlook expressed by the Gov1.0 frame also felt the most strongly negative of all frames to the ability of individuals to procure their own services, rather than simply receive centrally determined providers (8:-3). A view articulated by a Unitary Council Manager:

“There should be protection for the most vulnerable in society that they will get equal access to decent services - this can only really be achieved through commissioning or delivery by a corporate body such as a council.”

This frame is not seeking to dismiss the public, and ranks highly statement 16

most strongly agreeing with the idea of collaboration, rather than delegation. However statement 27, which speaks strongly of the incorporation of public participation into decision making scored as +1. This may also be seen as another element of the defence of the status quo regarding the primacy of the representative democracy and supporting the role of officers (14:-4, 17:-4, 18:-2). This support for the role of officers in the process may be driven by the frame's officer dominated composition.

The desire to retain a professional input may be deemed necessary in part due to the frame's distrust of strangers to behave rationally (4:-3). This is a requirement if you are to either believe in the wisdom of crowds to resolve policy problems, or the ability of the public to procure their own services, for either of these notions of Gov2.0 to work, there must be trust that others will act in a reasonable, or at least rationally self-interested manner.

It may be fair to say that the frame is cautious of change that may risk individuals either not receiving the services that they should get, or of mistakes in the release of information. The Gov1.0 frame agrees that change is required (38:-3), but is the most cautious of all the frames identified. The caution that is expressed by this frame, which is composed exclusively of employees, may in part be an expression of self-interest related to the reductions in local authority workforces following introduction of national austerity and the financial climate in local government which has led to a large number of job losses.

7.2.4 Frame four – Platform Providers

Platform Provider is the defining sort for 5 individuals, 4 of the 5 of which are Conservative elected members. The average age of the frame was 61, and was exclusively male, and exclusively composed of elected members. The frame's understanding of the concept of Gov2.0 was very low, at 0.31, while the frame's awareness of the implication was even lower at 0.16. This suggests that the frame is the least involved in projects, or councils that are working to deliver Gov2.0 solutions or changes. This is interesting given frame four's interest in the use of public participation in decision making (0.68). This suggests that frame four members are not used to the term Gov2.0, but that some of the tools of Gov2.0 are being introduced in their authorities, or that the frame appeals to them on a political level. That the frame may support the use of increased public participation is interesting in the context of the Platform Provider's view that the public are not looking to engage in wider policy decisions. The implication being that the frame believes that the public will be interested in participation for service related decisions, presumably services that relate to their direct requirements and needs.

“It's my experience apart from politically motivated people the rest of society are mostly not interested in what goes on unless it directly affects them. In other words they are too busy getting on with day to day living and selfishness is the nature of the beast.” (Liberal Democrat Cabinet Member, a District Council).

This member of the frame characterises interest and participation based upon an

individual's needs, interests and relevant experiences as selfish, suggesting that there is a view that for participation to be valid, it should be based in impartiality and that engagement should be a general process across a broad swath of council activities, not targeted or occasional. Platform Providers can be seen to spurn the idea of adhoc participation. The notion of adhoc participation, that individuals will temporarily self-organise and dip in and out of the political and policy process as they feel appropriate is an anathema to this frame. The frame identifies the role of the political party as being the primary way not simply of politically organising, but of connecting and messaging with the public.

Platform Providers favour data based facts over citizen opinions, but only by a relatively small margin. This is a conceptualisation of citizens' views as less valuable than "objective" facts provided by experts, which can be contextualised with the frame's view that citizen participation is more likely to be focused on direct service areas and individuals immediate needs. The frame is not against the idea of citizen generated applications or services, and would anticipate that if citizens are going to be involved at all, it is in this area of direct delivery.

The frame disagreed with the idea that opening the design and delivery of services to residents themselves will lead to unfairness, and that relaxing the centrally organised provision of services will lead only to services being provided to residents who have the skills to successfully engage. This fear of unfairness and of poor provision for those least able to either understand or manage their own needs has been behind some of the criticism of the personalisation of service

provision in areas such as Children's and Adult's services, an argument that is characterised by the Social Market Foundation (Simon, 2009) as being a shift from paternalism to empowerment, and by some of its opponents as being bad for the provision of service and bad for the providers of the services (Glasby, 2011). It was commented that:

“Local government is not necessarily the best provider of some services” (Chair of Planning Committee, District Council)

The frame is supportive of the ability of the public to make decisions (18:-4), although not necessarily to act rationally (4:-3). This acceptance that decisions made, in particular regarding service procurement may not be rational, but is the users prerogative speaks of a strongly classical-liberal approach. These elements of trust in the market to deliver fair service packages, in residents acting in a self-interested manner to determine their own needs and solutions and a focus on the direct service delivery rather than wider policy which can be organised through the traditional political party combine to form a proxy for wider ideas of platform government.

7.3 The frames understanding of Gov2.0

Constructions and understanding of Gov2.0 were investigated through the use of Q-methodology, which was used to provide an insight into the opinions and perceptions held by local authority practitioners. This study, which conceptualises

the results through the use of frame analysis, identifies four discrete and plausible frames which focus their interest upon separate aspects of Gov2.0. The study also used the opportunity to probe the understanding and recognition that the sample had with the concept and components of Gov2.0, shown in table 7.3 below. This demonstrated that in two of the frames there was a good level of familiarity with the concept of Gov2.0, and that with those who were familiar between a third and a half understood the implications for their authority of Gov2.0.

Table 7.3 - Frame of reference understanding of the subject

Frame	<i>% agree with the statement:</i>	
	<i>I understand the concept of Gov2.0</i>	<i>I am aware of the implications for the authority that I work in arising from Gov2.0</i>
Sunlight on Government	50%	37%
Cautious Crowdsourcers	17%	17%
Gov1.0	64%	49%
Platform Providers	31%	16%

Given the evolving and developing nature of the topic these figures, which come from a small sample base that is not claiming to be generalizable to the whole of local government, does give an indication that there is recognition within the local government community. The consideration that each of the frames gave to the subject and its implications provides an indication that for the frame most critical of

Gov2.0, the Gov1.0 frame, their self-proclaimed understanding of the subject is the strongest, followed by the frame which favours transparency, the Sunlight on Government frame.

7.4 Conclusions

The Q-methodology study builds upon a discourse that comprises the volume of discussion that surrounds the core notion (Jeffares, 2014). This discourse represents the breadth of the articulated debate on the subject of Gov2.0. These communications are received and processed by practitioners, who are represented in the P-set. The operant subjectivity of the participants does not offer an insight into normative notions of what is good or bad, rather providing the subject's views of "*what is and what to do*" (Schmidt, 2008, p. 306). The research model therefore provides a demonstration of how these common messages can be subject to the creation of multiple realities (Berger & Luckman, 1991), which are conceptualised as frames of reference.

The study provides a confirmation of how the ideas of Gov2.0 that are proposed in the literature, are being developed into competing discourses by those engaged in local government, going some way to filling the gap identified in the literature regarding evidence of the views of local government officers and members. The study identified four frames of reference within the practitioner sample. These frames conceptualise Gov2.0 very differently. The Sunlight on Government is focused on transparency, accountability and allowing service user involvement. The frame is not strongly influenced by the libertarian-paternalist notions of service

delivery choice embodied in platform government. The Cautious Crowdsourcer frame accepts the potential for reform that Gov2.0 offers, but is cautious about the impact of collaboration. This frame identifies the complexity of information and the risk of this being misinterpreted, and so undermining the aims of transparency and accountability. Gov1.0 seeks to defend the established relationship between local government and citizen, including supporting the delegated powers that are given to officers. Transparency for its own sake is not highly valued, nor is the potential role of authority as a platform for third party service provision. Finally, the Platform Provider frame focuses on the delivery of services, rather than accountability. This frame identifies choice, including market provision, as a route to improvement in service delivery. The Platform Provider frame views the wider public as being predominantly self-interested and focused on service delivery rather than more complex questions of policy or strategy (Barrance, 2015). The results of the Q-method study demonstrate the dynamic process of constructing norms in an area that is demonstrably new and emerging.

Authors such as Waugh, O'Reilly, Noveck, Fung and Eggert who favour of the adoption of Gov2.0 make a case which is rooted in democratic and institutional renewal. This case is by no means proven, but the ideas which sit behind it are understood by practitioners, and multiple frames for interpreting the potential changes can be identified. These competing frames point the way towards multiple local implementation of changes inspired by the concepts of Gov2.0.

The final chapter of this thesis provides a synthesis of the two studies to provide

an analysis of Gov2.0 as it is understood and implemented by practitioners in English local government.

CHAPTER EIGHT: CONCLUSIONS

8.1 Introduction

This final and concluding chapter is presented in three parts. The chapter presents a synthesis of the arguments and evidence presented to develop responses to the research questions. The chapter presents the contributions of this thesis to this emerging body of academic knowledge. Finally, the chapter offers a set of reflections upon the experience of writing a PhD study part time, offering some personal thoughts on the research process.

The results detailed and conclusions drawn in this thesis are intended to be understood and considered as separate pieces of evidence relating to the understanding and use of Gov2.0 in English local authorities. These pieces of evidence are not intended to be considered together or directly correlated. The research methods and data sets are not directly compatible. Consequently it is neither possible nor desirable to integrate these two pieces of research into a single holistic picture of local authorities' response to the potentially disruptive challenge of Gov2.0.

8.2 Understanding and modelling Gov2.0

The thesis investigated the question of how local councils make use of second generation Internet technologies, reviewing how Gov2.0 has been implemented in

English local authorities, and how practitioners understand and frame the issues.

The introductory chapters mapped and analysed the development of the debate surrounding e-government from the initial push for e-government as a replacement for the traditional paper memory systems of filing cabinets and ledgers with an organisation wide computer database memory, coupled to the shift in orthodoxy from traditional public administration to the NPM paradigm of managerialism and marketization in the 1990s and 2000's (Dunleavy, et al., 2006). New Public Management drew inspiration from the model of private enterprise, with its emphasis on the role of the market, of public choice, efficiency and performance management. NPM defined the relationship between the local authority and its residents as a quasi-commercial one, where questions focused upon value for money and acceptable performance (Stoker, 2004). This orthodoxy is now, it is argued, at the point of challenge by a new set of ideas that are again drawn from the commercial world. The Internet, in particular the social connectivity, platform provision of services and transparency represented by Web2.0 (Cormode & Krishnamurthy, 2008; O'Reilly, 2005), articulated in the government context as Gov2.0, is described as the "*largest experiment involving anarchy in history*" and "*the world's largest ungoverned space*" (Schmidt & Cohen, 2014, p. 3).

This study reviewed the literature and arguments presented around the emerging and developing subject of Gov2.0, and identified four master frames. The expression 'Gov2.0' within the literature is a generic term for the use of Internet based technologies intended to deliver transparent access to information,

democratic participation directly and through social media and online services including those developed by third parties using council data as a resource that is hosted by the local authority. Within the various descriptions included in the broader canon of e-government literature, Gov2.0 encompasses the idea of open data and so-called big data. It is important to note that Gov2.0 is not simply a conversation regarding the technology, important as the enabling technology is; rather to its proponents it is a paradigm shift as significant and far-reaching as the adoption of New Public Management.

Gov2.0 is presented as a post-modern construction where the role of technology is to develop the depth and complexity of relationships between residents and their local authorities that embrace a multiplicity of voices, truths and the state of paralogy. The argument proposed by Lyotard (2004) in favour of the adoption of computerization, and the access to and transparency of information, which constitutes a central narrative in the argument in favour of Gov2.0 is that *"...it could aid groups discussing metaprescriptives by supplying them with information they usually lack for making knowledgeable decisions"* (Lyotard, 2004, p. 67).

The theoretical condition described by the model of Gov2.0, developed in this study, informed by the work of Miller & Fox (2007), Farmer (2005) and Lyotard (2004), questions the traditional organisational constructs and their relationships to the public. This thesis has identified that the dissemination and gathering of knowledge, including the previously subjugated knowledge of non-experts (Foucault, 1980), offers the potential for informed public involvement in decision

making. This use of knowledge in the refinement of legitimacy and the acceptance of multiple, rather than singular truths and narratives defines Lyotard's postmodern condition (Brüger, 2001), and Gov2.0. The adoption of the tricorn model of Gov2.0 allows the local authorities to respond to this by offering choice in provision through the platform, and to manage the competing desires expressed through social engagement and participation by not closing the door to future developments, rather by signalling the centrality of consultative discourse, and the openness of previous decisions to future review (Farmer, 2005). The role of the local authority within this model is to articulate this state of constant flux and of debate into a coherent, if temporary, policy position. The authority becomes accepting of the state of paralogy, rather than of consensus, and thus of the temporary nature of decisions in the light of the continuing popular debate and discussion.

Lyotard identifies that the control of knowledge and information leads to the development of the grand narrative. As subjugated, naïve, knowledge is accepted into the policy arena and given the same status as that of established professional technical knowledge, so the idea of a singular narrative becomes unsupportable. The model of Gov2.0 that is presented here provides the components to enable a virtuous circle of information transparency informing many-to-many social engagements which in turn are organisationally accepted as part of the policy discourse and the eventual re-use of information by citizens and others to develop new services. The model presented, contains the interlocking components of transparency, platform provision of services and social engagement.

This model, developed and discussed fully in chapter three, forms the basis of the enquiry into the practices and perceptions of the subject. The model, which provides a reference point for future research and a clear definition of Gov2.0, is premised upon an understanding of Gov2.0 not as a singular and indivisible topic; rather as a construction, a bricolage (Kincheloe, 2001) blending of connected and dependent ideas that lead to a specific set of practices. The practices that this thesis has demonstrated exist, are also shown to be subject to ongoing debate and development within the local government community.

The model defined in chapter three was then developed through the analysis of practices within each domain identified in the literature. These areas of functionality form the basis of the website content analysis which is discussed in chapter six. The descriptions of functionality that form the practice of Gov2.0 provide a detailed description of the delivery of Gov2.0 to the public, and demonstrate how the domains identify the functionalities as interconnected and dependent. The functionalities identified are not new, and do not require local authorities to invest in the development of new services, or the generation of new data, rather as chapter four demonstrates, Gov2.0 requires the opening and sharing of existing practices with residents.

8.3 Response to the research questions

The research questions posed at the start of this thesis questioned the practice

and understanding of Gov2.0 in English local government and the implications of this.

8.3.1 Q1. To what extent is Gov2.0 an observable aspect of English local authority practice?

This first question addressed the concern that Gov2.0 is a figment of the literary imagination and that it is not rooted in the reality of local authority practice or delivery. Gov2.0 may be considered as being on one hand the next step of the technological development of e-government where its impact is limited to technological advances; on the other, and following the example of Web2.0, as offering a disruptive alternative to the traditional hierarchy and relationship models between local authorities and residents. Gov2.0 has been identified as a composition of elements which combine to offer a new and holistic approach to the relationship between state and resident, that offers an inclusive, transparent democracy and a route for the enhancement of public involvement in the processes of decision making, and finally that allows the councils to develop and offer services in new ways. The evidence collected points to the fact that Gov2.0 is more than unsubstantiated opinion, and is a visible and genuine part of the delivery of e-government by English local authorities. The implementation of Gov2.0 is still in the hands of the early-adopters (Jeffares, 2014), and cannot yet be said to have reached the mainstream of local authorities. These early adopters are authorities who are not simply adopting the technology but are using it to reconstruct their relationship with residents, at least to some degree. It would be

wrong to say that these authorities have reinvented local government, rather they are making use of the technology to evolve it and to offer new interactions for the public and to open their services and their information up in new ways.

The functionality found to be offered by English local authorities included a number of developments such as the development of transparency beyond the publication of an individual piece of data into the publication of all data, and placing this within a single data repository, and subsequently engagement with the concepts of big-data and encouraging civic hackers to use that data. It included moving beyond the occasional and issue specific questionnaire consultation and into a set of open dialogues about a range of service and policy issues, where the communication is bi-directional and continuous, not mono-directional and occasional. It included making communications more open and transparent, such as the publication of Freedom of Information Act enquiries and replies, and having open social media conversations regarding services and policy matters. This revised form of communication, that is not the privilege of the communications department but that is part of the culture of the organisation brings access to the wisdom locked in a diverse population (Surowiecki, 2011). Indeed, according to writers such as Noveck (2009) and Surowiecki (2011) it is the diversity of the population, and therefore of the opinion received by the authority that leads to better informed decision making.

