Sora Park

DIMENSIONS OF DIGITAL MEDIA LITERACY AND THE RELATIONSHIP WITH SOCIAL EXCLUSION

Abstract

This article has two objectives. The first is to conceptualise digital media literacy as a multi-dimensional concept by differentiating media content from media device. A broad range of skills is required to use digital media, and each dimension can be clarified by separating the device from the content. The second goal is to relate social exclusion to digital media literacy. How people use digital technology has long-term outcomes that could be either beneficial or disadvantageous. In the first part of the article, the multi-dimensional aspect of digital media literacy is discussed. Dimensions include the abilities to access, understand and create both in the area of device and content. The second part of the article discusses how social exclusion is related mostly to the third dimension of digital media literacy: the ability to create and participate.

Discourse on digital media literacy usually revolves around how new technologies are changing the skills necessary to partake in digital culture. It usually assumes that a new type of literacy will replace traditional media literacy, which consisted of the basic tools needed to read and understand mediated messages. Compared with traditional mass media, digital media require a broader and more comprehensive set of skills, including social and cultural abilities. In this study, I explore the dimensions of traditional media literacy that should be expanded in order to render it applicable in the use of new digital technologies. As media are becoming increasingly important in our everyday lives as a result of digital media expanding into the realm of human communication, the ability to use them well is crucial to a person's participation in the digital society.

Digital media literacy can be defined as the ability to access, understand and create content using digital media (ACMA, 2009; Buckingham, 2005; Penman and Turnbull, 2009). While traditional media literacy focuses on the understanding of media messages (Potter, 2010), digital media add a new dimension of creating and communicating messages. Digital media can be characterised by their interactive nature (Wartella, Lee and Caplovitz, 2002), the essence of which is building knowledge through dialogue. While most traditional mass media outlets provide audiences with scheduled content, digital media usually function as a gateway to a variety of information, entertainment content and communication tools. Digital media literacy goes beyond the traditional sense of being a critical reader or user. In the digital media environment, it is not only necessary for people to be able to find the relevant content and understand the meaning within context, but also to create and communicate messages. It is generated by its uses, which Hartley and colleagues (2008) label 'demand-led' literacy.

There are two misleading assumptions regarding digital media literacy. One is that providing access to digital media will remedy the gap between the information haves and have-nots. The enormous potential of the internet as a provider of access to limitless

information to those who are connected poses the traditional question of whether the media will enable people to reach and use information that would have not been available otherwise. Providing access to the gateway, however, does not automatically guarantee the actual usage of the available information or resources. It has been found repeatedly that not only the access but the way people use the internet can result in a second-level digital divide (Hargittai, 2002; Hargittai and Walejko, 2008; Van Dijk, 2006; Peter and Valkenburg, 2006). Thus a participatory gap exists among those who are granted equal access to the technologies and networks (Jenkins et al., 2006; Hargittai and Walejko, 2008). This gap – between those who use the digital technologies to their benefit and those who do not – can pose a new problem of social exclusion. Another common misconception is that those who are exposed to digital media early in their lives naturally acquire the necessary skills and tools to navigate the digital world. The assumption about 'digital natives' is that they will somehow acquire digital media literacy without specific training or education. Evidence shows the opposite, and a considerable amount of variation in digital skills exists among younger generations (Hargittai, 2010). As with any new technology or language, in order to achieve high levels of literacy people need to be exposed to, educated in and learn to incorporate these skills in their everyday lives (Goldman, 2007).

The purpose of this article is to look at existing studies that discuss the multi-dimensional nature of digital media literacy and analyse its various dimensions. This is to provide a conceptual foundation for empirical assessments of digital media literacy in the future. The second objective is to see how lacking digital media literacy can lead to social exclusion – a concept that usually is used to capture a broader concept of poverty for policy purposes. In relation to digital media, it is usually seen as an outcome of poverty rather than an indicator. Policy intervention usually focuses on how the digital divide can be overcome by granting universal access to new technologies. However, the access itself does not solve the problem of a usage gap or participatory gap. Thus the question of how each dimension of digital media literacy can be linked to social exclusion as an outcome will also be explored.

Digital media literacy as a multi-dimensional concept

In this section, the multi-dimensional aspect of digital media literacy is examined. It is essential to know what constitutes the digital media literacy concept in order to pursue any empirical observation or make any policy suggestions based on the assessments. We need a more inclusive concept of digital media literacy that is expanded from the existing media literacy concept. New technologies mandate us to open up and rethink what constitutes literacy (Goggin, 2008).

