The online life of individuals experiencing socioeconomic disadvantage: how do they experience information?

Introduction
Information influences our development, life choices and is "crucially central to all aspects of our life choices" (Kemeny, Harland, Colby, and Raby, 2013, p. 309). Access to information is critical to not only help access education and employment, but in using information we develop our identity through an understanding of the culture we live in, and our place in it (Kemeny, Bajada, and Rees, 2005; Webster, 2014).

Today much of the information essential for everyday life and improving our circumstances is available online (Becas, 2011; Webster, 2014). Those with the ability to access information online are therefore able to take advantage of more opportunities and this gap is often visible, urban, middle class individuals with socioeconomic advantages (Klemen, 2015). Individuals experiencing socioeconomic disadvantage could arguably derive the most benefit from being online. However, the reality is they are among the least likely groups to have unrestricted online access (Wright, Rip, Spigner, and Fitzgerald, 2013).

The Australian Bureau of Statistics (2014) defines "relative socioeconomic advantage and disadvantage is determined by people's access to material and social resources and their ability to participate in society". Socioeconomic status impacts upon all aspects of our lives, including our ability to access and find online information (Australian Bureau of Statistics, 2014). As being socioeconomic disadvantaged can limit an individual’s access to resources and participation in society, improving the socioeconomic status of individuals can be seen as an overarching goal of government and non-government organisations.

Much research has shown a link between digital exclusion and socioeconomic disadvantage, and digital inclusion is often viewed as a way to improve socioeconomic status (van Dijk, 2013). There is a need for the government to access the Internet will allow all individuals access to the same information and the ability to derive the same benefits (Foley, 2004). However, this view does not adequately acknowledge the complicated relationship between information access, knowledge, and power.

The way a person uses digital technology is influenced by factors such as their education and literacy as well as their perceptions of how useful the digital environment will be for them (van Dijk, 2004). It cannot be assumed that all those who are experiencing socioeconomic disadvantage, even individuals with low education or literacy, will not use the value in going online. Indeed it has been asked whether a mobile phone be seen as more important than food and shelter to socioeconomic disadvantaged groups like homeless (Le Bouer, 2008).

As the digital environment provides opportunities for different types of interaction, digital exclusion is a complex issue. It is not a simple digital divide, but rather a nuanced concept that takes into account not only access to technology, but also how and why technology is used and the impact of one or non-use on individuals' lives. Through the use of phenomenology this exploratory pilot study investigated the ways that digital exclusion is experienced by individuals experiencing socioeconomic disadvantage, taking a holistic view of information, with the understanding that information affects all aspects of our lives.

Literature review
This section analyses the literature surrounding digital exclusion. Based on the literature we have identified three different digital exclusion or inequality may be experienced. These three categories are:

1. the access digital divide
2. digital social inequality (including being digitally information poor)
3. digital economic inequality

Each of these categories may be experienced separately or simultaneously. The basis of these categories can be traced back to the work of van Dijk (2004) and the four barriers he proposed to online information access:

1. lack of elementary digital experience caused by lack of interest, computer anxiety, and unsuitableness of the new technology (motivational access)
2. lack of possession of computers and network connections (material or physical access)
3. lack of digital skills caused by insufficient user friendliness and inadequate education or social support (skills access)
4. lack of significant usage opportunities (usage access)

van Dijk's barriers are hierarchical, with motivational access being the first necessary component before we move on to the next stage of usage.

The access digital divide
The access digital divide refers to the second of van Dijk's (2004) four barriers to online information access, namely lack of physical or material access. The access digital divide was the way the digital divide was initially imagined (van Dijk, 2006). While imaging the digital divide solely in terms of access to digital technology is problematic, it is important to acknowledge that a gap does still exist between those with and those without (Becas and Ferrer, 2011).

Using the term access digital divide allows a nuanced understanding to emerge. Access digital divide can be taken to mean the advantages and disadvantages individuals have dependent on their level of access (high speed unlimited access versus limited connectivity), or place of access (at home versus in public and/or at work) (Wright, 2009).

The way that individuals access the Internet affects both the amount of information and the type of information they access because they may be forced to choose between competing information needs due to time constraints, autonomy of use and internet filters (Baum, Norman, and Bedford, 2015).