In many ways the Gov2.0 local authority appears much as any other; it is, however, its behaviour regarding transparent, open and inclusive, many-to-many

communications and the provision of platforms for choice in service provision that mark it out. These councils exhibit a belief in the power of openness to deliver benefits that can't otherwise be arrived at, and a rejection of the introspective target dominated managerial culture that has dominated government at all tiers (Dunleavy, et al., 2006) and led to a search for a notion of a singular perfection. The Gov2.0 authority embraces and enhances difference of opinion and aspect. It presents an extrospective culture to residents, inviting them to be part of the process. Finally it is transparent and encourages a diverse set of accountabilities.

8.3.2 Q2. How is Gov2.0 understood by elected and employed practitioners in English local authorities?

Practitioners in local authorities were found to have a mixed set of views and outlooks on the subject. These individual, subjective outlooks are understood as frames of reference (Schön & Rein, 1994; Goffman, 1974), revealed through the use of Q-methodology. This analysis, which revealed four distinct frames, demonstrates that practitioners do not have a singular view or opinion of Gov2.0. It is not characterised simply as, for example, transparency = good; platform = bad. The range of subjective opinion is nuanced, and the frames identified are shared in authorities separated geographically and politically.

The Sunlight on Government Frame, which focuses on aspects of transparency and rejected platform provision, is able to utilise the tools of transparency to provide this frame with the resources needed to demonstrate the workings of the

authority and to encourage public accountability. In particular the ability to interrogate line by line spending, contract agreements and details of members outside interests provides a way to crosscheck the authority for wrong-doing or impropriety. The Sunlight on Government frame valued information sources such as the open data warehouse that allows them to explore and analyse the information presented by the authority. The Sunlight's focused less on the tools of dissemination or sharing, rather it is upon the availability of data.

Turning to the Cautious Crowdsourcers, their focus was likely to be upon meeting the requirements of the government's transparency tool kit within their comfort zone of data release and information control. In practice this may mean that they would release information that they are obliged to, but do so in a closed format (for example PDF document) or place information on relevant service pages, rather than on a single transparency page or into a data warehouse. The Cautious Crowdsourcer while cautious with the release of contentious or possibly damaging data, were however, keen to make use of the social engagement tools available. As such they favoured the use of social media as a method of communicating and consulting with the public, the use of online petitions and tools for the co-design of services with residents. The Cautious Crowdsourcer looked to control and manage the process, but were strongly supportive of the ability of residents to actively engage with the authority.

The focus of the Gov1.0 frame was upon meeting the majority of the requirements of the government's transparency code, and providing their authority with a tightly

controlled social media presence. The Gov1.0 frame eschewed the areas of the government's code of transparency that they felt went "too far" and lead to the publication of information that may be damaging for the authority, or that may undermine it. Senior salaries were an area of particular contention since this information has the potential to generate significant detrimental media interest. The Gov1.0 frame saw the use of social media as a potentially positive communications tool, to be internally owned and managed exclusively by the communications service. This tool is likely to be viewed in much the same way as other areas of council publicity, as a channel for specific messages to the public, for promoting the activities of the authority and for providing specific pieces of information to the public; rather than bilateral information exchange between the authority and residents.

The fourth and final frame was the Platform Provider; this frame saw the functionality of Gov2.0 as a way of expanding the potential range of service providers available, and therefore weakening the traditional monopoly provision of services. The Platform Provider was making use of the market as a mechanism for the determining individual preferences for service delivery options. As such this frame focused upon the tools which provide the development community with the ability to generate new areas of service provision. These areas included the provision of a data warehouse with a working and freely available API. The frame would like a good range of service oriented data being provided free from licence conditions, and in an open format. The Platform Provider also favoured activities such as hack days and mash-up events that the local authority may organise to

make contact with the developer community and to seek new technological solutions to known problems.

The findings of the Q-study confirmed the emerging and contested nature of the topic. Gov2.0 has made an impact upon local authorities and is a recognised driver for change. The components of Gov2.0 and its essential challenge were recognised, and were subject to debates and questions of relative priority within authorities. The value of identifying these competing frames comes from the knowledge that they give us about the future development of the policy, and how this may in future become a politicised area. As the definition of the policy is contested, so the frames can be seen to vie with one another to become the default position for the sector. The perceptions of the subject drive the delivery of services to the public, so for those with an interest in the direction of this policy area, understanding the points of contestation is valuable.

Practitioners in local authorities were found to have well developed views and frame the use of Gov2.0 in a number of ways. These views, constructed within frames of comprehension and experience (Goffman, 1974) drive the development of frame reflective policy decisions. The Q-methodology study identified that there is an acceptance of change among practitioners in local authorities. It revealed that local government is seen as an ever evolving sector, and that the adoption and utilisation of the technologies associated with Gov2.0 is seen another step in this process of change and development. This acceptance of change may underplay the potentially disruptive changes that Gov2.0 could bring about, or may

be seen as a suffocation of these changes so that Gov2.0 rather than becoming a disruptive change becomes another facet of traditional public administration.

Beyond these direct implications there lies a broader implication for central government in the directing of local authorities to adopt policies, such as the direction issued in the 2014 Transparency Code. This thesis has identified that competing frames of reference will be held by practitioners, both employed and elected, and that competing frames of reference may exist within authorities, leading to contestation regarding the nature of policy implementation. This point is identified by Schoen and Rein (1994) in their case study of implementation of the IT system in the Massachusetts Institute of Technology. This case study demonstrated the impact that competing frames can have on the delivery of policy initiatives. Given the locally and individually constructed nature of local government, the impact upon the policy direction is likely to result in a failure or delay in delivering the intended outcomes. Government understanding of these frames of reference pertaining to policy directions prior to implementation is likely to result in an improved implementation approach.

8.3.3 Q3. *What are the implications for English local authorities from the adoption of Gov2.0?*

The implications of Gov2.0 for local authorities are twofold, one delivering the technical solutions and functionality via a web based interface. The second is a

deeper rooted revision of organisational expectations regarding the nature of the relationship with residents. The nature of the relationship is subject to contestation, the research revealed that authorities also need to manage internal divisions and disagreements over any implementation. The practice of Gov2.0 is one of devolved and shared responsibility between the local authority and residents. Devolution to local residents of the responsibility for the oversight of activities and expenditure, the opportunity to devise and utilise new services built on the back of publically open data, and a responsibility to take an active part in meaningful conversations where residents are treated not as outsiders to the process, but are integral to it are the hallmarks of Gov2.0 practice. Gov2.0 is a shared enterprise between the local authority and those it serves. The implications of this for the authority, officers and elected members are significant. A decision to move towards Gov2.0 will require not a simple adoption of technology but a revision in how the authority thinks about its relationship with its residents.

Gov2.0 demands an openness and transparency that hitherto has not been a common feature of local government's culture. The practices revealed by this research, varied in terms of the amount of interaction that is invited and the level of openness that was witnessed. Authority behaviour could be closed and hierarchical such as Wigan and Walsall where even access to basic financial transactions was by specific request, and communication and consultations were monologic. Where technology is used, it is to broadcast messages, rather than to invite discussion, and neither is the development of services from public data encouraged, nor is platform provision offered. Alternatively, at the other end of the

spectrum are authorities such as Surrey and Kent that are experimenting with greater openness through the development of information portals and inviting developers to use the information to develop new services. These authorities have developed open and inclusive consultation arrangements that show how citizen engagement has led to decisions being made and, recognising the power of the citizen expert, have opened up policy making and service design to become a shared process of authority-citizen co-design. The identified innovative authorities who are seeking to deliver Gov2.0 have used well tried and tested technologies; the innovation that they have demonstrated is in the intention and the manner the technology is utilised. Consequently, the thesis has been able to demonstrate that the tools of Gov2.0 have been used in the English context, and that the relationship between resident and authority need not be fixed.

The technological implication of the practice of Gov2.0 has been seen in the functionality of local authority websites, and the contested and emerging nature of the policy has been identified in the differing levels of functionality and delivery that were witnessed. The practice of Gov2.0 recorded was not one of a clear or uniform adoption across the sector; rather it is another example of the primacy of local self-expression (Wilson & Game, 2002) in local government. The basic functionality of Gov2.0 is not a restrictive or arbitrary shopping list, rather it is a set of behaviours available to be adopted and implemented. The practice of Gov2.0 is then seen in the implementation of these behaviours as witnessed through the published functionality of the website. Qualitative analysis conducted demonstrated the different strata of delivery across the spectrum, and how individual authorities

focused and prioritised along particular domains.

The research work conducted in this thesis has identified and categorised the functionalities of Gov2.0, as they are discussed in the literature and used in practice. These practices and the variation between their adoption and use have been reviewed and discussed. These results demonstrate that there are councils which have adopted, and made use of the technology to a greater degree than others. That the technology is available and implementable suggests that the reason for less adoption elsewhere is not a technological one, rather it is a human one. The decision to adopt, or not adopt is one that is made consciously rather than being forced upon organisations by the limitations of what can and cannot be done.

A significant implication for local authorities arising from Gov2.0 is the nature of the relationship between the authority and its residents. Gov2.0 calls for implementing a transparent and engaged relationship with residents, where non-personal information and data is published by default, where the information assets of the authority are seen as public property, not the exclusive property of the authority. Where public accountability is measured at the level of the individual and where engagement is a bi-directional process where the knowledge, experience and wisdom of the individual resident is valued and allowed to be incorporated into policy development.

Gov2.0 is not a mature feature of local governance, it is evolving and developing

theoretically and in practice, consequently there exists a lack of common or clear agreement over the nature of the authority-citizen relationship that should be embodied within Gov2.0 among practitioners. The implications of this contestation are that it will court controversy and division within authorities that look to implement it. Authorities such as Surrey, Redbridge and Kent have demonstrated what can be achieved, however these are innovative pioneers, and as demonstrated are outliers. The evidence developed in this thesis demonstrates that there are a number of clear and separate viewpoints, frames of reference, held regarding Gov2.0. These separate frames, which represent pre-dispositions and prejudices towards the subject (Scheff, 2010; Schön & Rein, 1994) demonstrate the range of opinion to be managed by those interested in the expansion, or otherwise, of Gov2.0. The individual decision-maker's frame will influence the preference of tools and toolset; but will not be the only determinant. For the individual local authority, the choice of tools to be adopted will, therefore, be the result of a set of negotiated decisions. The decision to adopt and implement Gov2.0 functionality is unlikely to be a conscious one made by a single individual, rather a set of informal group decisions emerging from a set of strategic positions, each influenced by the prevailing frame of reference. Factors such as the local practical realities and wider political negotiations, both between members and officers, will also play a part in the final shape of the solution.

8.4 The contribution of the thesis

This thesis offers three original contributions. A comprehensive model of Gov2.0;

an original application of postmodern public administrative theory to Gov2.0; and methodological innovation through the combined use of Q-methodology and content analysis.

8.4.1 Contribution 1 - Modelling Gov2.0

The first contribution that is claimed by this thesis is an improved understanding of Gov2.0. Gov2.0 is a term that has lacked a strong descriptive model and detailed understanding of how the subject is understood by practitioners. This thesis has addressed both of these deficiencies.

The development of a model of Gov2.0 that synthesises the complex and multiple descriptions and components described in the literature has been accomplished by making explicit the inter-relationships between the components discussed as disparate items in the literature. The descriptive model, which is described in detail in chapter three, contains three discrete, but interrelated concepts, that when brought together with the postmodern approach to public administration forms the delivery Gov2.0. These three concepts, social engagement, platform delivery and transparency, are all capable of being delivered separately. The model conceptualised this to demonstrate that local authorities only deliver Gov2.0 when the holistic logic and physical delivery is brought together as a whole with the intention of delivering a changed relationship between the authority and the resident.

As the model informed the understanding of the subject, so the empirical research has informed the understanding of its delivery and the perceptions held by practitioners. Research into these areas has been limited in the past. Some studies, such as Ellison and Hardey (2013) have explored specifics such as the use of social media; however investigations into the practitioners' subjective understandings of Gov2.0 have not previously been conducted. The results of the investigation found that Gov2.0 can be seen in the delivery of web based content by local authorities, and that four frames of reference describing the operant subjectivity of practitioners were for the first time identified, these being:

- Sunlight on Government
- Cautious Crowdsourcer
- Gov1.0
- Platform Provider

8.4.2 Contribution 2 – The application of postmodern public administrative theory to Gov2.0

The development of the theoretical model was driven by the understanding of the subject derived from the post-modernist writings of Millar & Fox (2007), Farmer (2005) and Lyotard (2004). The association between Gov2.0 and post-modernism is rarely discussed directly in the academic literature (Ramadhan, et al., 2011) and not at all in the professional. In making these direct associations, which are discussed in detail in chapter two, this thesis is making a new contribution to the

understanding of Gov2.0. Millar and Fox note the post-modern public administration accepts a malleable, discursive and negotiated way of decision making that is described by Lyotard's paralogy. The thesis has demonstrated that this is represented in the functionality and approach embedded in Web2.0, and so in Gov2.0, it is the notion of the perpetual beta and of the long tail of resident involvement.

Postmodern thought, is characterised by the disbelief in, and rejection of meta-narratives (Lyotard, 2004), the grand overarching stories and plans which define modernism. This translates as incredulity towards the privileged single response to a given problem, and an acceptance of the multiple smaller, local and potentially competing solutions. The harnessing of this diversity and multiplicity can be seen in the complex and far-reaching networks of individuals engaged in open-source software projects. These projects, such as the Linux operating system, that embrace the engagement and contributions of many individuals can be contrasted to the activities of the major software firms such as Microsoft that work over years to develop the next major products that are closed to local variation.

Within Gov2.0 this postmodern rejection of the singular metanarrative and embrace of the multiple and competing local responses has been witnessed in the privileging of social engagement. Social engagement is undertaken with the intention of building an active community, and is reinforced by the principle of openness and transparency. Lyotard describes this freeing and sharing of information as giving civic society the ability to flourish, the opening up of

information removes part of the asymmetry of power based on differential knowledge. This is reflected in the Web2.0 world as making the source code of the software available, and is a prerequisite to allowing the community to engage.

This thesis has shown how these postmodern principles are translated into practical actions and behaviours, and how the adoption of functional tools without this philosophical position will fail to deliver its intended results.

8.4.3 Contribution 3 - Methodological innovation

The research focused on two aspects of Gov2.0, the practice and practitioners' perceptions. Two methods were selected for this investigation, Q-methodology and content analysis. Q-methodology was identified for conducting the perception stage of the work, with the results then analysed with frame analysis to develop a set of frames which described the shared subjective outlooks of those working in the sector. Frame analysis was used as a way of defining and understanding the competing views of the subject that exist. Content analysis provided a method for reviewing the practice of Gov2.0. These two methods are rarely combined; therefore the use of these methods in partnership to develop a cohesive view of a subject represents a methodological contribution. The second set of contributions made by the thesis is in the area of methodology. The use of frame analysis to conceptualise the results of Q-method has only been applied in a small number of studies for example Kroesen & Bröer (2009), Stephenson (1992) and Brown & Taylor (1973), and the joint application of Q-method with content analysis is also

an irregular pairing. The thesis can therefore, claim that it has made significant methodological contributions.

The use of content analysis, which Elo and Kyngäs (2007) describe as a method for reliable and valid analysis of communications within specific contexts leading to the development of descriptive conceptual categorisation of the phenomena user investigation, allowed for the capture of this democratic communication flow. The development of descriptive categorisations allows a comparative analysis to the frame analysis of the Q-methodology investigation into the perceptions of the topic, thus developing a set of descriptive categorisations of the input and output to Gov2.0, making it possible to draw inferences between the two.