Media literacy of traditional mass media can be defined as the ability to read and comprehend media messages. In order to do so, it is necessary to have a basic knowledge of how messages are produced and distributed to media audiences. In the digital environment, a variety of skills is required in addition to the reading and understanding of mediated messages. Since messages are not sent out uniformly, digital media users must seek out messages. Media users must have access to a certain device, such as a computer, and know how to operate the device. Most digital media do not send out uniform messages like traditional mass media, so the next step involves being able to find the relevant content by searching and filtering through a diverse range of information. It is at this stage that the traditional ability of interpreting mediated messages is needed. The experience of consuming content is quite different from mass media, where uniform media messages are produced by media experts and distributed to audiences asymmetrically. In contrast, digital media content is interactive. Interactivity is the basic nature of digital media that differentiates it from traditional mass media. It enables an average media user to store, annotate, redistribute and share various forms of information that were once only consumed (Jenkins et al., 2006). The skill required to use interactive content stretches beyond content

consumption and has a creative element to it: not only do people consume messages, but they generate, create and communicate new messages.

The most commonly used definition of media literacy is the ability to access, analyse, evaluate and produce media content. However, this type of skill approach is limited because it does not take into account the social and historical contingence of media processes (Livingstone, 2004: 5). It is important to know how new media represent knowledge, frame entertainment and engage in communication. Literacy was never a context-free or neutral skill, but rather the mastery over the processes that culture and society have made significant. Warschauer, Knobel and Stone (2004) summarise the principal characteristics of literacy as existing in many different types and varying on the basis of social contexts. Not only is it the skills to interpret social artefacts but it also involves the social context.

A wider range of competencies is involved in using digital media compared with traditional mass media. While literacy skills of mass media focus on how people can critically understand mediated messages, digital media literacy skills expand beyond interpretation of content into the realm of controlling, filtering and appropriating content through various digital media channels (Livingstone, Couvering and Thumim, 2005). However, digital media literacy should not be regarded as replacing traditional media literacy; rather, it expands the literacy skills involved in reading, writing and understanding to encompass the new technologies. Internet literacy, internet or online skills, and digital media literacy concepts are used interchangeably. A similar concept, 'internet literacy', is related to online experiences, and means the skilful use of the internet. Vered (2008) prefers the term 'media competency' over media literacy, as competency includes both informally and formally acquired skills, objects and practices, and eliminates the argument about whether or not media literacy should include the ability to produce media content.

Whatever the definition may be, the assumption is that usage skills affect how people use digital media and consequently the number of risks and opportunities (Livingstone and Helsper, 2010). The reason digital media literacy is important is because there is no uniform message delivered by digital media, but the types of message to which people are exposed largely depend on how individual users use the technology. Having digital media literacy is also regarded as a prerequisite to effective participation in technologically advanced societies, in which rapid change in information and communications services has become the norm (O'Neill, 2010).

Internet skills consist of a tier of competencies ranging from basic operational and formal skills to more sophisticated information-gathering and other strategic skills (Van Deursen and Van Dijk, 2010a, 2010b), which are distinct from the skills required to consume mass media messages. Media literacy has multiple dimensions with several layers (Meyrowitz, 1998), and digital media add more layers to the literacy.

Many online activities are replicas of existing real-life experiences, such as talking to other people, reading and writing, shopping and so on. They involve more than getting access to the same content via new devices, however. Digital media content goes beyond simply consuming mass mediated messages and expands to creating and communicating personal messages. People spend a lot of their time online watching videos, playing games and enjoying other types of mass media content – all of which occurs in confluence with everyday activities, including interpersonal communication. It is problematic to discuss the negative effects within the mass media paradigm, where exposure to media messages is an act of passive and asymmetrical experience. Mass media literacy has developed from an inoculation model, wherein people were taught to be aware of harmful content and thereby inoculated against its usage. Yet media effects are by no means direct or obvious. The media literacy concept evolved into an approach that now enables audiences to be active, free participants in the process of media consumption. Furthermore, in the new media environment, multi-skilled and multi-modal literacies are necessary (Penman and Turnbull, 2007). Therefore, we need a concept of digital media literacy that expands beyond the traditional sense of protecting people from consuming negative content into

a more active concept where people learn not only how to read and understand mediated messages, but also to create and participate in a way that helps them to become engaged citizens in modern society.