Digital social inequality
Social inequality in the digital environment refers to the ability of individuals to develop and maintain social relationships online that contribute to their overall wellbeing. As more people tend to socialise online, the Internet has become one of the central spaces in which to interact with others (McKenna, Green, and Smith, 2001). This is particularly true for those low income because it is easier to connect via ‘the Internet than to contact someone by telephone, particularly when keeping in touch with friends and family oversees (Foley, 2004).

The Internet can help people access social capital (Wright, 2009). Social media are an important source of information, providing anything from advice about health care to information about job opportunities (Fisk, 2005; Wright, 2005). In particular social media is designed to be easy to use, and can allow those who may be excluded in other digital arenas to access information and interact with organizations, from banks to libraries to educational providers, in new ways (Bennett and Cribb, 2015).

A subset of social inequality online is being digitally information poor, according to Chatman's (1993) theory of information poverty. Individuals who are information poor are typically from marginalized groups, such as the economically poor. Those who experience information poverty include those who engage in the use of knowingly deprecating themselves of information sources by deliberately not accessing information that could be useful, due to mistrust or fear (Chatman, 1993).

Becas (2012) contends that digital information poverty may be due to the fact that individuals are overwhelmed by the amount of information that they are confronted with, an information overload, or “helplessness in the face of the information overload” (p. 276). However digital information is now becoming part of everyone’s life. Whether individuals are able to access technology or not, their everyday lives are affected by society’s increasing reliance on technology and digital information (Le Denter, 2009).

This type of inequality has been imagined as a skills gap by van Dijk (2005). However it is also associated with a lack of social support and knowledge: individuals who are socially connected will be able to make sense of what they are encountering, and may access online resources to augment their knowledge base. Individuals who are socially isolated may be less likely to access online resources and support, and may rely on their local support networks (van Dijk, 2005).

Contextual digital deprivation theory recognizes the different ways digital social inequality can be experienced (Eauvert, 2009). Using the relative deprivation theory allows researchers to examine the motivations of individuals who choose not to engage or not to engage in the digital world, whilst relative digital deprivation theory is not used as a framework in this study; like Hudson we recognize the need to look in depth at individuals’ circumstances with digital exclusion rather than assuming both a relationship and solution.

Digital economic inequality
Economic inequality or exclusion in a digital environment is taken to mean being unable to derive economic benefit from the digital world, through a variety of means. Jobs opportunities are more likely to be advertised online and many employees will only accept online applications. In terms of employment, digital economic inequality is also associated with the access digital divide. As more and more jobs require online skills, those without access and hence the capacity to develop these skills are left behind (Wright, 2009). Again digital economic inequality can be associated with a skills gap, lack of social support and knowledge (Eauvert, 2009).

Government departments and other organizations are moving many of their services online. There are some services and products that organizations only offer online, or there may be discounts offered for online purchase (Wright, 2009). An Australian study found that having the skills to use a smart phone allowed

...
Digital exclusion – a complex issue

As technology use becomes more prevalent amongst people in developed countries, technology is also becoming part of the everyday lives of individuals experiencing socioeconomic disadvantage. Whether they are able to access technology or not, the lives of individuals experiencing socioeconomic disadvantage are affected by society's increasing reliance on technology (Lea, 2005). Technology is used for a variety of necessary everyday interactions: applying for food aid, applying for welfare payments, accessing information about local services, and maintaining connections with friends and family. Thus, limited access to technology can have a significant impact on individuals who are experiencing socioeconomic disadvantage (Lea, 2005).

Research into the relationship between digital exclusion and socioeconomic status has focused mainly on the economic impacts of digital exclusion, specifically on the cost of individuals being unable to access information related to education, employment, and health and government departments (Brown, Stitt, Turner, and van der Sman, 2015). While digital exclusion impacts individuals economically, its ability to access online networking and communication tools affects the social aspects of their lives (Herpe, 2009). Digital exclusion is increasingly recognised as a complex phenomenon that can be experienced in numerous ways and is not necessarily linked to social or economic status (Herpe, 2009; van Dijck and Hulsebos, 2014). To understand the complex nature of digital exclusion, it is useful to look at it in the digital divide model, in which digital exclusion is described as the third level of the digital divide (van Dijck and Hulsebos, 2014). The first level of the digital divide is related to access to the digital world, the second level of the digital divide is related to motivation to access the digital world, whereas digital exclusion (the third level) relates to the way individuals gain benefit from being online.