8.5 From rowing to steering, the impact of Gov2.0 on local democracy

The practices of Gov2.0 are seen and experienced through the delivery of web based functionality, supporting the conceptual behaviours that combine to deliver transparency and open government, participation through social engagement and the establishment of platform provision. These practices absorb and incorporate traditional e-government, but this moves beyond the traditional notions of e-government in the purpose and power of engagement, the breadth of consultation and the expected levels of transparency. E-government gives residents the tools to work with local government electronically, while Gov2.0 opens the door to a reinvention of local politics modelled upon an open, transparent authority that embraces resident empowerment and active citizenship (Newsom, 2014;

Townsend, 2013; Miller & Fox, 2007).

Local government in England is semi-autonomous; it is able to deliver local solutions and local interpretations of policies, according to the understood local need, priority and political will. The local interpretation and understanding of Gov2.0 was revealed by the functionality that are deployed and used. As an emerging and under defined term, Gov2.0 is found to be liable to local, individual meaning being developed. Local authorities are able to frame the delivery of Gov2.0 driven by their decision makers own frames of reference, so those authorities with Sunlight on Government influenced decision makers may be expected to highlight functionality that supports transparency.

The changes much vaunted by the champions of Gov2.0 are not technological innovations, rather they are cultural and social changes, akin to the shift from government to governance, or as described in Henman as going from "*from rowing to steering*" (Henman, 2004, p. 21). This change is not premised upon a leap of technology, the technology is clearly available. It is premised upon a leap of the imagination and a willingness to adopt new ways of working and embrace new relationships between organisations and individuals. This change is the vision articulated by Dunleavy et al. in the notion of Digital Era Governance, which is so closely associated with Gov2.0.

The research undertaken demonstrated the complexity of the picture and that local authorities were in the process of defining and constructing what the reality of

Gov2.0. This research confirms that the picture will not be a universal one, rather a vision of complexity and local definition of the process of negotiated local change. The adoption of change was again not a question of technical possibilities, but a human one of local priority preferences. Changes must be adopted and accepted by local authority practitioners. The history of change implementation in local government demonstrates that this can be a slow process that is influenced by wider, general, cultural forces (Farnham, et al., 2005). This study pointed to the identification of frames of reference that were found to exist among those responsible for decision making, implementation and policy setting that were supportive of the themes of Gov2.0 and to evidence the existence and implementation of functionality that was described as falling within the umbrella of Gov2.0.

The results of the two aspects of the research demonstrated that the adoption of the technologies of Gov2.0 is ahead of the adoption of the philosophies of Gov2.0. From a review of the behaviours of local authorities, one can see the regular use of social web technologies such as Twitter and Facebook, indeed Ellison and Hardey's 2011 research confirmed this to be the case; however exploration of their use suggested that for a number of authorities this is at a surface level only, that conversational tools were used for broadcast purposes. Much as traditional retailers such as Woolworth had a web presence prior to their demise, so a significant number of councils were seen to use the tools of the social web without adopting the thought patterns behind them.

The self-identified understanding of Gov2.0 among those frames most supportive of the subject was still quite low, with over half of respondents not feeling able to identify that they understood the concept or its consequences, leading to the conclusion that councils have unthinkingly reached for the technology without a full consideration of the rationale or opportunities offered. This suggested that Gov2.0 has been retro-fitted to the pre-existing relationships between citizen and state.

The adoption of technology without due consideration for its potential use in a system which is naturally monopolistic and without pressures of change from any competitor organisations is, perhaps, inherently slow, certainly that is the argument that has been made by the public choice school, (Niskanen ,1975). The force of change is from those authorities that have made the leap beyond the use of headline technologies to adopt the philosophy of openness, or social citizen engagement to harness unofficial local expertise and are allowing the development of new service offerings based on these things. Those councils, such as Kent, Redbridge, Leeds and Windsor & Maidenhead that are harnessing the technology to develop new and innovative relationships with their residents may act as a vanguard for wider change along the lines advocated by authors such as Newsom (2014), Townsend (2013), Waugh (2013), O'Reilly (2011), Dunleavy et al. (2010, 2008, 2006), Noveck (2009), and many others. Chadwick & May's (2003) comment that it is not the power of technology which is at question in Gov2.0, rather it is the understanding and application of democracy which is important is indeed a driving force in the adoption of Gov2.0.

8.6 Thoughts on part-time PhD study

Finally, I would like to offer some thoughts on researching and completing a PhD study whilst doing a “day” job and enjoying a family life. This is never going to be an easy juggling act, and in one sense, all three will suffer at some stage from competing demands. However, the process of research and writing is one that I have found brings illumination and new insight to the other two.

One specifically underpinning requirement that must be in place prior to the commencement of the study is the support of those closest to the prospective author. This is a conversation that requires honesty between all parties. The prospective author being honest about the amount of time that they will need to commit to their research and that this will inevitably mean that they will have less time to spend with others in their life. Evenings and weekends will be devoted to reading, writing and rewriting. My advice, as well as honesty at the outset, is to set a work schedule and to stick to it. If you have said that you will work Monday, Tuesday, Thursday and Sunday evenings, then do that, but be sure to keep other evenings clear!

There are some significant advantages in part-time study. A part-time researcher will bring with them experience and live contacts in the work place that the full-time student may not have access to. If working in the field of the research the part-timer may have greater access to research opportunities and contacts, friends of friends in the industry who can open doors that are, for the full-timer, much harder

to prise open. The part-timer also has the opportunity for professional reflection. The PhD process provides windows for professional contemplation and reflection, allowing the employee an opportunity to consider their organisation and indeed, industry in a new way.

Overall the experience of writing a PhD part-time, once the domestic negotiations and work pressures and other distractions are considered, is a tremendous journey that broadens the horizons and develops new skills.

Bibliography

- 6, P., 2004. *E-Governance: Styles of Political Judgement in the Information Age*. Basingstoke: Palgrave MacMillan.
- 6, P., Leat, D., Seltzer, K. & Stoker, G., 2002. *Towards Holistic Governance*. Basingstoke: Palgrave.
- Adelson, M. & Aroni, S., 1975. Different Images of the Future. In: H. A. Linstone & M. Turoff, eds. *The Delphi Method techniques and Applications*. Reading Massachusetts: Addison-Wesley Publishing Company, pp. 433 - 462.
- Albrecht, S., 2006. Whose voice is heard in online deliberation?: A study of participation and representation in political debates. *Communication and Society*, 9(1), pp. 62-82.
- Alfred, R. & Alfred, M., 2013. From Entrepreneurs to Civic Entrepreneurs. In: B. Goldstein & L. Dyson, eds. *Beyond Transparency*. San Francisco: Code for America, pp. 65-79.
- Alvesson, M., 2002. *Postmodernism and Social research*. Buckingham: Open University Press.
- Anduiza, E., Gallego, A. & Cantijoch, M., 2010. Online Political Participation in Spain: The Impact of Traditional and Internet Resources. *Journal of Information Technology and Politics*, 7(4), pp. 356-368.
- Anon., 2011. *34SP.com Blog - dealing with the #riotcleanup surge*. [Online] Available at: <http://www.34sp.com/blog/official-news/dealing-with-the-uk-riotcleanup-surge/> [Accessed 10 August 2011].
- Antaki, M., 2007. The Critical Modernism of Hannah Arendt. *Theoretical Inquiries in Law*, 8(1), pp. 250-275.
- Antony, M. G. & Thomas, R. J., 2010. 'This is citizen journalism at its finest': YouTube and the public sphere in the Oscar Grant shooting incident.. *New Media & Society*, 12(8), pp. 1280-1296.
- Arbes, R. & Bethea, C., 2014. *The Atlantic*. [Online] Available at: <http://www.theatlantic.com/international/archive/2014/09/songdo-south-korea-the-city-of-the-future/380849/> [Accessed 11 January 2015].
- Arnstein, S. R., 1969. A Ladder of Citizen Participation. *JAIP*, 35(4), pp. 216-224.
- Arnstein, S. R., 1969. A Ladder of Citizen Participation. *JAIP*, 35(4), pp. 216-224.
- Bailey, R., Eichberger, J. & Kelsey, D., 2005. Ambiguity and Public Good Provision in Large Societies. *Journal of Public Economic Theory*, 7(5), pp. 741 - 759.

- Baptiste, L. J., 2011. What Educators Learn When They Evaluate Students. *Operant Subjectivity*, 34(2), pp. 104-123.
- Barberis, P., 1996. *The Whitehall Reader*. Buckingham: Open University Press.
- Barrance, T., 2015. Framing Gov2.0: A Q-Methodological Study of Practitioners' and Local Politicians' Opinions. *Local Government Studies*, 41(5), pp. 695-712.
- Bason, C., 2013. Engaging Citizens in Policy Innovation: Benefiting Public Policy from the Design Inputs of Citizens and Stakeholders as 'Experts'. In: E. A. Lindquist, S. Vincent & J. Wanna, eds. *Putting Citizens First. Engagement in Policy and Service Delivery for the 21st century*. Canberra: Australian National University EPress, pp. 61-73.
- BBC News, 2013. *Tomorrow's cities: Just how smart is Songdo?*. [Online] Available at: <http://www.bbc.co.uk/news/technology-23757738> [Accessed 11 January 2015].
- BBC, 2007. *English Local Elections 2007*. [Online] Available at: http://news.bbc.co.uk/1/shared/vote2007/local_councils/html/region_99999.stm [Accessed 14 April 2014].
- BBC, 2011. *Wales Says Yes in Referendum*. [Online] Available at: <http://www.bbc.co.uk/news/uk-wales-12482561> [Accessed 12 October 2011].
- Bellamy, C., 6, P. & Raab, C., 2005. Joined-up Government and Privacy in the United Kingdom: Managing Tensions Between Data Protection and Social Policy. *Public Administration*, 83(2), pp. 393-415.
- Bell, S., 2011. Do We Really Need a New 'Constructivist Institutionalism'. *British Journal of Political Science*, 41(4), pp. 883-906.
- Benford, R. D. & Snow, D. A., 2000. Framing Processes and Social Movements: An Overview and Assessment. *Annual Review of Sociology*, Volume 26, pp. 611-639.
- Berger, P. & Luckman, T., 1991. *The Social Construction of Reality*. London: Penguin Books.
- Berners-Lee T, H. J. a. L. O., 2001. The Semantic Web. *Scientific American*.
- Berners-Lee, T., 2006. *SW and Web 2.0*. [Online] Available at: <http://www.w3.org/2006/Talks/1108-swui-tbl/#%281%29> [Accessed 28 August 2011].
- Blackwell, C., 2003. *The Assembly*. [Online] Available at: <http://www.stoa.org/projects/demos/assembly.pdf> [Accessed 12 September 2011].

- Bolton, R., 1992. 'Place Prosperity vs People Prosperity' Revisited :An Old Issue with a New Angle. *Urban Studies* , 29(2), pp. 185-203.
- Bonsón, E., Torres, L., Royo, S. & Flores, F., 2012. Local e-government 2.0: Social media and corporate transparency in municipalities. *Government Information Quarterly*, Volume 29, p. 123–132.
- Bovaird, T., 2005. Public governance: balancing stakeholder power in a network society. *International review of Administrative Sciences*, 71(2), pp. 217-228.
- Boyd, A., 2012. Personalising Public Services: Understanding the Personalisation Narrative. *Local Government Studies*, 38(3), pp. 389-390.
- Boyne, G., 1998. *Public Choice Theory and Local Government*. Basingstoke: MacMillan.
- Brabham, D. C., 2009. Crowdsourcing the Public Participation Process for Planning Projects. *Planning Theory*, 8(3), pp. 242-262.
- Bracken, M., 2015. *Government Digital Service Blog*. [Online]
Available at: <https://gds.blog.gov.uk/2015/03/29/government-as-a-platform-the-next-phase-of-digital-transformation/>
[Accessed 7 May 2015].
- Brewer, G. A., Coleman, S. & Facer II, R. L., 2000. Individual Conceptions of Public Service Motivation. *Public Administration Review*, 60(3), pp. 254-264.
- Bristol City Council, 2015. *Bristol City Council Webcasts*. [Online]
Available at: <http://www.bristol.public-i.tv/core/portal/home>
[Accessed 28 July 2015].
- Brown, S. R., 1980. *Political Subjectivity: Application of Q-Methodology in Political Science*. New Haven: Yale University Press.
- Brown, S. R., 1997. *The History and Principles of Q-Methodology in Psychology and the Social Sciences*. [Online]
Available at: <http://facstaff.uww.edu/cottlec/QArchives/Bps.htm>
[Accessed 21 05 2007].
- Brown, S. R., Danielson, S. & van Exel, J., 2014. Overly ambitious critics and the Medici Effect: a reply to Kampen and Tamás. *Qual Quant*, Volume 49, pp. 523-537.
- Brown, S. R. & Taylor, R. W., 1973. Frames of Reference and the Observation of Behavior. *Social Science Quarterly*, 54(1), pp. 29-40.
- Brüger, N., 2001. What about the Postmodern? The Concept of the Postmodern in the Work of Lyotard. *Yale French Studies*, Volume 99, pp. 77-92.
- Burkholder, D. & Janson, C., 2013. Supporting PhD Completion: Student and Faculty Perspectives. *Operant Subjectivity*, 36(4), pp. 272-287.

Burnier, D., 2005. Making it Meaning Full: Postmodern Public Administration and Symbolic Interactionism. *Administrative Theory & Praxis*, 27(3), pp. 498-516.

Burr, V., 2007. *Social Constructionism*. 2nd ed. Hove: Routledge.

Buser, M., 2013. Tracing the Democratic Narrative: Big Society, Localism and Civic Engagemet. *Local Government Studies*, 39(1), pp. 3-21.

Cabinet Office, 2010. *About Data.gov.uk*. [Online]
Available at: <http://data.gov.uk/project>
[Accessed 3 September 2011].

Cabinet Office, 2011. *Further Details on Open Data Measures in the Autumn Statement 2011*, London: HM G0vernment .

Cabinet Office, 2014. *Policy Paper:Action 11 case study: build government as a platform*. [Online]
Available at: <https://www.gov.uk/government/publications/case-study-on-action-11-build-government-as-a-platform/action-11-case-study-build-government-as-a-platform--2>
[Accessed 2 November 2014].

Central Bedfordshire Council - Customer & Community Insight Team, 2010. *Indices of Deprivation 2010*, Shefford: Central Bedfordshire Council.

Central Bedfordshire Council, 2011. *ePetition details. Proposed Cut to School Crossing Patrols*. [Online]
Available at:
<http://www.centralbedfordshire.gov.uk/modgov/mgEPetitionDisplay.aspx?ID=40&RPID=9672490&HPID=9672490>
[Accessed 1 March 2014].

Central Bedfordshire Council, 2014. *Assistant Chief Executive Resources Month by Month spending details - January 2014*. [Online]
Available at: <http://www.centralbedfordshire.gov.uk/council-and-democracy/spending/transparency/financial-year-2013-2014/ace-resources-transparency-details.aspx>
[Accessed 2 March 2014].

Central Bedfordshire Council, n.d. *DECLARATION OF RESULT OF POLL 2011 Local Election Results*. [Online]
Available at:
http://www.centralbedfordshire.gov.uk/Images/01.%20CBC%20District%20results%20-%20ALL%20-%20tagged%20%26%20optimised_tcm6-13043.pdf#False
[Accessed 14 April 2014].

Centre for Public Scrutiny, 2011. *Data, Transparency and Openess*, London: CFPS.

Cerf, V. G. & Kahn, R. E., 1974. A Protocol for Packet Network Intercommunication. *Transactions on Communications*, 22(5).