Acquiring literacy has policy objectives of enabling everyone to be a part of society and not be excluded from benefits that may arise from the acquisition of such skills. With regard to digital media, the concept of digital divide has been used in various contexts to address the issue of information haves and have-nots. Since socio-economic status (SES) is often intertwined with the ownership of new technologies, many studies have looked at the relationship between the digital divide and SES. Digital divides have been found across age, income and employment (Holloway, 2002; Lengsfeld, 2011), among low- and high-income households (Holfeld et al., 2008), across gender (Hargittai and Shafer, 2006), and among urban and rural areas (Asthana, Halliday and Gibson, 2009). Another area of investigation relates to how disability is linked to other socio-economic factors, and how that might reinforce the existing gap. Furthermore, technical accessibility barriers exclude certain groups from using the technologies to their benefit (Dobransky and Hargittai, 2006; Vicente and Lopez, 2010). There have, however, been a few studies that look at people's ways of using digital media and how these affect their digital media literacy. We need to look at how usage patterns interact with structural and individual factors in shaping people's habits of digital media usage and how that is related to a more sophisticated and competent use of digital media.

Another argument against looking at the problem in terms of digital divide is that the gap in the access to technology may be diminishing due to policy intervention. However, the gap may be widened further by usage behaviour, and a new type of gap may emerge among existing users. This is because digital media require sophisticated user capabilities, such as computer literacy and technical competence (James, 2008). It has been observed empirically that a participatory gap exists even after providing equal access to the technologies and networks (Jenkins et al., 2006; Hargittai and Walejko, 2008). It has been identified through empirical research that education and training are necessary for acquiring participatory skills (Goldman, 2007). Thus granting access to digital media may not automatically reduce the gap that exists among users. The digital divide is no longer a gap in physical access but a divide that includes differences in the skills needed to use the technologies (van Deursen and van Dijk, 2010a).

A dual layered approach

Previous studies on digital media literacy agree that digital media literacy is a multi-dimensional concept, and the concept needs to be expanded from traditional media literacy in order to include the skills necessary to use digital media (Buckingham, 2005; Goggin, 2007; Warschauer, 2010). Literacy is a socially defined concept that is bound to specific technologies. In discussing digital media literacy, we need to consider the technological changes that influence literacies and set up a working definition appropriate for this time and age (Gunkel, 2003).

Several studies attempt to empirically measure the various dimensions of digital media literacy. The main difference between mass media literacy and digital media literacy is the addition of the dimension of being able to create. Buckingham (2008) defines digital media literacy as the skills to access, understand and create. Livingstone et al.'s (2005c) study uses the dimensions of access, navigating, controlling and regulating competencies of media. Navigational competencies are basic functional skills, such as being able to send a text message. Controlling skills are more advanced usage such as searching skills. Regulating the technology means being able to filter and find necessary help. Van Deursen and Van Dijk (2010b) propose a framework to measure internet skills: operational, formal, information and strategic skills. Clement and Shade (2000) use the notion of a 'rainbow', implying that access extends from network infrastructure, equipment and software tools,

to user skills and knowledge. Thus literacy goes beyond access to technology and into the competencies of the users who are situated within the cultural and social context (Sourbati, 2009). Jenkins et al. (2006) add an ethical dimension that is posed by the increased use of public media to participate in their community and the larger world. Most studies conclude that we need to add the dimension of creating messages, since digital media compel the user to interact and communicate.

Lievrouw (2000) suggests moving beyond the current conduit-centred notion of access to a content-oriented approach. Access is a necessary condition for social participation when communication media are conduit-type mass media channels, transmitting content from few senders to many receivers. Digital societies, however, depend more on conversational communication and media that support interactivity. Thus access to both conduit and content is considered an essential prerequisite for social and political participation in the digital era. Similarly, Brandtweiner, Donat and Kerschbaum (2010) propose a two-dimensional approach to e-literacy that differentiates the basic technical skills needed for using the computer and the advanced competency necessary to select and critically understand mediated messages.

Distinguishing content and conduit is useful when we examine digital media, the content of which is no longer restricted to a certain medium or platform but can be delivered through any type of digital media outlet. It is also useful to conceptually separate the device with which the content is delivered and the content itself, since different skills are required to be able to use either. I propose to add a new layer to the existing digital media literacy dimensions of accessibility, understanding and creation, thereby looking at each dimension separately in terms of device and content (see Table 1). The term 'device' is used here in order to reflect the user side of the skills. It encompasses the actual device, including all hardware, software and network that enable digital media delivery. However, the user interfaces with the device and is often unaware of the technologies behind it.