If digital inclusion is taken to mean that individuals will make the best use of digital technology for their own needs, then the needs of each individual must be considered valid, no matter what they are. The way that individuals can meet those needs and derive benefit (the third level of digital divide) is critically important (van Dijck and Hulsebos, 2014). By examining the lived experiences of socioeconomically disadvantaged individuals, this paper aims to add to the knowledge base surrounding the relationship between socioeconomic disadvantage, access to, and use of technology. This study addresses the gap in the literature about digital exclusion in everyday life.

Research approach

This phenomenological study brings a fresh perspective to the problem of being digitally excluded, offering theories about why someone is digitally excluded and the steps that can be taken for them to become digitally included. Most of these studies are quantitative and come from a top-down perspective, the theory being imposed on the group by the researcher from above. This study instead took a holistic view, using phenomenology to examine the entire online information experience of socially excluded people. It also offers critical insights into current theories of technology and participants' lived experiences, ways that socially excluded individuals may or may not experience digital exclusion will be illuminated.

Viewing information experience as a research object allows us to explore the online information experience of the individuals experiencing socio-economic disadvantage in a holistic way. We can examine more than the skills needed to access information, but the broader information experience which is understood as:

the way in which people experience and derive meaning from the way in which they engage with information and their lived worlds as they go about their daily lives and use their digital objects, databases, and tools.

Phenomenology

Phenomenology was the methodological approach adopted for this study as it involves exploring the lived experience of a particular phenomenon (van Maanen, 1997). It allows researchers to study the lived experience and reveal the essence of a phenomenon (Creswell and Miller, 2000). Thus, uncovering and describing the essence of a phenomenon is the main goal of scientific investigation. In this study, the phenomenon of digital exclusion is examined in the context of everyday life, and their interrelationship (Brown and Hillman, 2016). Phenomenology proposes that different theories and assumptions about the nature of a relationship or phenomenon are in a common process that can be observed through the awareness and understanding of information experience of people experiencing socioeconomic disadvantage. To have any chance of solving digital exclusion we must first understand the experience of individuals experiencing socio-economic disadvantage. Through a study of information experience, which focuses on participants' lives, we can gain this vital understanding.

The way in which people experience and derive meaning from the way in which they engage with information and their lived worlds as they go about their daily lives and use their digital objects, databases, and tools.

For this study phenomenological interviewing was used to collect data. Phenomenological interviews focus on gathering enough material consisting of stories (incidents, events, and experiences) relevant to understanding a phenomenon in order to understand people's experiences (van Maanen, 1995). The interview questions were carefully formulated to draw these experiences from participants in a semi-structured interview that allowed their information experience to be explored in a natural way.

Participants

In phenomenology the researcher seeks to collect data from participants who have experienced the phenomenon (Creswell, 2012). The two participants for this pilot study were low socioeconomic status as defined by the Australian Bureau of Statistics (2017). Data from participants were anonymous and both participants have given permission for this article, as this was an exploratory pilot study for doctorate research the aim of the study was to establish that the concepts were worthy of further research, thus the sample size is limited to two participants. The participants were selected into the study via flyers displayed in housing providers' offices.

The first participant, Alice, was a 54 year old single mother of five children living in a western Brisbane suburb with her two youngest children and her brother. Alice left school at the age of 14, was unemployed at the time of the research and had been the past four years. She was not working at the time, and relied on government assistance for her income. Alice had experienced homelessness in the past, and was currently marginally housed, that is housed in accommodation that is short-term or unusual, in a rental accommodation.

The second participant, Susan, was a single mother of one child, who identified herself as between 25-35. Susan was born in Libya and emigrated to Australia as a toddler. She finished school in Year 11 and was unemployed and relied on government assistance for her income and accommodation, living in community housing in a northern Brisbane suburb.

Both participants had intermittent access through the Internet via their mobile phones and used pre-paid data plans.