- Chadwick, C. & May, A., 2003. Interaction between States and Citizens in the Age of the Internet: "e-government" in the United States, Britain and the European Union. *Governance*, 61(2), pp. 271 - 300.
- Chen, Y.-C. & Thurmaier, K., 2008. Advancing E-Government: Financing Challenges and Opportunities. *Public Administration Review*, 68(3), pp. 537-548.
- Chia, R., 1997. Essai: Thirty years on: From Organisational Structures to the Organization of Thought. *Organizational Studies*, 18(4), pp. 685-697.
- Chisholm, M., 2000. *Structural Reform of British Local Government*. Manchester: Manchester University Press.
- Chui, R., Farrell, D. & Van Kuiken, S., 2013. Generating Economic Value Through Open Data. In: B. Goldstein & L. Dyson, eds. *Beyond Transparency*. San Francisco: Code for America, pp. 163 - 172.
- Clegg, S., Kornberger, M. & Pitsis, T., 2006. *Managing and Organizations*. London: Sage.
- Cobo, C., 2012. Networks for citizen consultation and citizen sourcing of expertise. *Contemporary Social Science*, 7(3), pp. 283-304.
- Coleman, E., 2013. Lessons from the London Datastore. In: B. Goldstein & L. Dyson, eds. *Beyond Transparency: Open Data and the Future of Civic Innovation*. San Francisco: Code for America, pp. 39-50.
- Corbett, S. & Walker, A., 2013. The Big Society: Rediscovery of 'The Social' or Rhetorical Fig-Leaf for Neo-Liberalism. *Critical Social Policy*, 33(3), pp. 451-472.
- Cormode, G. & Krishnamurthy, B., 2008. *Key Differences between Web1.0 and Web2.0*. [Online]
Available at:
[Http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2125/1972](http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2125/1972)
[Accessed 6 June 2011].
- Corrocher, N., 2011. The adoption of Web2.0 Services: An empirical Investigation. *Technological Forecasting and Social Change*, Volume 78, pp. 547 - 558.
- Costley, C., Elliott, G. & Gibbs, P., 2011. *Doing Work Based Research*. London: Sage Publications Ltd.
- Coursey, D. & Norris, D. F., 2008. Models of E-Government: Are They Correct? An Empirical Assessment. *Public Administration Review*, May-June, 68(3), pp. 523-536.
- Cox, M., 2014. Conundrums in Benchmarking eGovernment Capabilities? Perspectives on Evaluating European Usage and Transparency. *Electronic Journal of e-Government*, 12(2), pp. 170-178.

Creative Commons, 2011. *About*. [Online]
Available at: <http://creativecommons.org/about>
[Accessed 28 August 2011].

Creswell, J. W., 2003. *Research Design. Qualitative, Quantitative and Mixed Methods Approached*. Second ed. London: Sage.

Cross, M., 2007. *Public sector information 'worth billions'*. [Online]
Available at: <http://www.guardian.co.uk/technology/2007/nov/15/freeourdata.news>
[Accessed 29 August 2011].

Cross, R. M., 2005. Exploring Attitudes: The Case for Q Methodology. *Health Education Research*, 20(2), pp. 206-213.

Culnan, M. J. & Armstrong, P. K., 1999. Information Privacy Concerns, Procedural Fairness, and Impersonal Trust: An Empirical Investigation. *Organizational Science*, 10(1), pp. 104-115.

Dade, A. & Hassenzahl, D. M., 2013. Communicating Sustainability. A content analysis of website communications in the United States. *International Journal of Sustainability in Higher Education*, 14(3), pp. 254-263.

Daily Mail, 2013. State sector still getting the biggest wage rises: Average worker sees increase of 1.7% despite Coalition pledge to freeze pay. *Daily Mail*, 03 May.

Daily Telegraph, 2011. 220 town hall bosses earning more than David Cameron. *Daily Telegraph*, 14 February.

Daily Telegraph, 2011. Iceland Reviews Constitution with help from online Community. *Daily Telegraph*, 10 June.

Daily Telegraph, 2013. One in Seven Public Toilets Closed by Council Cuts. *Daily Telegraph*, 17 November.

Daily Telegraph, 2013. Only Three Viewers logging on for live £100,000 Council Meeting broadcasts. 15 March.

Dalal, S. et al., 2011. ExpertLens:A system for eliciting opinions from a large pool of non-collocated experts with diverse knowledge. *Technological Forecasting and Social Change*, Volume 78, pp. 1426 - 1444.

Dalkey, N. & Helmer, O., 1962. *An Experimental Application of the Delphi Method to the Use of Experts*, Santa Monica California: United States Air Force Project Rand.

Danziger, J. N., 2004. Innovation in Innovation? the Technological Enactment Framework. *Social Science Computer Review*, 22(1), pp. 100-110.

Das, R. & Turkoglu, I., 2009. Creating meaningful data from web logs for improving the impressiveness of a website by using path analysis method. *Expert Systems with Applications*, 36(3P2), pp. 6635-6644.

Day, P., 2013. *BBC Magazine. Imagine a world without shops or factories.* [Online]
Available at: <http://www.bbc.co.uk/news/magazine-23990211>
[Accessed 11 October 2013].

De Vries , R. et al., 2010. Assessing the quality of democratic deliberation: A case study of public deliberation on the ethics of surrogate consent for research. *Social Science & Medicine*, Volume 70, pp. 1896-1903.

Department for Communities and Local Government, 2014. *Local Government Transparency Code 2014.* [Online]
Available at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/308185/Local_Government_Transparency_Code_2014_Final.pdf
[Accessed 22 May 2014].

Department for Communities and Local Government, 2013. *Openness and Transparency on Personal Interests: A Guide for Councillors.* London: TSO.

Department of Communities and Local Government, 2010. *Department of Communities and Local Government Newsroom.* [Online]
Available at: <http://www.communities.gov.uk/news/corporate/1606882>
[Accessed 4 September 2011].

Department of Communities and Local Government, 2011. *News - Hammersmith and Fulham Council publishes all spending over £500.* [Online]
Available at: <https://www.gov.uk/government/news/hammersmith-and-fulham-council-publishes-all-spending-over-500>
[Accessed 2 December 2012].

Department of Communities and Local Government, 2011. *Pickles and Hammond to end the war on motorists*, s.l.: s.n.

Department of Communities and Local Government, 2012. *50 Ways to Save - Examples of sensible savings in local Government*, London: DCLG.

Department of Communities and Local Government, 2014. *Press freedom boosted by new 'right to report'.* [Online]
Available at: <https://www.gov.uk/government/news/press-freedom-boosted-by-new-right-to-report>
[Accessed 1 August 2015].

Diamond, J., 2006. *Collapse. How Societies Choose to Fail or Survive.* London: Penguin.

Dixon, B. E., 2010. Towards E-Government 2.0: An Assessment Of Where E-Government 2.0 Is And Where It Is Headed. *Public Administration & Management*, 15(2), pp. 418-454.

Dryzek, J. S. & Berejikian, J., 1993. Reconstructive Democratic Theory. *American Political Science Review*, 87(1), pp. 48-60.

Dunleavy, P., 2003. *Authoring A PhD.* Basingstoke: Palgrave.

- Dunleavy, P. & Margetts, H., 2000. *The Advent of Digital Government: Public Bureaucracies and the State in the Internet Age*. WashingtonDC, s.n., pp. 1-22.
- Dunleavy, P. & Margetts, H., 2010. *The Second Wave of digital era Governance*. Washington DC, London School of Economics, pp. 1-32.
- Dunleavy, P., Margetts, H., Bastow, S. & Tinkler, J., 2005. New Public Management is Dead - Long live Digital Era Governance. *Journal of Public Administration Research and Theory*, Volume 16, pp. 467 - 494.
- Dunleavy, P., Margetts, H., Bastow, S. & Tinkler, J., 2006. *Digital Era Governance: IT Corporations, the State and E-Government*. Oxford: Oxford University Press.
- Dunne, K., 2010. Can online Forums Address Political Disengagement for Local Government. *Journal of Information Technology and Politics*, 7(4), pp. 300-317.
- Dutton, W. H., 1999. *Society on the Line: Information Politics in the Digital Age*. Oxford: Oxford University Press.
- Dutton, W. H., Blank, G. & Groselj, D., 2013. *Cultures of the Internet: The Internet in Britain.*, Oxford: Oxford Internet Institute, University of Oxford.
- Dziopa, F. & Ahern, K., 2011. A Systematic Literature Review of the Applications of Q-Technique and its Methodology. *Methodology*, 2(39-55), p. 7.
- Eaves, D., 2011. After the Collapse: Open Government and the Future of Civil Service. In: D. Lathrop & L. Ruma, eds. *Open Government*. Sebastopol, CA: O'Reilly Media, pp. 139-151.
- Eggers, W. D., 2007. *Government 2.0: Using Technology to Improve Education, Cut Red Tape, Reduce Gridlock and Enhance Democracy*. Lanham, Maryland: Rowman & Littlefield.
- Eisenhardt, K. M., 1989. Building Theories from Case Study Research. *The Academy of Management Review*, 14(4), pp. 532-550.
- Elcock, H., Fenwick, J. & McMillan, J., 2010. The reorganization addiction in local government: unitary councils for England. *Public Money & Management*, 30(6), pp. 331-338.
- Ellingsen, I. T., Størksen, I. & Stephens, P., 2010. Q-Methodology in Social Work Research. *International Journal of Social Research Methodology*, 13(5), pp. 395-410.
- Ellison, N., 2013. Citizenship, Space and Time: Engagement, Identity and Belonging in a Connected World. *Thesis Eleven*, 118(1), pp. 48-63.
- Ellison, N. & Hardey, M., 2012. Developing Political Conversations?. *Information, Communication and Society*, 16(6), pp. 878-898.
- Ellison, N. & Hardey, M., 2013. Developing Political Conversations?. *Information, Communication and Society*, 16(6), pp. 878-898.

- Ellison, N. & Hardey, M., 2013. Developing Political Conversations?. *Information, Communication and Society*, 16(6), pp. 878-898.
- Ellison, N. & Hardey, M., 2014. Social Media and Local Government: Citizenship, Consumption and Democracy. *Local Government Studies*, 40(1), pp. 21-40.
- Elo, S. & Kyngäs, H., 2008. The Qualitative Content Analysis Process. *Journal of Advanced Nursing Studies*, 62(1), pp. 107-115.
- Enserink, B. & Monnikhof, R. A., 2003. Information Management or Public Participation in Co-design Processes: Evaluation of a Dutch Example. *Journal of Environmental and Planning Management*, 46(3), pp. 315-344.
- Entman, R. M., 1993. Framing: Towards Clarification of a Fractured Paradigm. *Journal of Communication*, 43(4), pp. 51-58.
- Eriksen, E. O. & Weigard, J., 2004. *Understanding Habermas: Communicating Action and Deliberative Democracy*. London: Continuum.
- Fairfield, P., 1994. Habermas, Lyotard and Political Discourse. *Reason Papers*, Issue 19, pp. 58-79.
- Farmer, D. J., 2005. *to Kill The King: Post Traditional governance and Bureacracy*. London: M.E,Sharpe.
- Farnham, D., Hondeghem, A. & Horton, S., 2005. *Staff Participation and Public Management Reform*. Basingstoke: Palgrave Macmillan.
- Ferro, E. & Molinari, F., 2010. Making Sense of Gov2.0 Strategies: "No citizens, No Party". *Journal of eDemocracy*, 2(1), pp. 56-68.
- Field, A. & Hole, G., 2003. *How to Design and Report Experiments*. London: Sage.
- Finlayson, A. et al., 2004. The Interpretive Approach in Political Science: a Symposium. *British Journal of Politics and International Relations*, 6(2), pp. 129 - 164.
- Fischer, F., 1993. Policy Discourse and Think Tanks. In: *The Argumentative Turn*. London: Duke University Press.
- Fisher, R. A., 1937. *The Design of Experiments*. 2nd ed. London: Oliver and Boyd.
- Flowers, J., 2013. *The Future Town Hall*, London: LGIU.
- Flyvbjerg, B., 1998. Habermas and Foucault: Thinkers for Civil Society. *British Journal of Sociology*, 49(2), pp. 210-233.
- Foucault, M., 1980. *Power/Knowledge. Selected Interviews and Other Writings 1972-1977*. New York: Pantheon Books.
- Foucault, M., 2011. *The Archaeology of Knowledge*. Oxford: Routledge.

- Fountain, J. E., 2001. *Building the Virtual State*. Washington DC: Brookings Institution Press.
- Frank, H., Kahn, R. E. & Kleinrock, L., 1972. Computer communication network design— Experience with theory and practice. *Computer Communication Network Design*, Volume Spring, pp. 255 -.
- Froomkin, M. A., 2004. Technologies for Democracy. In: P. M. Shane, ed. *Democracy on Line: The Prospects for Political Renewal Through the Internet*. Abingdon: Routledge, pp. 3-20.
- Fung, A. & Erik, W. O., 2001. Deepening Democracy: Innovations in Empowered Participatory Governance. *Politics and Society*, 29(1), pp. 5-41.
- Fung, A., Graham, M. & Weil, D., 2007. *Full Disclosure- The Perils and Promise of Transparency*. Cambridge: Cambridge University Press.
- Fung, A. & Wright, E. O., 2003. *Deepening Democracy - Institutional Innovations in Empowered Participatory Governance*. London: Verso.
- Gale International LLC, 2014. *Songdo IBD*. [Online]
Available at: <http://www.songdo.com/songdo-international-business-district/the-city/master-plan.aspx>
[Accessed 11 January 2015].
- Gammon, H., 1954. The Automation of Office Paper Work. *Public Administration Review*, 14(1), pp. 63-73.
- Garson, G. D., 2003. *Public Information Technology: Policy and Management Issues*. London: Idea.
- Gartner Inc., 2015. *Research Methodologies*. [Online]
Available at: <http://www.gartner.com/technology/research/methodologies/hype-cycle.jsp>
[Accessed 31 July 2015].
- Gheera, M., 2012. *Direct payments and personal budgets for*, London: House of Commons.
- Giddens, A., 1993. *Sociology*. Cambridge: Polity Press.
- Glasby, J., 2011. *Whose risk is it anyway? Risk and regulation in an era of personalisation*, York: Joseph Rowntree Foundation.
- Glynos, J., Howarth, D., Norval, A. & Speed, E., 2009. *Discourse Analysis: Varieties and Methods*, s.l.: ESRC National Centre for Research Methods.
- Goffman, E., 1974. *Frame Analysis*. 2nd ed. Lebonon, New England: University Press of New England.

- Gordon, E. & Manosevitch, E., 2010. Augmented Deliberation: Merging Physical and Virtual Interaction to Engage Communities in Urban Planning. *New Media and Society*, 13(1), pp. 75 - 95.
- Grafton, C., 2003. "Shadow Theories" in Fountain's Theory of Technological Enactment. *Social Science Computer Review*, 21(4), pp. 411-416.
- Greater Manchester Police, 2011. *Twitter.com*. [Online] Available at: <http://twitter.com> [Accessed 9 August 2011].
- Greenwood, J., 1993. Reflective Practice: A critique of the work of Argyris and Schön. *Journal of Advanced Nursing*, Volume 18, pp. 1183 -1187.
- Gregor, S., 2006. The Nature of Theory in Information Systems. *MIS Quarterly*, 30(3), pp. 611-642.
- Grimmelikhuijsen, S. G., 2010. Transparency of Public Decision-Making: Towards Trust in Local Government?. *Policy & Internet*, 2(1), pp. 5-35.
- Gummesson, E., 2003. All Research is Interpretive!. *Journal of Business & Industrial Marketing*, 18(6), pp. 482 - 492.
- Gupta, U. G. & Clarke, R. E., 1996. Theory and Applications of the Delphi Technique: A Bibliography (1975-1994). *Technological Forecasting and Social Change*, Volume 53, pp. 185 -211.
- Gutmann, A. & Thompson, D., 2004. *Why Deliberative Democracy?*. Oxford: Princeton University Press.
- Guzzinni, S., 2000. A Reconstruction of Constructivism in International Relations. *European Journal of International Relations*, 6(2), pp. 147-182.
- Habermas, J., 1993. *Justification and application: remarks on discourse ethics*. Cambridge: MIT Press.
- Hackert, C. & Braehler, G., 2007. *FlashQ*. s.l.:s.n.
- Hall, M. A., 2014. Evaluating the Affordable Care Act: The Eye of the Beholder. *Houston Law Review*, 51(4), pp. 1029-1056.
- Halpern, N. & Regmi, U. K., 2013. Content analysis of European airport websites. *Journal of Air Transport Management*, Volume 26, pp. 8-13.
- Hambleton, R., 2000. Modernising Political Management in Local Government. *Urban Studies*, 37(5-6), pp. 931-950.
- Harris, M., 2012. Why are councils spinning against freedom of information?. *The Guardian*, 16 March.