Table 1: Dimensions of digital media literacy

	Device literacy	*Content literacy*
Access	Device ownership, access to service	Ability to search, find and filter relevant content
Understand	Understand the basic nature of technology and know how to operate at a functional level	Ability to understand and critically analyse content
Create	Ability to produce, reproduce and create content using digital technology	Ability to form opinions, ideas and convert into digital content. Knowledge of the social impact, cyber etiquette and ethics.

Source: Park (2011).

The media constitute a system where content is delivered through a certain conduit to the end-user. An interface or a point of interaction between the delivered message and the recipient is where the act of communication occurs. In the digital media environment, the interface is usually a screen device – such as a mobile phone or computer monitor. Unlike analogue media, digital devices are more complicated and require more functional skills. In order to get to the content, a person has to know how to turn on the computer, select the right software or application, and be able to navigate the system. Turning on the TV set or picking up an issue of a newspaper requires minimal functional skills. Operative skills of digital devices are prerequisites for users who wish to access the diverse range of services available. However, these skills are not necessarily related to the literacy skills involved in critically understanding and creating content. A conceptual model that

distinguishes the differences is necessary in order to understand the complex dimensions of digital media literacy.

Buckingham (2005: 6) identifies the two different dimensions of access: the physical access to equipment and the ability to manipulate the technology. The first dimension is related to the physical device – the ownership of or access to the hardware – while the second is having the skills to locate relevant content through that device – the ability to use the software or content. Digital media require complex knowledge on the user's part in order to gain access. The concept of access includes 'understanding of what each platform and device is capable of and how to use its functions' (OFCOM, 2006: 10). There have been reported usability difficulties in using interactive facilities of digital television, electronic guides, remote control devices and screen devices (Buckingham, 2005). Digital natives typically have high-level skills in this aspect, especially in interfacing with and using interactive functions of digital media (Facer and Furlong, 2001; Livingstone and Bober, 2003). They may be skilled users of 'devices', but they are not necessarily highly skilled in the dimension of 'content-access skills'. The content-access dimension is the ability to find, locate and filter relevant content. Although less focus has been placed on content-access skills, those who have higher skill levels are more trusting of online content. As such, critical understanding skills open up more opportunities of access to users (Livingstone, Bober and Helsper, 2005).

Both access dimensions might have a psychological barrier preceding usage. Even after getting access to technology, psychological barriers such as anxiety and low self-efficacy may affect the usage pattern (Lee, 2009; Selwyn, 2004). Non-cost-related psycho-social obstacles can undermine motivation for acquiring skills (Stanley, 2003). In a study comparing ten countries, the expense of accessing the internet was not the primary reason for non-use. 'No interest/not useful' was the most-cited reason by non-users. Another reason was because they were confused by the technology (World Internet Project, 2010). Similar responses were reported in a study in the United States. Among the 21 per cent of Americans who did not use the internet, 31 per cent said it was because they were not interested (Zickuhr, 2010). Acquiring access literacy includes a psychological motivation for using technology. Goode (2010) uses the concept of technology identity to explain this type of digital divide. Individuals' attitudes and beliefs about their competence in digital media are significant determinants of how they will use the technologies. Socio-cultural forces affect the technology identity, which means the digital divide is reproduced at both home and school. The mental access or motivational aspect of access is regarded as the first step in a successive model of digital media access. Likewise, Van Dijk (2004) uses the concept of 'access' broadly, including mental access, physical access, skills access and usage access. Access to content is similar to the concept used by Van Cuilenburg and McQuail (2003). Access to communications means participating in the communications infrastructure and distribution services markets. The meaning of access is being able to freely enter and use the available resources on digital media.

The second dimension of digital media literacy is to understand mediated messages. The traditional meaning of media literacy focuses mainly on how people comprehend various media messages. This includes understanding producers' motives in the media marketplace, being able to differentiate fact from fiction and knowing how media representation may not be a replica of real life (Buckingham, 2005; Livingstone et al., 2005). Understanding the text goes beyond interpretation of meanings. In order to fully understand the meaning in context, one must have knowledge about the media system that is producing such texts (Lewis and Jhally, 1998). Again, we need to differentiate the understanding of devices and understanding of content that is delivered through the devices. The device largely determines what type of content can be delivered and consumed. Understanding the device technology means knowing how meanings and representations of the same message may be different according to the medium through which the message is delivered. On the

other hand, understanding the content side of the dimension means knowing the context of why such messages were created and what they mean within the social context.