Data explication

Following the interview the lead author searched for themes with the aim of uncovering the structure of meaning of the participants' lived experiences. This initial analysis was guided by van Maanen's fundamental elements that were originally conceptualized to understand lived experience in the physical world, they were applied to the online world for this study. While lived space can refer to the feeling of a physical space such as your house, for example the differences in feeling between a church and a train station, this can also be applied to online spaces and the feelings one has when online. This paper hopes to explore the digital lived experience in the online world so as to understand and explore the lived experiences of digitally excluded people.

In phenomenology, a theme encompasses the essence of the phenomenon, gives shape to the lived experience and makes sense of the experience (van Maanen, 1991). The theme must capture the essence of the lived experience and shed light on its essence.

The four themes that emerged from the data were:
- full immersion experience,
- unmediated information use,
- inadequate information space,
- unassisted information use.

These themes are being experienced separately or in tandem.

Findings

The endless information journey

Online there was an endless journey where it seemed that there was no end to the information that was available. This endless journey was experienced by both participants as a constant search for information, often leading to a feeling of being overwhelmed by the amount of information available.

I don't know where to start looking. I don't know where to start looking. For example, if you're looking for a job, you could end up on so many different websites, searching for the right information. Both participants expressed a feeling of being lost in the vast amount of information available online.

Online there was no limit to what could be found; the journey could continue in search of information and this had both positive and negative aspects.
Uncontrolled information space

Alice referred to how the endless information journey was not uncontrolled. As a mother, she had concerns about the information her children could access online. Alice had taken measures to restrict the online access of her children but she was aware that this control was limited. While the information explosion is an endless journey through information, which can be overwhelming, it is not uncontrolled information space.

Susan also had concerns about the situation, but she was more concerned with the 'joke' information that she found online. Susan accessed all her news through Facebook, liking particular pages to get updates, but she found that she had often been fooled into liking a 'joke' page. Again, the feeling of not being able to control the quality of information was highlighted.

Connected to the feelings of control in the online space was the aspect of control over accessing online information. The home vd vi connection or personal mobile phone using pre-paid data was the only trustworthy place to go online. Alice specifically stated that she didn’t connect to public places or libraries “I don’t trust them”. While Susan did not say she doesn’t trust public places specifically, the only public place she feels comfortable connecting to is McDonald’s, rather than an organization like the public library that she has no personal connection to.

Inadequate information space

While the information is boundless, the online information space was also experienced as inadequate. Both Alice and Susan found the online information space inadequate in terms of information. Alice also said it is inadequate in terms of information volume, and also feared it found it inadequate in terms of information volume, and also feared it.

Alice experienced connecting and exchanging online information with others as lacking something that was present in face-to-face interaction. She spoke about using a government department app on her smartphone. The whole process of using the app was “just really, really, really hard” for Alice, and resulted in her spending an hour and a half between the app and the government website to fill in the correct information. She then had to ring the department when it opened the next morning as she was not sure what she should need. She would receive some benefits but then have to be paid the rest in the post. Alice also feared that her interactions with others in an online space were inadequate, but that they were also inadequate for her father. Alice’s father is unable to read or write yet.

Alice manages many of her father’s transactions for him as he is more active online. As his information needs are not met online, but can only be dealt with face-to-face and through a mediating party, the online information exchange is both inadequate and frustrating for him, and for Alice when she carried out online transactions for him.

Susan found the online information space inadequate when it came to searching for information about jobs or housing. Rather than going online she would prefer to use the newspaper.

Both Alice and Susan had difficulties finding complex information online when they searched for their medical conditions. One of Alice’s children has a heart condition and while she was pleased that she could search for the information online, it was still difficult.

Susan also experienced a similar situation. When searching for medical information about her daughter she got five different answers and was unable to discern which was the most reliable. In comparison to the face-to-face experience of having information explained to them, the online information experience is lacking in the situation.

Essential information space

Both participants experience the online information space as essential, with access to it facilitating a range of necessary interactions, from personal relationships to dealing with organizations.

During the interview, Alice repeatedly referred to a need to be online, “my phone is my life” and when asked how often she connected to the Internet Susan replied “everyday, continually”. For both participants the smartphone was where they kept all the information relating to their personal lives. Not only does phone hold data regarding their lives, it also provides instant access to anything they want to know. As seen in the experience of the endless journey, being online was essential to access all this information.