- Hayes-Smith, R. & Hayes-Smith, J., 2009. A Website Content Analysis of Women's Resources and Sexual Assault Literature on College Campuses. *Critical Criminology*, 17(2), pp. 109-123.
- Health and Social Care Information Centre, 2014. *Data Linkage and Extract Service*. [Online]
Available at: <http://www.hscic.gov.uk/dles>
[Accessed 22 April 2014].
- Heeks, R. & Bailur, S., 2007. Analyzing e-government research: Perspectives, Philosophies, Theories, Methods, and Practice. *Government Information Quarterly*, Volume 24, pp. 243-265.
- Held, D., 1995. *Models of Democracy*. Cambridge: Polity Press.
- Henman, P., 2004. E-government and the Electronic Transformation of Modes of Rule. *Systemics, cybernetics and informatics*, 2(2), pp. 19-24.
- Henman, P., 2010. *Governing Electronically. E-Government and the Reconfiguration of Public Administration, Policy and Power*. Basingstoke: Palgrave Macmillan.
- Herring, S. C., 2010. Web content Analysis: Expanding the Paradigm. In: J. Hunsinger, M. Allen & L. Klastrup, eds. *The International Handbook of Internet Research*. London: Springer, pp. 251-267.
- HMSO, 2000. *Freedom of Information Act 2000*. s.l.:HMSO/the National Archives.
- Hon, W. K., Millard, C. & Walden, I., 2011. The Problem of 'Personal Data' in Cloud Computing: What Information is Regulated?- the Cloud of Unknowing. *International Data Privacy Law*, 1(4), pp. 211 - 228.
- Hood, C., 2000. *The Art of State*. Oxford: Clarendon Press.
- Hood, C. C. & Margetts, H. Z., 2007. *The Tools of Government in the Digital Age*. Basingstoke: Palgrave.
- House of Commons Committee of Public Accounts, 2012. *Implementing the Transparency Agenda*, London: The Stationery Office.
- House of Commons Information Office, 2010. *Factsheet P7 - Public Petitions*. [Online]
Available at: <http://www.parliament.uk/documents/commons-information-office/P07.pdf>
[Accessed 1 August 2014].
- House of Commons, 2015. *Petition Parliament*. [Online]
Available at: [2015](#)
[Accessed 1 August 2015].
- Howard, A., 2011 (a). *Citizensourcing Smarter Government in New York*. [Online]
Available at: <http://radar.oreilly.com/print/2011/03/nyc-smart-government.html>
[Accessed 6 June 2011].

- Howard, A., 2011 (b). *Opening Government, the Chicago Way*. [Online] Available at: <http://radar.oreilly.com/print/2011/08/chicago-data-apps-open-government.html> [Accessed 22 August 2011].
- Howle-Schelin, S., 2003. E-Government: An Overview. In: *Public Information Technology: Policy and Management Issues*. London: Idea Group Publishing, pp. 120-137.
- Hudson, J., Lowe, S. & Oscrift, N., 2007. Activating Policy Networks. *Policy Studies*, 28(1), pp. 55-70.
- Hughes, O. E., 2003. *Public Management and Administration*. Basingstoke: Palgrave.
- Hunt, S. D., 1991. Positivism and Paradigm Dominance in Consumer Research: Toward Critical Pluralism and Rapprochement. *Journal of Consumer Research*, June. Volume 18.
- Iannelli, L. & Giglietto, F., 2015. Hybrid spaces of politics: The 2013 general elections in Italy, between talk shows and Twitter. *Information, Communication and Society*, 18(9), pp. 1006-1021.
- Information Commissioner's Office, 2011. *Information Commissioner's Office*. [Online] Available at: <http://www.ico.gov.uk> [Accessed 27 August 2011].
- İstanbuluoğlu, D., 2013. *An Exploration of Consumers' Online Complaining Behaviour on Facebook*, Birmingham: University of Birmingham.
- Jackson, N. A. & Lilleker, D., 2009. Building and Architecture of Participation? Political Parties and Web 2.0 in Britain. *Journal of Information Technology and Politics*, 6(3), pp. 232-250.
- Jeffares, S. Dickinson, H. And Hughes, G. (2012) iPOETQ (version 1.1). Available at <http://poetqblog.blogspot.co.uk/> (accessed [date])., 2012. *iPOETQ (version 1.1)*. [Online] Available at: <http://poetqblog.blogspot.co.uk> [Accessed 01 February 2013].
- Jeffares, S., 2014. *Interpreting Hashtag Politics: policy ideas in an era of social media*. Basingstoke: Palgrave Macmillan.
- Jeffares, S. & Skelcher, C., 2011. Democratic Subjectivities In Network Governance: A Q Methodology Study Of English and Dutch Public Managers. *Public Administration*, 89(4), pp. 1253-1273.
- Jencks, C., 2007. Why Critical Modernism?. *Architectural Design*, 77(5), pp. 140-145.
- Johnson, P. & Robinson, P., 2014. Civic Hackathons: Innovation, Procurement or Civic Engagement. *Review of Policy Research* , 31(4), pp. 349-357.
- Jonas, J. & Harper, J., 2010. Open Government: The Privacy Imperative. In: *Open Government*. Sebastapol: O'Reilly Media, pp. 315-325.

- Jose, A. & Lee, S.-M., 2007. Environmental Reporting of Global Corporations: A content Analysis based on Website Disclosures. *Journal of Business Ethics*, Volume 72, pp. 307-321.
- Jungherr, A. & Jürgens, P., 2010. The Political Click: Political Participation through E-Petitions in Germany. *Policy & Internet*, 2(4), pp. 131-165.
- Kaiser, H. F., 1958. The Varimax Criterion for Analytic Rotation in Factor Analysis. *Psychometrika*, 23(3), pp. 187-200.
- Kampen, J. K. & Tamas, P., 2014. Overly ambitious: Contributions and Current Status of Q-Methodology. *Quality & Quantity*, 48(6), pp. 3109-3126.
- Kannan, P. K. & Chang, A.-M., 2013. *Beyond Citizen Engagement: Involving the Public in Co-Delivering Government Services*, Washington: The IBM Centre for the Business of Government.
- Kaul, I., 2000. *What is a Public Good?*. [Online]
Available at: [Http://mondediplo.com/2000/06/15publicgood](http://mondediplo.com/2000/06/15publicgood)
[Accessed 25 August 2011].
- Kaylor, C., Deshazo, R. & Van Eck, D., 2001. Gauging E-Government: A Report on Implementing Services Among American Cities.
- Keen, R., 2015. *Membership of UK political parties*, s.l.: House of Commons Library.
- Kelso, A., 2009. Parliament on its Knees: MP's Expenses and the Crises of Transparency at Westminster. *The Political Quarterly*, 80(3), pp. 329-338.
- Kelso, A., 2009. Parliament on its Knees: MP's Expenses and the Crises of Transparency at Westminster. *The Political Quarterly*, 80(3), pp. 329-338.
- Kimball, R. & Ross, M., 2002. *The Data Warehouse Toolkit*. Second Edition ed. New York: John Wiley and Sons..
- Kim, I. & Kujjis, J., 2010. Applying Content Analysis to Web Based Content. *Journal of Computing and Information Technology*, 18(4), pp. 369-375.
- Kincheloe, J. L., 2001. Describing the Bricolage: Conceptualizing a New Reigor in Qualitative Research. *Qualitative Enquiry*, 7(6), pp. 679-692.
- Kincheloe, J. L. & Berry, K., 2004. Introduction: The power of the bricolage: expanding research methods. In: *Rigour and Complexity in Education research*. s.l.: Open University Press/McGraw Hill.
- Kincheloe, J. L., unpublished. Bricolage and the Quest for Multiple Perspectives: New Approaches to Research in Ethnic Studies. In: *Bricolage and the Quest for Multiple Perspectives: New Approaches to Research in Ethnic Studies*. s.l.:s.n., p. 48.
- Kirby, D. & Ekins, E., 2012. *Libertarian Roots of the Tea Party*, Washington: Cato Institute.

- Kleinrock, L., 2010. An Early History of the Internet. *IEEE Communications Magazine*, August.
- Klijn, E.-H. & Skelcher, C., 2007. Democracy and Governance Networks: Compatible or Not?. *Public Administration*, 85(3), pp. 587-608.
- Konieczny, P., 2010. Adhocratic Governance in the Internet age: A Case of Wikipedia. *Journal of Information Technology and Politics*, 7(4), pp. 263-283.
- KPMG International, 2010. *Dynamic Technologies for Smarter Government*, s.l.: KPMG.
- Krippendorff, K., 1989. Content Analysis. In: E. Barnouw, et al. eds. *International Encyclopedia of Communication*. New York: Oxford University Press, pp. 403-407.
- Krippendorff, K., 2004. reliability o Content Analysis. Some Common Misconceptions and Recommendations. *Human Communication Research*, 30(3), pp. 411-433.
- Kroesen, M. & Bröer, C., 2009. Policy Discourse, People's Internal Frames and Declared Aircraft Noise Annoyance: An application of Q-Methodology. *Journal of the Acoustical Society of America*, 26(1), pp. 195-207.
- Krueger, B. S., 2002. Assessing the Potential of Internet Political Participation in the United States: A Resource Approach. *American Politics Research*, 30(5), pp. 476 - 498.
- Landemore, H., 2014. Inclusive Constitution-Making: The Icelandic Experiment. *The Journal of Political Philosophy*.
- Landeta, J., Barrutia, J. & Lertxundi, A., 2011. Hybrid Delphi: A methodology to facilitate contribution for experts in professional contexts. *Technological Forecasting and Social Change*, Volume 78, pp. 1629-1641.
- Lathrop, D. & Ruma, L., 2011. *Open Government*. Sebastopol, CA: O'Reilly Media.
- Leach, S. et al., 2003. *Strengthening Local Democracy - Making the Most of the Constitution*, London: Office of the Deputy Prime Minister.
- Leach, S., 2009. Reorganisation, Reorganisation, Reorganisation: A Critical Analysis of the Sequence of Local Government Reorganisation Initiatives, 1979–2008. *Local Government Studies*, 35(1), pp. 61-74.
- Leadbeater, C., 2011. *The Civic Long Tail*, London: DEMOS.
- Lessig, L., 2009. *Against Transparency*. [Online]
Available at: www.tnr.com/print/article/books-and-art/against-transparency
[Accessed 5 October 2011].
- Lester, R. & Sandra, M., 2001. *Local Government Governance*. London: Butterworths.
- Lincoln, Y. S., 2001. An Emerging Bricoleur: Promises and Possibilities - A reaction to Joe Kincheloe's "Describing the Bricoleur". *Qualitative Enquiry*, 7(6), pp. 693-705.

Lindquist, E., 2013. Putting Citizens First: Engagement in Policy and Service Delivery for the 21st Century. In: E. Lindquist, S. Vincent & J. Wanna, eds. *Putting Citizens First: Engagement in Policy and Service Delivery for the 21st Century*. Canberra: Australian National University, pp. 1-22.

Local Government Association, 2011. *Local Transparency - A Practitioners Guide to Publishing New Contracts and Tenders Data*. [Online]
Available at: <http://localnewcontracts.readandcomment.com/files/2011/04/Local-transparency-a-practitioners-guide-to-publishing-new-contracts-110331.pdf>
[Accessed 14 September 2014].

Local Government Association, 2011. *London Borough of Redbridge: Open Data*, London: Local Government Association.

Local Government Lawyer, 2013. DCLG publishes guide to reporting on and filming council meetings. *Local Government Lawyer*, Volume June.

Lodge, J., 1994. Transparency and Democratic Legitimacy. *Journal of Common Market Studies*, 32(3), pp. 343 - 368.

London Borough of Barnet, 2014. *Re (Regional Enterprise) limited*. [Online]
Available at: <http://www.barnet.gov.uk/re>
[Accessed 27 June 2014].

London Borough of Lambeth and Boilerhouse Media Ltd, 2012. *Lambeth in Numbers*. [Online]
Available at: <http://www.lambeth-in-numbers.co.uk/>
[Accessed 14 September 2014].

London Evening Standard, 2015. Lutfur Rahman corruption verdict: Tower Hamlets mayor guilty of corruption and election result is declared void. *London Evening Standard*, 24 April.

Longo, J., 2011. #OpenData: Digital-Era Governance Thoroughbred or New Public Management Trojan Horse. *Public Policy and Governance Review*, 2(2), pp. 38-51.

Longo, J., 2011. (Unpublished) From Massive Mainframes to Massive Data, Databanks to #OpenData, "As We May Think" to Thinking Machines: Computer Supported Policy Analysis and the Future of Practice. *UnPublished presentation to Dobell Symposium*, pp. 1-26.

Lowndes, V., Pratchett, L. & Stoker, G., 2006. Local Political Participation: The Impact of Rules-in-use. *Public Administration*, 84(3), pp. 539-561.

Lymbery, M., 2012. Social Work and Personalisation: Fracturing the Bureau-Professional Compact?. *British Journal of Social Work*, Volume November, pp. 1-17.

Lynn, L. E. J., 2002. The Myth of the Bureaucratic Paradigm: What Traditional Public Administration Really Stood For.. *Public Administration Review*, 62(2), pp. 144-160.

- Lyotard, J.-F., 2004. *The Postmodern Condition: A Report on Knowledge*. Manchester: Manchester University Press.
- Marsh, D. & Smith, M., 2000. Understanding Policy Networks: towards a Dialectical Approach. *Political Studies*, Volume 48, pp. 4-21.
- Mason, R., 2014. HMRC to sell taxpayers' financial data. *The Guardian*, 08 April.
- Mayring, P., 2000. Qualitative Content Analysis. *Forum: Qualitative Social Research*, 1(n).
- McKeown, B. & Thomas, D., 1988. *Q Methodology*. London: Sage.
- McKinlay, P., 2014. Governance and the Co-Design of Services: The importance of a Governance Perspective. *Asia Pacific Journal of Public Administration*, 35(1), pp. 53-70.
- McNeal, R., Hale, K. & Dotterweich, I., 2008. Citizen-Government Interaction and the Internet: Expectations and Accomplishments in Contact, Quality and Trust. *Journal of Information Technology and Politics*, 5(2), pp. 213 - 229.
- Mergel, I., Schweik, C. & Fountain, J., 2009. The Transformational Effect of Web2.0 Technologies on Government. *Unpublished*. Available at <http://ssrn.com/abstract=1412796>.
- Mijer, A. J. et al., 2012. Government 2.0: Key Challenges to its Realization. *Electronic Journal of e-Government*, 10(1), pp. 59-69.
- Miller, E. & Klein, M., 2009. *TNR debate: Too Much Transparency? (Part II)*. [Online] Available at: <http://tnr.com> [Accessed 5 October 2011].
- Miller, H. T. & Fox, C. J., 2007. *Postmodern Public Administration*. London: M.E. Sharpe.
- Mill, J. S., 1861. *Considerations on Representative Government*. 1st ed. London: Parker, Son, and Bourn, West Strand.
- Ministry of Justice, 2014. *10th anniversary of Freedom of Information Act*. [Online] Available at: <https://www.gov.uk/government/news/10th-anniversary-of-freedom-of-information-act> [Accessed 20 June 2015].
- Mintzberg, H. & McHugh, A., 1985. Strategy Formation in an Adhocracy. *Administrative Science Quarterly*, 30(2), pp. 160-197.
- Moon, M. J., 2002. The Evolution of E-Government among municipalities: Rhetoric or Reality?. *Public Administration Review*, 62(4), pp. 424-433.
- Morison, J., 2010. Gov2.0: Towards a User Generated State. *The Modern Law Review*, 73(4), pp. 551-577.