The third dimension of digital media literacy involves user participation and production. In the digital media environment, it is not sufficient to become a smart consumer; one should become a sophisticated citizen (Lewis and Jhally, 1998). This dimension can be defined broadly, ranging from small-scale everyday practices of communication, such as texting, to larger social and public content creation such as maintaining a political blog (Buckingham, 2005). On the device side, it would mean that in order to engage in creative activities, a person needs the necessary skills to manipulate technology and also understand issues such as media language and how to reach audiences. Having creative skills with digital media devices means being able to use various digital devices with ease, knowing how to operate various functions and applications to make, create and express ideas and opinions. Having device literacy to create content would mean having the necessary skills to produce, edit and upload various content using digital technologies.

The content side of the dimension refers to a more social and cultural aspect of creativity and communication. A person with high levels of digital media literacy in the creative content dimension would be capable of knowing the culture and norms of the online world, knowing where to post and upload within the boundaries of acceptable social behaviour. It would also include the skills needed to form and express opinion and engage in social participation through various digital devices.

Part of the reason we have inconclusive observations on whether or not 'digital natives' are more digitally literate is because we are looking at two different things: digital natives are competent in the device-side of digital media literacy, but not necessarily so on the content side. Having grown up in a digitally rich environment, they can easily manipulate new interfaces and gadgets without special instructions. However, content-side literacy requires a different set of skills. As Livingstone (2007d: 102) puts it, 'mastering the technology means mastering not just the hardware, but all that the internet affords its users'. For instance, participatory behaviour online includes both civic engagement and creative uses, which are different types of social behaviour. The former is closely related to the dimension of being able to think and express oneself in a critical manner. The latter is a result of having high levels of device-side digital media literacy. According to Livingstone, Bober and Helsper (2005b), interactive and creative use of the internet involves gaining confidence through experience of usage. Civic activities, however, are largely explained by demographics, which means that a social precondition such as education and income influences such engagement.

The third dimension is especially important in the discussion of digital media literacy because it is related to the second-level digital divide, where even if people are granted equal access to digital media, the way they use the technology affects them differently in the long run. Results from a survey conducted in Korea show that users who use a diverse range of online services are less exposed to harmful content (Park, 2009). However, since online activities result in both intentional and accidental encounters of content, the level of use often correlates with both the amount of risk and the opportunities (Livingstone, Bober and Helsper, 2005). Thus restricting usage not only reduces the risks but also the opportunities (Livingstone and Helsper, 2010).

Digital media literacy and its relationship to social exclusion

This section discusses how digital media literacy is related to potential social inclusion or exclusion. Social inclusion is the ability to exercise control over the environment or resources that a person might have in various dimensions of life (VicHealth, 2010). Social exclusion is not synonymous with poverty, but refers to a state where people cannot participate in key societal activities (Saunders, Naidoo and Griffiths, 2007).

Information poverty increasingly is becoming an important indicator of social exclusion, especially in the digital era. The inability to use or access information and communications technology can lead to the widening the gap between the socially included and excluded (Facer and Furlong, 2001). The enormous potential of the internet to provide access to enormous amounts of data and information for those who are connected poses the traditional question of whether the media will enable people to access and use information that would have not been available if they were not connected. This logic of social exclusion usually is consistent with the digital divide argument.

Many empirical studies on social exclusion include in their variables access to computers or the internet, implying that technology is essential in the process of determining whether or not a person is excluded and/or disengaged from society. Daly et al. (2008), Lewis and Corliss (2009), Tanton et al. (2009) and Vinson (2007) all use personal computer usage in the home as one of the indicators of social exclusion. Similarly, Todman et al. (2009) use internet and computer access as indicators of economic disadvantage, while Harding et al. (2009) use internet connection. This is because computer or internet access is often linked with the socio-economic status of the household, and therefore children from lower income households are excluded systematically from the new technologies. These empirical studies usually include computer or internet access under the category of material disadvantage. However, providing access to the information gateway does not automatically guarantee the narrowing of the gap between the haves and have-nots (Hargittai, 2002; Hargittai and Walejko, 2008; van Dijk, 2006; Peter and Valkenburg, 2006).

The concept of a digital divide may be misleading, since it implies a bipolar split between the haves and have-nots. Access to and use of technologies is rather a gradation, often intertwined with other social and economic factors, assuming any causal assumption can be problematic. Instead, Warschauer (2003) proposes the concept of social inclusion since the ability to access and use new information and communication technologies is critical to an individual's participation in society. Social inclusion differs from the digital divide concept because it shifts the focus away from digital access to use (Notley, 2009). It highlights the variations in digital media use, where instead of the binary haves and have-nots, we can examine the engagement with technology and its implications (Tsatsou, 2011).