For Susan this was apparent in her social relationships. She does not use email or any other social media applications apart from Facebook and regards Facebook as an essential social space, more so now she has an infant daughter:

“I don’t have Facebook it would probably affect my relationships, it could be harder to communicate and keep up with what’s happening.”

This was also revealed when Alice spoke about her father’s experiences. His online information experiences demonstrate the ways that online information was experienced as inadequate, and also as essential:

“I don’t know how my Dad does it, he has to drive there, he has to walk all and sit... he was our next resident, he forgot to put the right amount in. We waited an hour and a half to speak to the person for two minutes. I envy you ‘cause you don’t have to.”

Although the online information space was experienced as inadequate by Alice and her father, she still viewed it as essential as it is the place where necessary transactions take place.

This was also reflected in Susan’s comments about the apps that she uses to manage her finances, such as her banking app and the Central Link app. Before she was able to use the app to access information about her benefits she was forced to take her daughter with her to the Central Link office which she found difficult. Even though Susan sometimes struggled to use the app, because, she said, it is not “set up on the banks”, she is still using the banking services.

Another way that online information was experienced as essential is that it was an educational tool, and it is seen as some ways as more important than traditional library tools. Both of Alice’s children who reside with her have had difficulties. Her ten year old son is unable to read or write properly and her five year old has hearing and speech difficulties. Alice believes that her son “doesn’t have the tools to use the Internet”. She worries that this is our future. It’s the computer. Alice sees the Internet as being essential in that it is the place where information is stored, and therefore it is necessary for her son to navigate the online information world. The fact that it is an essential means that the online information experience of her son is almost more important than their traditional library. They need to be able to use the Internet more than any other skill, in fact the most important thing is that they ‘can use the Internet and stuff as well’.

Discussion

Research into digital exclusion tends to focus on the problem of being digitally excluded, offering theories on why someone is digitally excluded and the steps that can be taken for them to become digitally included. This pilot study instead took a holistic view, using phenomenology to examine the online information experiences of individuals experiencing socioeconomic disadvantage. Once the themes had been identified within the data, current theory about digital exclusion was re-examined in light of the participants’ experiences, as hermeneutic phenomenology analyses the participants’ experiences with the view of the whole-in-the-world, examining how existing theory applies to the lived experience of participants is particularly appropriate.

Access digital divide

Both participants experienced an access digital divide. While they had the technical means to connect online using their smartphones, they did not always have the financial means to do so. Critical, Alice was also unwilling to connect to the Internet in a public space, and neither participant would consider using the public library Internet access. This raises two important issues.

First, the findings drew attention to the information that Alice and Susan choose to access. While both participants were able to go online autonomously, the impact of limited access must not be underestimated. As they are imposing restrictions on how they access online information, they are also having to make choices about what to view online as their data allowance is used. An awareness of data running out may mean that certain information is given higher importance (Ryan et al., 2012) and prioritised for access. Depending on what information is given the highest importance, Susan and Alice may be depriving themselves of information that may be important.

The second issue is around the way that public libraries are connecting with low socioeconomic clients and promoting the services that they offer. Neither participant was referring to access to the Internet as a public library. They both stated that libraries have historically had a responsibility to improving the lives of these experiencing socioeconomic disadvantage via access to information (Vowles, 2006). However, the experience of these participants suggests that public libraries do not necessarily connect with this group. While the participants would have been able to receive more help with using online information at a library, they were not aware that what still raises questions regarding the ways in which libraries can connect with McDonald’s vd vi to connect with clients in a digital world.

It has been shown that lack of access to the Internet impacts upon an individual’s ability to be involved in society, at a personal and community level (Sia and Choong, 2008). This was clearly reflected in the way that both participants were feeling “out when they were not able to go online.”

Social digital inequality and information poverty

Alice experienced a self-imposed social digital inequality. While she was able to interact via social media, she was not motivated to use this space continually as she experienced it as inadequate. One of the benefits of being socially included online is having access to support networks (Ryan, 2012). As Alice has children with medical and educational issues it may be that becoming online support networks would be beneficial, as has been the experience of other mothers (Bolton, 2005; Fung, 2005). Despite reaching out to others, Alice isn’t a potential information source that may be of benefit.
Economic digital inequality

Governments and private organisations increasingly rely on digital tools to store and disseminate information. As the need for individuals to access digital information increases, so too do the impacts of digital exclusion and both participants experienced partial digital economic inequality (Wenjie, 2009).