- Moss, G. & Coleman, S., 2014. Deliberative Manoeuvres in the Digital Darkness:e-Democracy Policy in the UK. *British Journal of Politics and International Relations*, Volume 16, pp. 410-427.
- National Audit Office, 2012. *Implementing Transparency*, London: TSO.
- National Literacy Trust, 2014. *Literacy:State of the Nation*, London: National Literacy Trust.
- Newman, J., Marian, B., Sullivan, H. & Knops, A., 2004. Public Participation and Collaborative Governance. *Journal of Social Policy*, 33(2), pp. 203-223.
- Newsom, G., 2014. *Citizenville*. New York: Penguin.
- Nielsen, R. K., 2011. Mundane Internet Tools, Mobilization Practices, and the Coproduction of Citizenship in Political Campaigns. *New Media and Society*, 13(5), pp. 755-771.
- Niskanen, W., 1975. Bureaucrats and Politicians. *Journal of Law and Economics*, 18(3), pp. 617-643.
- Noonan, R. K., 1995. Women against the State: Political Opportunities and Collective Action Frames in Chile's Transition to Democracy. *Sociological Forum*, 10(1), pp. 81-111.
- Norris, D. F. & Reddick, C. G., 2013. Local E-Government in the United States: Transformation or Incremental Change?. *Public Administration Review*, 73(1), pp. 165-175.
- Northcote, S. H. & Trevelyan, C. E., 1853. *Report on organisation of the Permanent Civil Service*. [Online]
Available at: <http://www.civilservant.org.uk/northcotetrevelyan.pdf>
[Accessed 16 October 2011].
- North, L., 2008. *Selling the electoral register*. [Online]
Available at: <http://lordsoftheblog.net/2008/08/27/selling-the-electoral-register/>
[Accessed 22 April 2014].
- Noveck, B. S., 2009. *Wiki Government*. Washington DC: Brookings Institute Press.
- Noveck, B. S., 2010. The Single Point of Failure. In: D. Lathrop & L. Ruma, eds. *Open Government*. Sebastopol: O'Reilly Media, pp. 167-1776.
- Oates, B. J., 2003. The potential contribution of ICTs to the political process. *The Journal of E-Government*, 1(1), pp. 31-39.
- Office of National Statistics, 2013. *UK Electoral Statistics*, London: Office of National Statistics.
- Olphert, W. & Damodaran, L., 2007. An evaluation of the information content of local authority websites in the UK using citizen-based scenarios. *Library and Information Research*, 31(98), pp. 45-60.

Open Public Services Network, 2015. *Students in deprived neighbourhoods being denied access to 'tough subjects'*. [Online]

Available at: <https://www.thersa.org/action-and-research/arc-news/opsn-publishes-new-data-on-access-to-gcse-subjects-across-england/>

[Accessed 12 February 2015].

O'Reilly, T., 2005. *What is Web2.0*. [Online]

Available at: <http://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html>

[Accessed 39 12 2014].

O'Reilly, T., 2007. What is Web2.0: Design Patterns and Business Models for the Next Generation of Software. *Communications & Strategies*, 65(1), pp. 17 - 37.

O'Reilly, T., 2007. What is Web2.0: Design Patterns and Business Models for the Next Generation of Software. *Communications & Strategies*, 65(1), pp. 17 - 37.

O'Reilly, T., 2011. Government as a Platform. In: D. Lathrop & L. Ruma, eds. *Open Government*. Sebastopol, CA: O'Reilly Media.

Osborne, D., 1993. reinventing Government. *Public Productivity and Management Review*, 16(4), pp. 349-353.

Osimo, D., 2008. *Web 2.0 in Government: Why and How*, Brussels: European Commission.

Overman, E. S. & Loraine, D. T., 1994. Information for Control: Another Management Proverb. *Public Administration Review*, 54(2), pp. 193 - 96.

Parliament, 2015. *The Commons goes live*. [Online]

Available at: <http://www.parliament.uk/about/living-heritage/evolutionofparliament/parliamentwork/communicating/overview/thecommonsgoeslive/>

[Accessed 27 02 2015].

Parmentier, G. & Gandia, R., 2013. Managing Sustainable Innovation with a User Community Toolkit: The Case of the Video Game Trackmania. *Creativity & Innovation Management*, 22(2), pp. 195-208.

Paterson, M. & Higgs, J., 2005. Using Hermeneutics as a Qualitative Research Approach in Professional Practice. *The Qualitative Report*, 10(2), pp. 339 - 357.

Patterson, P., 2000. The Talking Cure and the Silent Treatment: Some Limits of 'Discourse' as Speech. *Administrative Theory and Praxis*, 22(4), pp. 663-695.

Pheonix Strategic Perspectives inc., 2007. *New Technologies and Government of Canada Communications Phse1: Qualitative Research with Canadians*, Ottawa: Agriculture and Agri-Food Canada.

Piotrowski, S. J. & Van Ryzin, G. G., 2007. Citizen Attitudes Toward Transparency in Local Government. *The American Review of Public Administration*, 37(3), pp. 306-323.

- Plauché, G. A., 2011. Immanent Politics, Participatory Democracy, and the Pursuit of Eudaimonia. *Liberterian Papers*, Volume 3, pp. 1-63.
- Posner, P., Conlan, T. & Regan, P. M., 2013. *The Politics of Accountability: The American Recovery and Reinvestment Act of 2009 ARRA*. s.l., s.n.
- Preston, D. & Preston, M., 2005. *A Pirate of Exquisite Mind*. London: Corgi.
- Prince, L. & Puffitt, R., 2001. Trust and distrust in regulation and enforcement. In: G. Johnson & K. Scholes, eds. *Exploring Public Sector Strategy*. Harlow: Pearson Education Ltd., pp. 57-83.
- Ramadhan, A., Sensuse, D. I. & Arymurthy, A. M., 2011. Postmodernism in E-Government. *International Journal of Computer Science*, 8(4), pp. 623-629.
- Ramlo, S. & Newman, I., 2011. Q-Methodology and Its Position in the Mixed-Methods Continuum. *Operant Subjectivity: The International Journal of Q Methodology*, 34(3), p. 172-191.
- Rawls, J., 1993. *Political Liberalism*. New York, NY: Columbia University Press.
- Reece, B., 2006. E-Government Literature Review. *Journal of E-Government*, 3(1), pp. 69-110.
- Rehg, W., 1994. *Insight and Solidarity: A Study in the Discourse Ethics of Jürgen Habermas*. Berkeley: University of California Press.
- Reno-Weber, T. & Niblock, B., 2013. Beyond Transparency: Louisville's Strategic Use of Data to Drive Continuous Improvement. In: B. Goldstein & L. Dyson, eds. *Beyond Transparency*. San Francisco: Code for America, pp. 211-232.
- Rheingold, H., 2008. Using Participatory Media and Public Voice to Encourage Civic Engagement.. In: W. L. Bennett, ed. *Civic Life Online: Learning How Digital Media Can Engage Youth*. Cambridge, MA: The MIT Press, pp. 97-118.
- Robbins, P. & Krueger, R., 2000. Beyond Bias? The Promise and Limits of Q Method in Human Geography. *Professional Geographer*, 52(4), pp. 636-648.
- Robinson, D. G., Yu, H., Zeller, W. P. & Felten, E. W., 2009. Government Data and the Invisible Hand. *Yale Journal of Law and Technology*, Volume 11, pp. 160-175.
- Roelofsen, A., Broerse, J., de Cock Buning, T. & Bunders, J., 2010. Engaging with Future Technologies: How Potential Future Users Frame Ecogenomics. *Science and Public Policy*, 37(3), pp. 167-179.
- Roochnik, D., 2002. *An Introduction to Greek Philosophy*, s.l.: The Teaching Company.
- Rorty, R., 1984. Habermas and Lyotard on Post-Modernity. *Paraxis International*, 4(1), pp. 32-44.

- Rosen, J., 2009. *TNR Debate: Too Much Transparency? (Part III)*. [Online] Available at: <http://tnr.com> [Accessed 5 October 2011].
- Rourke, F. E. & Schulman, P. R., 1989. Adhocracy in Policy Development. *The Social Science Journal*, 26(2), pp. 131-142.
- Rowe, G. & Wright, G., 2011. the Delphi Technique: Past, Present and Future Prospects - Introduction to the Special Issue. *technological Forecasting and Social Change*, Volume 78, pp. 1487-1490.
- Rust, R. T., Moorman, C. & Bhalla, G., 2010. Rethinking Marketing. *Harvard Business Review*, Volume January-February, pp. 2-8.
- Sackman, H., 1975. *Delphi Assessment: Expert Opinion, Forecasting and Group Process*, Santa Monica, California: United States Air Force Project Rand.
- Sager, F. & Rosser, C., 2009. Weber, Wilson and Hegel: Theories of Modern Bureaucracy. *Public Administration Review*, 69(6), pp. 1136-1147.
- Schacht, S., 2010. Democracy, Under Everything. In: D. Lathrop & R. Laurel, eds. *Open Government*. Sebastopol: O'Reilly Media, pp. 153-166.
- Scheff, T., 2010. *The Structure of Context: Deciphering Frame Analysis*. [Online] Available at: <http://www.soc.ucsb.edu/faculty/scheff/main.php?id=43.html> [Accessed 7 November 2013].
- Schlanger, E., 2013. E-Gov: Will the Real "Cyber-Optimists" Please Stand Up?. *Public Administration Review*, 73(1), pp. 176-177.
- Schmidt, E. & Cohen, J., 2014. *The New Digital Age. Reshaping the Future of People, Nations and Business*. London: John Murray.
- Schmidt, V. A., 2008. Discursive Institutionalism: The Explanatory Power of Ideas and Discourse. *The Annual Review of Political Science*, Volume 11, pp. 303-326.
- Schmidt, V. A., 2010. Taking ideas and discourse seriously: explaining change through discursive institutionalism as the fourth 'new institutionalism'. *European Political Science Review*, 2(1), pp. 1-25.
- Schmolck, P., 2012. *PQMethod (Version 2.3.1)*. [Online] Available at: <http://schmolck.userweb.mwn.de/qmethod/#Q-References> [Accessed 04 June 2012].
- Schön, D. A. & Rein, M., 1994. *Frame Reflection. Toward the Resolution of Intractable Policy Controversies*. New York: Basic Books.
- Schön, D. A. & Rein, M., 1994. *Frame Reflection: Toward the resolution of intractable Policy Controversies*. New York: Basic Books.

- Schradie, J., 2011. The Digital Production Gap: The Digital Divide and Web 2.0 Collide. *Poetics*, Volume 39, pp. 145 - 168.
- Scotland, J., 2012. Exploring the Philosophical Underpinnings of Research: Relating Ontology and Epistemology to the Methodology and Methods of the Scientific, Interpretive and Critical Research Paradigms. *English Language Teaching*, 5(9), pp. 9-16.
- Shane, P. M., 2004. The Electronic Federalist: The Internet and the Eclitic Institutionalization of Democratic Legitimacy. In: P. M. Shane, ed. *Democracy Online: The Prospects for Political Renewal Through the Internet*. Abingdon: Routledge, pp. 65-83.
- Simon, G., 2009. *Personalisation, choice and empowerment: a political & economic reality check*, London: Social Market Foundation.
- Smith, L. I., 2002. *A Tutorial on Principal Components Analysis*. [Online] Available at: www.ce.yildiz.edu.tr/personal/songul/file/1097/principal_components.pdf [Accessed 17 December 2012].
- Smith, M. et al., 2010. *NodeXL: a free and open network overview, discovery and exploration add-in for Excel 2007/2010*, s.l.: s.n.
- Snee, H., 2008. *Web 2.0 as a Social Science Research Tool*. [Online] Available at: http://www.restore.ac.uk/orm/futures/Web_2.0_final_v3.pdf [Accessed 11 December 2011].
- Society of Information Technology Management, 2014. *Better Connected 2014: a snapshot of all local authority websites*, Northampton: Society of Information Technology Management.
- Song, F. W., 2010. Theorizing Web2.0. *Information, Communication & Society*, 13(2), pp. 249-275.
- South Oxfordshire District Council, 2013. *Planning targets*. [Online] Available at: <http://www.southoxon.gov.uk/services-and-advice/planning-and-building/application-advice/general-planning-advice/planning-target> [Accessed 28 July 2015].
- Statista.com, 2015. *Statista*. [Online] Available at: <http://www.statista.com/statistics/282087/number-of-monthly-active-twitter-users/> [Accessed 07 June 2015].
- Stemler, S., 2001. An overview of content analysis. *Practical Assessment, Research & Evaluation*, 7(17).
- Stephenson, W., 1992. Self in Everyday Life. *Operant Subjectivity*, 15(2), pp. 29-55.
- Stephenson, W., 1993. Introduction to Q-Methodology. *Operant Subjectivity*, 17(1/2), pp. 1- 13.

- Stewart, J., 2003. *Modernising British Local Government*. Basingstoke: Palgrave.
- Stoker, G., 1998. Governance as Theory: Five Propositions. *International Journal of Social Sciences*, 50(1), pp. 17-28.
- Stoker, G., 2004. *Transforming Local Governance from Thatcherism to New Labour*. Basingstoke: Palgrave.
- Surowiecki, J., 2011. *The Wisdom of Crowds - Why the Many Are Smarter than the Few*. London: Abacus.
- Surrey County Council, 2013. *Confident in Our Future*, s.l.: Surrey County Council.
- Swart, W. T., 1995. The League of Nations and the Irish Question: Master Frames, Cycles of Protest, and "Master Frame Alignment". *The Sociological Quarterly*, 36(3), pp. 465-481.
- Swift, C., 2012. Want to know what tax transparency looks like? Look at Norway. *The Spectator*, 12 April.
- Tanzi, V., n.d. Transition and the Changing Role of Government. *Finance and Development*, 36(2).
- Tat-Kei Ho, A., 2002. Reinventing Local Governments and the E-Government Initiative. *Public Administration Review*, 62(4), pp. 434-444.
- Thaler, R. H. & Sunstein, C. R., 2003. Libertarian Paternalism. *The American Economic Review*, 93(2), pp. 175-179.
- The City of New York, 2011. *Road Map for the Digital City*, New York: The City of New York.
- The Controller of Her Majesty's Stationery Office, 2014. *Open Government Licence for Public Sector Information*. [Online]
Available at: <http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2/>
[Accessed 1 August 2014].
- The Electoral Commission, 2012. *Part H – Access and Supply of the Electoral Register*. [Online]
Available at:
http://www.electoralcommission.org.uk/_data/assets/pdf_file/0007/57931/Part-H-Access-and-supply-November-2012.pdf
[Accessed 22 April 2014].
- The Guardian, 2010. *Iceland to elect citizens' panel to rewrite constitution*. [Online]
Available at: <http://www.guardian.co.uk/world/2010/nov/26/iceland-elect-citizens-rewrite-constitution>
[Accessed 26 August 2011].

The Guardian, 2014. Lessons from LocalGovCamp – a yearly event for local government geeks. *The Guardian - Public Leaders Network*, 29 June.

The Local Government Association, 2014. *Local Authorities Data Transparency Code Local Government Association Response*. [Online]
Available at:
<http://www.local.gov.uk/documents/10180/11541/LGA+Response+to+Data+Transparency+Code+2014-01-17.pdf/b7cfdd74-359d-45ae-af69-94d88b47805e>
[Accessed 18 July 2014].

The Minister of State for the Cabinet Office, 2012. *Open Data White Paper - Unleashing the Potential*, London: TSO.

The Taxpayers Alliance, 2014. *Town Hall Rich List 2014*, London: The Taxpayers Alliance.

The World Internet Project, 2013. *The World Internet Project - International Report Fifth Edition*, Los Angeles,: The World Internet Project.

Thompson, F., 1987. Lumpy Goods and Cheap Riders: An Application of the Theory of Public Goods to International Alliances. *Journal of Public Policy*, 7(4), pp. 431- 449.

Thompson, M., 2008. ICT and Development Studies: Towards Development 2.0. *Journal of International Development*, 20(6), pp. 821-835.

Tocqueville, A. D., 2003. *Democracy in America and Two Essays on America*. London: Penguin.

Townsend, A. M., 2013. *Smart Cities*. New York: W W Norton.

Triandafyllidou, A. & Foutiou, A., 1998. Sustainability and Modernity in the European Union: A Frame Theory Approach to Policy Making. *Sociological Research Online*, 3(1).

Tritter, J. Q. & McCallum, A., 2006. The Snakes and Ladders of User Involvement: Moving beyond Arnstein. *Health Policy*, Volume 76, pp. 156-168.