Social exclusion is a term that describes not only the poverty or deprivation of a certain group of people within a society, but also the many dimensions that lead to the disengagement of that population from the society (CSSA, 2010). Social exclusion is the inability to engage in normal relationships and activities that are available to the majority, so it is not limited to economics but applies to culture, politics and other social areas where the quality of life is affected. Thus social exclusion goes beyond the economic status of a person. Usually, it is used as a multi-dimensional concept that embraces not only the poverty level but also the opportunities to accumulate wealth, health, community participation and social interaction (Burchardt, Le Grand and Piachaud, 2002; Daly et al., 2008; Harding et al, 2009; Levitas et al., 2007; Pierson 2010; Todman et al., 2009). Disengagement, service exclusion and economic exclusion are the main areas of social exclusion (Healey, 2011: 10).

Among the many dimensions of digital media literacy, the ability to create is closely related to social inclusion and exclusion. The gap in access to digital media can be remedied by policy intervention and providing universal access to technology. However, the diversity in usage of digital media polarises the existing differences among those equipped with the knowledge to use the internet to benefit themselves and those who cannot. This cannot easily be overcome with remedial policies.

There are studies that examine variables across economic, social and individual dimensions (Savelsberg and Giles, 2008), and in most cases various dimensions of social exclusion are correlated with each other (Vinson, 2007). Hargittai and Hinnant (2008)

found that capital-enhancing activities – that is, activities enabling young people to achieve upward mobility – were undertaken by highly educated people. Such activities include finding political information, new job vacancies and information about financial and health services. Furthermore, socio-economic factors may influence the way people use digital media, which may reinforce the existing social exclusion. Livingstone and Helsper (2007a) found that middle-class children used online opportunities such as searching the internet for schoolwork, looking up information and emailing more than working-class children did. Similarly, young people with higher SES use the internet for information while those in lower SES groups use it for entertainment (Peter and Valkenburg, 2006). Differences emerge between and within groups around their online activities. Younger, more educated, affluent people use broadband internet at greater levels for a range of services (Gant et al., 2010). The information haves and have-nots have been a long-studied subject in the area of political communication. In the modern age, social power is distributed around knowledge, and mass media provide essential information in society. If those who have higher socio-economic status tend to get the information at a faster rate, then the existing gap between different social classes is widened (Tichenor, Donohue and Olien, 1970). A meta-study of 46 empirical studies on knowledge gap found a consistent gap between high- and low-SES individuals (Hwang and Jeong, 2009).

So why is it that some people use technologies to benefit themselves, while others – even given the same opportunity – do not? Due to the multi-dimensional nature of digital media literacy, people must acquire different types of skills in order to be 'digitally literate'. That said, people acquire different sets of skills depending on their digital environment, such as parental mediation, peer group and formal education (Na, Kim and Park, 2009). This diversity in acquiring the skills has an impact on how users engage in digital media use.

Sceptical observations have been made when looking at the digital generation's political activities online. The types of news gathered on social network sites do not necessarily add to democratic discourse and do not encourage already disengaged youth to participate in politics (Baumgartner and Morris, 2010). Active participation, or partaking in interactive services online, does not necessarily evolve into political participation online, though interactive and creative activities online are encouraged by experiences on the internet. Political participation, however, is more of a function of socio-demographics and not necessarily related to technological competence (Livingstone, Bober and Helsper, 2005). It might even be argued that new media widen the gap between those who are politically engaged and those who are not (Davis, 2010).

Empirical research shows that the internet is an efficient and cost-effective tool for reaching out to those who are already interested in politics. However, it is much less effective in engaging those who are not interested in the first place (Banaji and Buckingham, 2010). Scholars disagree about the internet's effect on the political participation of the digital generation. A meta-analysis of internet and engagement shows that the internet has neither negative nor positive effects on engagement (Boulianne, 2009); nonetheless, the opportunities provided by digital media for civic participation are unprecedented (Bers, 2007), and there are optimistic views about this new trend of social engagement. Earl and Schussman's (2007) study on online petitioning suggests that the active participation in which members of the younger generation engage as cultural consumers may be a meaningful form of civic engagement. That they are linked with each other and that they are able to express themselves are both learning processes. Findings from a national survey in the Netherlands confirm that young people's use of online news, information and communication is related positively to political participation (Bakker and de Vreese, 2011).