Alice was able to deal successfully with banks and some other organisations, but when it came to more complex transactions such as purchasing goods or services, she found that technology excluded her. Her lived experience of the online space was inadequate as she was unable to understand the information relating to this. As Sarah misses her use of the Internet through this lack, she does not have the skills needed to navigate the space, and she is unable to access the information effectively, and this results in a lack of information about digital inequalities. This finding is important as it demonstrates a lack of understanding of the information that is available and the restrictions that exist for those who lack digital literacy.

The impacts of economic digital exclusion not only affect the individual but also the broader society (Basu et al., 2016). To demonstrate the power of digital inclusion, providing digital access to social housing estates in Victoria (Australia) generated over five times more in the form of enhanced education and employment, greater economic connectivity and health and well-being benefits (Basu et al., 2016). Understanding the relationship between social, structural and digital exclusion is essential, as previous research has shown that inability to access digital information affects individuals’ educational and employment opportunities, which in turn affects their socio-economic status (Kies and Chen, 2008). If Alice and Sarah were able to be fully digitally excluded, they would have better life chances.

The implications for these findings include a need for enhanced research and support of libraries for socioeconomically disadvantaged individuals. There is also an urgent need to ensure that their overall infrastructure is improved and that they can gain greater benefits from being online. This pilot study shows the need for further research into this area so that a more complete picture can be constructed about digital exclusion and socio-economic status.

Conclusion

The findings of this pilot study show that being online has great benefits for socioeconomically disadvantaged people who may be part of the digital divide. However, online exclusion experiences are complex and the findings highlight the need for rapid solutions to address this issue. The study confirms previous research that there is a digital divide, where individuals experiencing socioeconomic disadvantage who are most in need of help and assistance have the least access to opportunities. Through an examination of the entire online experiences we are able to see that there are numerous ways that individuals experiencing socioeconomic disadvantage may need assistance to use information to empower themselves.

The findings of this exploratory pilot study show that an understanding of the holistic information experience has potential to benefit both individuals who are experiencing socioeconomic disadvantage and the organisations that interact with them. A deeper understanding of this experience may inform these organisations’ current practice and provide an evidence base to enhance the support they provide to individuals experiencing socioeconomic disadvantage.

Ethical clearance

Full ethical clearance of the research tool and data collection processes has been obtained from the QUT Ethics Committee (QUT Ethics Approval Number 1300900775).

About the authors

Kathleen Meehan is a doctoral student in the Faculty of Education at the Queensland University of Technology. She has worked in an academic, librarian and learning design roles. Kathleen’s research interests include information literacy and digital literacy.

Christine Susan Bruce, PhD, is Professor in the Information Systems School of the Science and Engineering Faculty at the Queensland University of Technology (QUT). She is the Principal of the Higher Education Academy and Academic Program Director of Research Training for STEMM research students and supervisors. Christine is also Chair of the QUT Higher Education Callic and employs qualitative methods, doctoral study and supervision and information and learning experiences in digital spaces. She can be contacted at cjbruce@oas.qut.edu.au.

Hillary Hughes, PhD, is Associate Professor in the Faculty of Education and Education, Queensland University of Technology, Australia. Her research interests include information literacy and teaching and learning, information and knowledge management, management learning and knowledge, and intellectual learning and knowledge management. She is the Chief Investigator for two Australian Research Council grants and has completed several other funded projects. In her research, Hillary draws on extensive previous experience as a reference librarian and Information Literacy educator. In 2010 Hillary was Fulbright Scholar in Residence at University of Colorado. She has also received several teaching and awarding grants. She can be contacted at hughes@oas.qut.edu.au.

Kate Davis, PhD, is a Senior Research Fellow at the University of Southern Queensland’s Digital Life Lab. Kate is a social scientist who researches information experience, particularly in the context of social media, using qualitative approaches designed to get to the heart of how we think and feel about our experiences of exploring the information experience of new online applications.

References