Tullock, G., 1974. Dynamic Hypothesis on Bureaucracy. *Public Choice*, Volume 19, pp. 127-131.

Valtysson, B., 2014. Democracy in disguise: The use of social media in reviewing the Icelandic Constitution. *Media, Culture and Society*, 36(1), pp. 52-68.

Van Exel, J. et al., 2015. Public views on principles for health care priority setting: Findings of a European cross-country study using Q methodology. *Social Science & Medicine*, Volume 126, pp. 128-137.

Van Exel, J. & de Graaf, G., 2005. *Q-Methodology: A Sneak Preview*. [Online]
Available at: <http://qmethod.org/articles/vanExel.pdf>
[Accessed 18 July 2014].

- Van Gorp, B., 2007. The Constructionist Approach to Framing: Bringing Culture Back In. *Journal of Communication*, Volume 57, pp. 60-78.
- Van Thiel, S., 2007. *Research Methods in Public Administration and Public Management*. Abingdon: Routledge.
- Venables, D. et al., 2008. *Living with Nuclear Power: A Q-method Study of Local Community Risk Perceptions*, Cardiff: ESRC/ University of Cardiff (award RES-336-25-0001).
- Visconti, L. M., 2010. Ethnographic Case Study (ECS): Abductive modeling of ethnography and improving the relevance in business marketing research. *Industrial Marketing Management*, Volume 39, pp. 23-39.
- von Hippel, E. & Katz, R., 2002. Shifting Innovation to Users via Toolkits. *Management Science*, 48(7), pp. 821-833.
- Wallace, M. & Wray, A., 2011. *Critical Reading and Writing for Postgraduates*. 2nd ed. London: Sage.
- Ward, S., Gibson, R. & Lusoli, W., 2003. Online Participation and Mobilisation in Britain: Hype, Hope and Reality. *Parliamentary Affairs*, Volume 56, pp. 652-668.
- Washington Post, 2006. Aiming to Shed Light on Lawmakers. *Washington Post*, 26 April.
- Watts, S. & Stenner, P., 2005. Doing Q Methodology: Theory, Method and Interpretation. *Qualitative Research in Psychology*, Volume 2, pp. 67-91.
- Watts, S. & Stenner, P., 2012. *Doing Q Methodological Research*. London: Sage.
- Wagh, P., 2013. Open Government, What is it really?. In: RedHat, ed. *Open Voices, Applying open source principles to government*. s.l.:OpenSource.com.
- Weber, R. P., 1990. *Basic Content Analysis*. Second ed. London: Sage.
- Weeks, E., 2000. The Practice of Deliberative Democracy: Results From Four Large Scale Trials. *Public Administration Review*, 60(4), p. 360 – 372.
- Weinberger, D., 2009. *TNR Debate: Too Much Transparency? (Part V)*. [Online] Available at: <http://www.tnr.com> [Accessed 5 October 2011].
- Whatdotheyknow.com, 2015. *What do they Know*. [Online] Available at: <https://www.whatdotheyknow.com/> [Accessed 31 July 2015].
- Wheeler, B., 2005. *BBC News*. [Online] Available at: http://news.bbc.co.uk/1/hi/uk_politics/4586995.stm [Accessed 11 October 2011].

- Wikipedia, 2015. *Wikipedia:About*. [Online]
Available at: <http://en.wikipedia.org/wiki/Wikipedia:About>
[Accessed 15 September 2015].
- Williamson, V., Skocpol, T. & Coggin, J., 2011. The Tea Party and the Remaking of Republican Conservatism. *Perspectives on Politics*, 9(1), pp. 25-43.
- Wilson, D. & Game, C., 2002. *Local Government in the United Kingdom*. 3rd ed. Basingstoke: Palgrave.
- Witschge, T., 2004. Online Deliberation: Possibilities of the Internet for Deliberative Democracy. In: P. M. Shane, ed. *Democracy Online: The Prospects for Political Renewal Through the Internet*. Abingdon: Routledge, pp. 109-122.
- Wolf, K. & Fry, J., 2013. Benchmarking Performance Data. In: B. Goldstein & L. Dyson, eds. *Beyond Transparency*. San Francisco: Code for America, pp. 233-254.
- Wolfsfeld, G., Segev, E. S., Sheaffer & Tamir, 2013. Social Media and the Arab Spring: Politics Comes First. *The International Journal of Press/Politics*, 18(2), pp. 115-137.
- WordPress.Org, 2013. *About Wordpress*. [Online]
Available at: <http://en.wikipedia.org/wiki/WordPress>
[Accessed 14 May 2013].
- Worthy, B., 2013. *Survey of English Local Authorities on Open Data (£500 spending)*. [Online]
Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2361428
[Accessed 28 July 2015].
- Woudenberg, F., 1991. An Evaluation of Delphi. *Technological Forecasting and Social Change*, Volume 40, pp. 131-150.
- Wright, D. B., 1997. *Understanding Statistics An Introduction for the Social Sciences*. London: Sage.
- Wright, D. B., 1998. *Understanding Statistics. An introduction for the Social Sciences*. 2nd ed. London: Sage.
- Wu, T., 2009. *TNR Debate: Too Much Transparency? (Part 1)*. [Online]
Available at: <http://tnr.com>
[Accessed 5 October 2011].
- Yanow, D., 1996. *How does a Policy Mean? Interpreting Policy and Organizational Actions*. Washington DC: Georgetown University Press.
- Yanow, D., 2000. *Conducting Interpretive Policy Analysis*. London: Sage.
- Yanow, D., 2003. Interpretive Empirical Political Science: What makes this not a subfield of Qualitative Methods. *Qualitative Methods Section of APSA Newsletter*, Volume Fall.

- Yardley, A., 2008. Piecing Together - A Methodological Bricolage. *Forum: Qualitative Social Research*, 9(2), pp. 1-8.
- Yildiz, M., 2007. E-government research: Reviewing the literature, limitations, and ways forward. *Government Information Quarterly*, Volume 24, pp. 646-665.
- Yin, R. K., 2003. *Case Study Research: Designs and Methods*. 3rd ed. London: Sage.
- Yu, H. & Robinson, D. G., 2012. The New Ambiguity of "Open Government". *UCLA Law Review Discourse*, Volume 59, pp. 178-208.
- Zikopoulos, P. C. et al., 2012. *Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data*. New York: McGraw-Hill.
- Zúniga H, V. A. V. E. a. S. D., 2010. Digital Democracy: Reimagining Pathways to Political Participation. *Journal of Information Technology and Politics*, 7(1), pp. 36-51.

Appendices

Appendix 1 - O'Reilly's Definition of Web2.0 (O'Reilly, 2005).

1	Web as a Platform	<p>The Internet serves as a hosting platform. A platform that is able to support an infinite volume of applications independently produced and packaged for use on a common access platform available across all types of equipment. The platform may be seen in contrast to the vendor specific, proprietary application. The platform enables the application to function and to exist in competition with other applications. The difference inherent in this can be seen between the first Apple iPhone and its application store and then market leading Nokia phone, which came loaded with all the functionality its developers decided you should have.</p>
2	The Power of Collective Intelligence	<p>The ability to harness users' knowledge and experiences as an integral part of the product is a central principal and point of differentiation between Web2.0 and its predecessor.</p> <p>Amazon and Wikipedia have both developed their products upon "architecture of participation". For Amazon, this ability to engage with users and to harness both their product experiences in the form of independent reviews and the purchase history allows them to offer customers personalised recommendations based upon the combined experience of millions of users. Using the same logic of participation, Wikipedia has built a respected</p>

		<p>alternative to the traditional encyclopaedia based on the principle of trusting a community to create the content and monitor its accuracy, harnessing the collective knowledge and expertise across thousands of subjects.</p>
3	Data Inside	<p>Advances in the development of the silicon chip as a cheap, reliable and scalable technology allowed the development of home computers. In the same way that this raw technology unleashed a range of new possibilities, open and accessible data has the same potential power. Open data services such as GoogleMaps has allowed a host of applications to be developed, and the analysis of data, such as the UK NHS prescription data has identified the potential for massive savings.</p> <p>The analysis of massive quantities of data, so called “Big Data” offers the opportunity for not just personalised product recommendations but according to Townsend (2013) to revise the way in which cities are managed and governed.</p>
4	Perpetual Beta	<p>The Web1.0 world was governed by notions of completion and of release cycles. The release cycle, for software developers is the process for releasing into live the next completed iteration of the product; at the point of release it should be perfect. The perpetual beta suggest that the release is made when the product is still being developed, allowing users to be involved in its development, harnessing their collective intelligence, and accepting that no product is ever perfect or indeed complete.</p>

		<p>This process can be seen as an implementation of the postmodernist principle of the rejection of certainty and embracing of multiplicity (Lyotard, 2004).</p>
5	Lightweight Accessible Programming	<p>Lightweight programming models are those which support the rapid development of functionality that can be released in its perpetual beta format, and which allow other applications to interact via web services, such as SOAP (Simple Object Access Protocols) or XML data over HTTP service known as REST (Representational State Transfer).</p> <p>These models allow interaction with the application and its data through formal interfaces, known as APIs. Lightweight programming models are intended for “hackability” and for content to be shared and re-used. Lightweight models of programming allow content to be shared, or syndicated, and open the possibility of “some rights reserved”. A model that can be seen in contrast to the traditional “all rights reserved” licencing models used by proprietary software producers. The principle of syndicating data outwards and then losing control over its future uses is a fundamental aspect of the Internet, known as the end-to-end principle.</p>
6	Shared Rights	<p>The intellectual property associated with the reuse of proprietary services limits their ability to be reused and prevents free experimentation and development of new services based on that initial work. These controls do provide protection to the initial creator and the ability to monetise their work, and so is an important element in their development. However for</p>

		<p>services that are publically funded or that are developed as a result of publically available data, use of models such as the “Creative Commons” licence allows for the retention of some rights, while sharing others.</p>
7	Co-operation not Control	<p>Web services are built upon a co-operative and shared network that is inherently without a single identifiable owner. Data is the fundamental resource of this shared network, and is a resource that if syndicated can be built upon and from which new services can be developed. Co-operative provision of data, provided with a shared rights licencing model, especially with data that is developed as a result of taxation funded activity that has essentially been paid for once by the public enables a new rich resource for others to benefit from. These data exhibits the features of a public good, in that sharing with one individual does not preclude sharing with others (non-rivalrous), and it can be provided equally to all potential users (non-excludable).</p>
8	Software Across Devices	<p>Providing software above the level of a single device, or interface method allows the use of the same software on mobile, tablet and desktop operating systems. The shift in devices from the single desktop PC to adopt the use of a range of devices, including mobile has been significant. 61% of those in the OxIS survey are reported to have two or more computers, 91% mobile phones, 22% Internet enabled TV (Dutton, et al., 2013). With the advent of the Internet of things, the interconnection of a range of devices, from coffee machines that tweet your addiction, to the fabled fridges that are able to tell you when you have</p>

		<p>run out of something, or even order it for you (Townsend, 2013) are expected to be made available to consumers. Products such as these will be judged upon whether they deliver a genuine benefit to the consumer, or if they are considered to be technology for its own sake.</p>
--	--	--

Appendix 2– Data Collection Instruction for Gov2.0 Practice investigation

The following provides guidance on the method used to review local authority websites. This guidance is intended to allow further studies to be conducted using an identical methodology.

All functionality and data availability is to be scored on a scale of 0-3 using the following guidelines. Examples of each level of functionality are included for each area of investigation in the following table in appendix 3.

In conducting the content review, it is expected that the majority of data will be located in the appropriate service area of the Council, with a specific date transparency or open data page within the “Council and Democracy” section. Searching should be carried out as if one were a member of the public. If information is only available to those who use specialist language within search engines, the information must be considered to be “hidden”.

Scores are recorded on the score-matrix. It is important that the date of the search is recorded, as due to the fluid nature of the web and online contents, scores when revisited may be different if new information is published.

The volume of links for each website can be found at www.alexa.com. This information should be recorded on the date of the search. This information is used to demonstrate the level of interactivity into the website, and its position as a community hub. The higher the volume of links in, the greater connectivity to the website, the stronger assumed position as a community resource.

Coded scores for functionality and information availability:

0 – No functionality or information is present. Not possible to find by searching or use of the Council’s own website search function.

1 – Information or functionality is found. Information is hard to find (only found via the website search function) or is poorly accessible. Data is in PDF or other locked

down format, or protected by licence from reuse.

2 – Information or functionality is found easily, without need for the search facility. Data is in an accessible format. Evidence is presented the functionality meets the anticipated level.

3 - Information or functionality is found easily, without need for the search facility. Data is in an accessible format. Higher level information or functionality is provided, such as geographical plotting data, monthly spend rather than quarterly. Evidence is presented that the authority has moved beyond the expected level.

Appendix 3 – Functional delivery coding structure

Aspect	Functionality or data	Level	Example of functionality at level
Local Government Transparency Code (Department for Communities and Local Government, 2014)	Expenditure exceeding £500	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Quarterly data available in PDF format only.
		2	Monthly data available in PDF and CSV or Excel.
		3	Monthly data available in multiple formats and with analysis tools/support (for example searchable).
	Government procurement card transactions	0	No functionality or information is present. Not possible to find by searching or use of the Council's own Local Government Transparency Code website search function.
		1	Quarterly data available in PDF format only.
		2	Quarterly data available in PDF and CSV or Excel.
		3	Quarterly data available in multiple formats and with analysis tools/support (for example searchable).
	Procurement information	0	No functionality or information is present. Not possible to find by

			searching or use of the Council's own website search function.
		1	Procurement data available in PDF format only.
		2	Searchable contracts register and list of current opportunities.
		3	Detailed and searchable contracts register, searchable tender opportunities system.
	Local authority land & property holdings	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Asset register held only as PDF.
		2	Searchable asset register.
		3	Asset register integrated into GIS system, able to download information to third party software.
	Grants to voluntary, community and social enterprise organisations	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Information published as PDF, or within other information as PDF.
		2	Annual information published as CSV or Excel.
		3	Searchable and downloadable in multiple formats.
	Organisation chart	0	No functionality or information is present. Not possible to find by searching or use of the Council's

			own website search function.
		1	Structure chart in PDF within another document.
		2	Static PDF of structure. Stand-alone document on the website.
		3	Interactive document. Links to other information about the posts on the structure chart.
	Parking revenues	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Revenue information is within published financial accounts.
		2	Revenue information is within annual parking services report.
		3	Revenue information is explicitly published.
	Number of controlled parking spaces	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Information is located in multiple locations (e.g. details on each individual car park) not collated.
		2	Information is within annual parking services report.
		3	Information is explicitly published, and linked to GIS functionality to identify controlled spaces.
	Senior salaries	0	No functionality or information is present. Not possible to find by

			searching or use of the Council's own website search function.
		1	Published in PDF within another document.
		2	Static PDF or stand-alone document on the website.
		3	Interactive document. Links to other information about the posts and their responsibilities.
	Constitution	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Published in PDF within another document.
		2	Static PDF or stand-alone document on the website.
		3	Interactive document. Links to other information about the constitution and its purpose.
	Pay multiple	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Published in PDF within another document.
		2	Static PDF or stand-alone document on the website.
		3	N/A
	Transparency	Register of members interests	0

			own website search function.
		1	Information published only in PDF format only.
		2	Information published as part of the details of each elected member. No separate search function.
		3	Information published as a separate, searchable and/or downloadable document.
	Monthly payments	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Monthly expenditure data available in PDF format only.
		2	Monthly data available in PDF and CSV or Excel.
		3	Monthly data available in multiple formats and with analysis tools/support (for example searchable).
	Open data warehouse	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Links to data for the Council and other local data co-located on the website.
		2	All open data about the council in a single, searchable location, download functionality provided.