Participatory behaviour in the digital world is understood differently in different contexts. For instance, creative activities and political participation are two very different behaviours. Bennett (2007) observes two different paradigms that look at digital youth as either active or passive. The 'engaged or active paradigm' sees the new empowerment

of youth as expressive individuals. Even though they might not participate in traditional government-driven activities, they nonetheless are taking part in their communities as citizens. The opposing view is the 'disengaged or passive paradigm', wherein youth are described as a generation disconnected from politics and public affairs. Media engagement is not synonymous with civic engagement (MacArthur Online Discussion on Civic Engagement, 2006).

Another study shows that even though conventional methods of political participation – such as voting – are declining in the younger generation, other forms of political participation are emerging in their place. During the 2008 US election, young people cited social networking sites as news sources, and this new type of news consumption added to their democratic discourse (Baumgartner, 2010). The reduction in participation costs of the internet induces people who are not politically motivated to engage in political activities (Borge and Cardenal, 2011). Even though there are two contrasting viewpoints on the internet's impact on civic engagement, it is a fact that the distinction between civic engagement and cultural or media engagement is becoming less and less clear.

The most important link between social inclusion and digital media literacy is the way people behave online, and the types of activities in which they engage online. In studying participatory behaviour online, Hargittai and Walejko (2008) define creative activities as the creation of music, poetry or fiction, photography and video. Their study found that among young people, creative pursuits were unequally distributed by socio-economic status.

In an information society, information is a primary good – which means it is a necessary tool for functioning properly in society. The ability or capital to use information to one's benefit is essential. These skills, however, are not granted automatically by acquiring access to a certain technology. Information is also a position good, which has a higher value when obtained earlier. This makes it important to get to information earlier than others (Van Dijk, 2004: 247–48).

Providing home access to technologies can alleviate, but not overcome, the relative disadvantage of coming from a low-SES household in terms of the breadth of internet use, thus warranting continued attention to socio-economic disadvantage in relation to internet use (Livingstone and Helsper, 2007a). Although technology alone cannot narrow or widen the existing socio-economic gap, it can enable people in disadvantaged groups to use digital media literacy to engage in social participation that eventually may yield upward social mobility.

Conclusion

Technological optimists may claim that ensuring access to a new technology is the solution to diminishing the existing social and economic gap in society, and granting access eventually will make people use the technology in a way that benefits them. Notwithstanding the importance of granting everyone opportunities to access digital technologies, it is not a sufficient condition. Empirical studies have reported repeatedly that the way people use the technologies varies to a great degree, and that we cannot put them all in the same category of 'information haves'; nor do they naturally acquire skills to use the technologies at more sophisticated digital media literacy levels. The acquiring of digital media literacy is a learned process, as with any kind of literacy. Preparing digital citizens with digital media literacy is the way to ensure that people are equipped with tools to make informed choices about media and communications services, and to enable people to participate effectively in the digital economy (ACMA, 2009).

In this article, I have argued that by understanding what constitutes digital media literacy, we can find its logical link to social inclusion. In contrast to the concepts of poverty or underclass, social inclusion is a multi-dimensional concept characterised by economic, political, civic, cultural, geographical and judicial dimensions from which people may be excluded (Todman et al., 2009; Warschauer, 2004). It is a dynamic process in

which the relationship between social groups determines inclusion or exclusion. In an age where digital technology is a significant part of society, acquiring digital media literacy and being able to benefit from using digital media competently is one of the ways to achieve social inclusion.

Among the various dimensions of digital media literacy, the review of existing studies shows evidence that a higher level of digital media literacy – especially in the third dimension of participation and creation – leads to positive opportunities online. Digital technology is essential in our everyday lives. Among the many technologies that people use throughout the day, digital media is what connects people to others. Living in an information society essentially means that those who are linked to the network of information gain the means and resources to thrive in the ever-changing world of digital technologies, and have advantages over those who do not use that information.

The concept of social inclusion encompasses the opportunities to accumulate opportunities in society, not only at the economic but also the socio-cultural level. The participatory component of digital media literacy is a path to achieving that status. The digital environment has opened up tremendous opportunities for those who gain access to the networked society. Digital media literacy is something that is necessary for people to navigate. Even though there is no consensus on how to achieve that goal – mainly because it is difficult to agree upon the concept and issues in practical terms (Hobbes, 1998) – we can speculate that individual levels of ethics and values are becoming increasingly important, since most content online is not filtered by experts or institutions but by ordinary users. Searching, locating and evaluating content are imposed upon individuals. In order to achieve this level of literacy, users must be aware not only of the risks and ethics, but also the value of communicating and participating in the discourse. In other words, people have to learn to be 'digital citizens'.