			Hosting their own data and data about the area gathered from elsewhere.	
		3	Full open data warehouse containing Council and other organisations (e.g. health) and local data. Has some built-in analytical functions.	
	Open API	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.	
		1	Proprietary API provided, data access at cost.	
		2	Open source API provided. Guidance provided on API calls.	
		3	Open source API provided, with explicit use instructions for non-expert use.	
	Data format	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.	
		1	Majority of data and information provided in PDF or plain text format.	
		2	Majority of data and information provide in CSV or Excel format.	
			3	Majority of data and information provide in multiple formats.
	Open licence	0	No functionality or information is present. Not possible to find by	

			searching or use of the Council's own website search function.
		1	All information governed by LA copyright, no reproduction or reuse without express consent.
		2	Open Government or Creative Commons licence is referenced for open data. Other data not explicitly covered by this.
		3	All published information governed by Open Government or Creative Commons licence.
	Performance reporting & data	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Annual review in PDF published.
		2	Quarterly Reviews of performance in PDF format.
		3	Performance data published in a searchable and downloadable manner. Trend information is available.
	Broadcast of Council meetings	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Audio only broadcast is provided.
2		Web video broadcast is provided, only for some meetings. No archive or very narrow range of meetings (e.g. only full Council).	

		3	Web video broadcast and archive of previous broadcasts. Wide range of meetings covered.
	FOI disclosure log	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	A list of FOI requests received over a period published.
		2	FOI requests and responses published.
		3	Searchable functionality for FOI requests and responses. Archive of requests previously made and responded to.
Social Engagement		Co-design of Services	0
	1		Service design consultation. No evidence of how the consultation is used.
	2		Evidence of consultation over service design and publication of council response to consultation.
	3		Evidence of comprehensive and systematic resident involvement in the design of services.
	Online consultation system and archive	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.

		1	List of consultation activities undertaken.
		2	Searchable consultation system with details of each consultation shown.
		3	Searchable consultation hub, hosting consultations for other organisations.
	Publication of consultation responses	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Some acknowledgement of LA response to consultations.
		2	All consultations showing a Councils response, in a "you said-we did" type format.
		3	All consultations showing a response from consulting organisation, in a "you said-we did" type format. Evidence of criticality of consultation to Council policy/service design.
	Online petition system	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Email only system. Details of how the authority will respond to petitions.
		2	Own "brand" e-petition system, able to set-up and manage

			petitions for a single location. Simple method for public to sign petitions.
		3	Own "brand" petition system and reference made to third party, web based consultation systems. Evidence of how petitions have influenced the Council.
	Co-decision around services (public decision making)	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Use of consultation and survey techniques as part of the decision making processes.
		2	Evidence of some inclusion of the public within the decision making process, beyond basic survey techniques. Could include local area for a.
		3	Evidence of a significant volume of decisions made in conjunction with the public, for example local delegated budget panels.
	Use of social media to alert or inform users to services	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Narrow range of social media used, narrow range of messages.
		2	Wide range of social media used to broadcast messages.

			Messages encouraging connectivity between users and between users and the council.
		3	Wide range of messages for a range of organisations, over a wide range of social media. Evidence of social interactivity.
	Use of social media to deliver services	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Consultations and links to Council services highlighted on Social media. Little or no evidence that social media is being used to identify and resolve resident service needs.
		2	Residents able to raise service requests via social media. Evidence that any requests raised responded to.
		3	Residents actively encouraged to raise service requests via social media. Evidence of resolution to these requests.
Platform Provision	Co-production of services	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Limited co-production of services; confined to Adult Social Services.

		2	Tools for wider co-production such as report-it type mobile applications provided.
		3	Wide or general strategy for co-production of services directly with residents or with the third sector.
	Open data mash-ups and sponsored hack days	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	General invitation to developers to be involved. No evidence of competition or organisation. No links to open data or Hacktivist groups (e.g. Big Innovation Centre in Camden Council or OpenSource.com).
		2	Invitation to developer community to be involved. Limited or sporadic competition approach. No evidence of strategy.
		3	Organised hack days and app design competitions held regularly. Evidence of a strategy to broaden the base of development of services. Evidence of the authority working with open data or Hacktivist groups (e.g. Big Innovation Centre in Camden Council or OpenSource.com).

	Open data warehouse	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Links to data for the Council and other local data co-located on the website.
		2	All open data about the council in a single, searchable location, download functionality provided. Hosting their own data and data about the area gathered from elsewhere.
		3	Full open data warehouse containing Council and other organisations (e.g. health) and local data. Has some built-in analytical functions.
	Data format	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Majority of data and information provided in PDF or plain text format.
		2	Majority of data and information provide in CSV or Excel format.
		3	Majority of data and information provide in multiple formats.
	Open API	0	No functionality or information is present. Not possible to find by searching or use of the Council's

			own website search function.
		1	Proprietary API provided, data access at cost.
		2	Open source API provided. Guidance provided on API calls.
	3	Open source API provided, with explicit use instructions for non-expert use.	
	Applications developed to deliver services by LA or other party	0	No functionality or information is present. Not possible to find by searching or use of the Council's own website search function.
		1	Low number of in house applications developed for access to Local Authority services.
		2	Variety of applications available to access LA services from a variety of devices. Applications building upon and utilising LA data.
3		LA presence on application "stores". Multiple applications available from multiple developers using LA information as the basis for the services (e.g. London tube map applications).	

Appendix 4– Q-methodology Statement initial sample selection matrix

	Transparency	Social Engagement		Platform Government	
	– Free and open information <i>(Statement number)</i>	Social Collaboration Citizens working together <i>(Statement number)</i>	Participation Government Trusting the citizen <i>(Statement number)</i>	Government hosting not only providing them. Top down, Predefined Roles challenged <i>(Statement number)</i>	‘Unengineering’ the system. Defining government in favour of the citizen <i>(Statement number)</i>
Definitive (meaning of terms)	2,21,	5,18	3,33	14, 37	
Evaluative (worth or value)	10, 35	15,16,36	9,7,20,28	38,19, 41	
Advocative (whether it should or should not be)	22,24,34	30,41,25	6,17,27	8,27,31	
Principles (statements of belief)	11, 29, 40	12,26,39	4, 25	13,1,32,23	

Appendix 5 – POET-Q pilot test data

Test Area	Pass/Fail	Comments
Multiple browser use (Chrome, Safari, Firefox & IE8)	Pass	None.
E-mail send facility	Pass	It is not desirable to use this as it make the identification of individuals possible. This is undesirable within the research design and contrary to ethical approval.
Ease to log-in (embedded hyperlink)	Pass	None.
Ease to log in without emailed hyperlink	Pass	PoetQ records these separately, but within a single DAT file output.
Ability to enter sorts off-line	Fail	PoetQ is an online only system. Use in an off-line context is not feasible.
Ease of use of initial questions – sliders	Pass	Comments from pilot users suggested that this worked well. Question however over whether these could be at the end of the Q sort
Understanding of initial questions	Pass	Questions well understood by pilot study participants. All reported that the questions were easy to answer and not invasive.
Relevance of initial questions	pass	No comment received on this.
Q Sort instructions	Pass	Pass, however some comment seeking minor improvements in the instructions provided. None of the test subject failed to complete the

		survey.
Initial sort process	Fail	The initial sort takes too long. The process is fine, and works well. One request for greater detail in the instruction that statements can be moved from one "pile" to another.
Thinning sort instructions	Pass	Instructions were simple and easy to follow.
Thinning sort process	Pass	Process takes a bit too long and gets repetitive. Problem of people only looking that the top half of the screen identified.
Statement volume	Fail	54 is too many, ideally no more than 40. One respondent proposed 25.
Statement length & content	Pass	Statements can feel repetitive and some of the negative statements confusing.
Completion	Pass	Simple completion of the study and opportunity to discuss +/-5 statements was welcomed by those who took part.
Overall fitness for purpose.	Pass	With some changes to the statements and improvements to the instructions identified.
Downloading *.STA and *.DAT files	Pass	Downloading simple (Google Chrome) and use in PQ-method validated.

Appendix 6 - Instructions provided to P-set participants

Participants are presented with an initial welcome splash screen followed by the conditions of instruction:

Introduction

Welcome, and thank you for agreeing to take part in this study into the opinions of Local Government Officers on the subject of Gov2.0.

The phrase Gov2.0 has come to mean a combination of previously disparate ideas around transparency of public sector information; public use of social media use in discussion of policy and service delivery; Internet based public participation and the shift of government to open the doors of aspects of service provision to alternative public providers.

This study is designed to be straight forward to complete and there are instructions throughout in order to support you in responding to the questions set out on this site. If you are stuck at any point then click the help button which you should see in the top right hand corner and guidance here should assist you.

The survey should take no more than 20 minutes to complete. If you need to leave at any point then simply make sure that you have completed that section of the survey and pressed the next button in the bottom right hand corner, upon re-entry you will return to the last place you saved data from.

Thank you.

Appendix 7 - The Conditions of Instruction

The phrase Gov2.0 has come to mean a combination of previously disparate ideas around transparency of public sector information; public use of social media use in discussion of policy and service delivery; Internet based public participation and the shift of government to open the doors of aspects of service provision to alternative public providers. Thinking about your views on this, please sort the provided statements in order which best describes your agreement or disagreement to these statements. Please sort the statements so **+4** is the statement you most agree with; and **-4** that which is most disagree with.

Appendix 8 – Supplementary Questions

Please select your gender.	Male/Female
Please enter your year of birth (YYYY, e.g.. 2012)	
Your level in the organisation you work for	Elected Member Employee Manager Senior Manger None of these
Please enter your current job title	
Is the organisation you work for a...	Unitary Council London Borough County Council District Council Parish Council Other
Details of Other	

About the subject

I understand the concept of Gov2.0.

I am aware of the implications for the authority that I work in arising from Gov2.0.

My authority would encourage people to develop applications or services that use our published data.

My authority is keen to encourage and engage in social media debate on policy issues.

My authority is working to put in place the tools for information transparency.

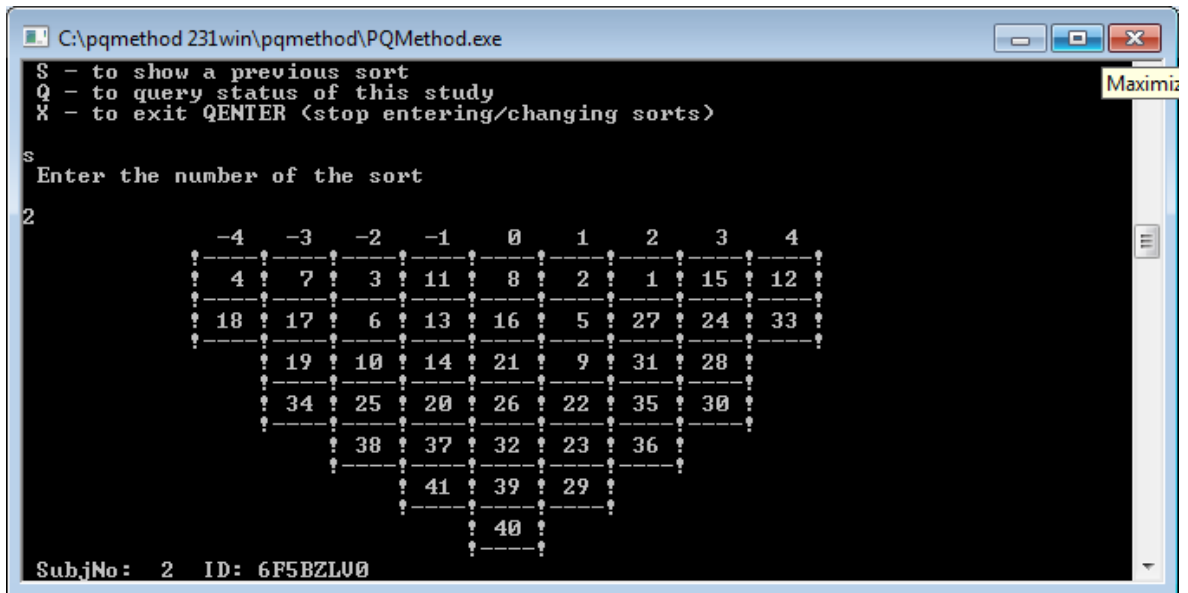
My authority would consider public participation in council decisions.

People want to engage with Local Government on policy, not just service delivery questions.

Citizen Opinions are as valuable as data driven facts.

Appendix 9 – Completed Factor Array

Completed factor Array in PQMethod



The screenshot shows a window titled "C:\pqmethod 231win\pqmethod\PQMethod.exe". The window contains a text-based interface with the following content:

```
S - to show a previous sort
Q - to query status of this study
X - to exit QENTER (stop entering/changing sorts)

$
Enter the number of the sort
2
```

-4	-3	-2	-1	0	1	2	3	4
4	7	3	11	8	2	1	15	12
18	17	6	13	16	5	27	24	33
19	10	14	21	9	31	28		
34	25	20	26	22	35	30		
	38	37	32	23	36			
		41	39	29				
			40					

SubjNo: 2 ID: 6F5BZLU0

Appendix 10 – The Full Factor Array.

	Statement Text	Frame (Factor)			
		1	2	3	4
1	When citizens are ignorant, it's much easier for waste and fraud to flourish.	1	1	0	1
2	Technology has shifted the way we think about access to information.	1	4	3	2
3	Transparency of information means anyone can access anything, anytime anywhere	0	-4	-1	-2
4	You can trust strangers to act rationally.	-1	-3	-2	-3
5	Digital technology empowers local communities.	1	3	1	0
6	Most people are really busy, so expecting them to take time to really understand complex issues is unreasonable.	-2	-1	1	3
7	The public don't have much new to say, that professionals have not already thought of.	-3	-1	-1	-3
8	People should be able to buy the services that they want, from who they want and local government should ensure that they are OK.	-1	0	-3	4
9	The existing legislative framework for information management is sufficient for public access.	-1	1	0	-1
10	It is more important to protect privacy than to ensure information transparency.	-2	0	0	-2
11	Increased transparency and public access to policy discussions risks reducing the ability of officers to look at unpalatable options.	-2	-1	0	1

12	A wide diversity of opinions produces better answers than a few experts ever can.	2	-1	-2	3
13	All voices are equal in a public policy and decision making process.	1	-3	-1	-4
14	Officer discretion is the theft of popular sovereignty.	-1	-2	-4	1
15	People are willing to take part in local decision making for selfless reasons.	0	-2	-1	-1
16	Collaboration with the public is better than delegation to the public.	3	3	4	2
17	Local democracy is a sham, and that is not going to change.	-3	-2	-4	-1
18	Good decisions can only be made by paid experts.	-4	-3	-2	-4
19	Technology will not make local government stronger.	-2	-2	-2	-2
20	People are more interested in debates around service delivery than policy formation.	-1	2	1	3
21	Local Government information is public property and should be treated as such.	2	-2	2	0
22	Local authority data must be put in its proper context when published.	1	4	2	1
23	There is a demand from the public to use data to develop new online services.	0	2	0	-3
24	Transparency should include conversations between citizens, companies and councils delivering public services.	2	2	4	0
25	People don't care about their local areas enough to participate in policy debates.	-3	0	0	0
26	There is demand from residents to engage with the council using social media.	2	1	1	-1

27	Public participation should be incorporated into all local policy and decision making processes.	4	0	1	1
28	If we invite people to take part they might not be interested.	-1	1	3	-1
29	Improving public accountability at all levels of a council is vital.	4	0	2	2
30	Policy debate and decision making should be a search for public consensus.	1	0	-3	-2
31	Local Government should be an enabler and not necessarily a provider of services.	0	2	-1	3
32	Local Government needs to take more advantage of the Internet.	3	3	3	0
33	People generally engage with Councils on an issue by issue basis.	0	3	3	4
34	Local authority data and information must be open by default.	3	-4	1	0
35	Greater public participation and information transparency will drive improvement.	3	1	0	2
36	An open policy dialogue requires rules.	0	1	2	1
37	Transparent, accountable and accessible government is just meaningless hype.	-3	-1	-3	0
38	Local government is fine the way it is, and does not need to change.	-4	-3	-3	-3
39	We are moving towards an era of democratic co-design.	0	2	-2	-1
40	Taxpayers must be able to follow their pound wherever it is spent.	2	0	1	2
41	Design or delivery of services by residents should not be encouraged because it will lead to unfairness.	-2	-1	-1	-2