As users become a part of the creation and production of content in the digital world, a more sophisticated and knowledgeable audience or user model is necessary (O'Neill, 2010). Different paradigms of learning may emerge when it comes to acquiring digital media literacy. According to the theory of situated learning, people learn by social practice that emerges from the experience of participating in everyday life (Lave and Wenger, 1991) and through group interaction (Boonaert and Vettenburg, 2011).

The next step would be to develop a uniform, or at least agreed, measure of digital media literacy in order to develop new pedagogic programs for training both young people and adults in such skills, since the goal of enhancing digital media literacy is to help individuals engage in democracy as citizens, participate in the knowledge economy and use creative expressive skills for personal fulfilment (Livingstone, Van Couvering and Thumim, 2005). In order to achieve such policy goals, we need to provide access to the technology and training necessary to acquire the skills to use the technology.

References

Asthana, S., Halliday, J. and Gibson, A. (writer) 2009, 'Social Exclusion and Social Justice: A Rural Perspective on Resource Allocation', in *Policy and Politics*, Policy Press, Bristol.

Australian Communication and Media Authority (ACMA) 2009, 'What is Digital Media Literacy and Why is It Important?', www.acma.gov.au/WEB/STANDARD/pc=PC_311470.

Bakker, T.P. and de Vreese, C.H. 2011, 'Good News for the Future? Young People, Internet Use, and Political Participation', *Communication Research*, vol.38, no. 4, pp. 451–70..

Banaji, S. and Buckingham, D. 2010, 'Young People, the Internet, and Civic Participation: An Overview of Key Findings from the CivicWeb Project', *International Journal of Learning and Media*, vol. 2, no. 1, pp. 15–24.

Baumgartner, J.C. and Morris, J.S. 2010, 'MyFaceTube Politics: Social Networking Web Sites and Political Engagement of Young Adults', *Social Science Computer Review*, vol. 28, no. 1, pp. 24–44.

Bennett, W.L. 2007, 'Changing Citizenship in the Digital Age', in W.L. Bennett (ed.), *The John D. and Catherine T. MacArthur Foundations Series on Digital Media and Learning*, MIT Press, Cambridge, MA, 1–24.

Bers, M.U. 2008, Civic Identities, Online Technologies: From Designing Civic Curriculum to Supporting Civic Experiences." Civic Life Online: Learning How Digital Media Can Engage Youth', in W.L. Bennett (ed.),

The John D. and Catherine T. MacArthur Foundations Series on Digital Media and Learning, MIT Press, Cambridge, MA, 139–60.
Boonaert, T. and Vettenburg, N. 2011, 'Young People's Internet Use: Divided or Diversified?' *Childhood: A Global Journal of Child Research*, vol. 18, no. 1, pp. 54–66
Borge, R. and Cardenal, A.S. 2011, 'Surfing the Net: A Pathway to Participation for the Politically Uninterested?' *Policy and Internet*, vol. 3, no. 1, Article 3.
Boulianne, S. 2009, 'Does Internet Use Affect Engagement? A Meta-Analysis of Research', *Political Communication*, vol. 26, no. 2, pp. 193–211.
Brandtweiner, R., Donat, E. and Kerschbaum, J. 2010, 'How to Become a Sophisticated User: A Two-dimensional Approach to e-literacy', *New Media and Society*, vol. 12, no. 5, pp. 813–33.
Buckingham, D. 2005, *Media Literacy of Children and Young People Literature Review: A Review of the Research Literature on Behalf of OFCOM*, OFCOM, London.
Burchardt, T., Le Grand, J. and Piachaud, D. 2002, 'Degrees of Exclusion: Developing a Dynamic, Multidimensional Measure', in J. Hills, J. Le Grand and D. Piachaud (eds), *Understanding Social Exclusion*, Oxford University Press, Oxford.
CSSA 2010, *The Social Inclusion Agenda: Where It Came From, What It Means, and Why It Matters*, Catholic Social Services Australia, Sydney.
Daly, A., McNamara, J., Tanton, R., Harding, A. and Yap, M. 2008, 'Indicators of Risk of Social Exclusion for Children in Australian Household: An Analysis by State and Age Group', *Australasian Journal of Regional Studies*, vol. 14, no. 2, pp. 133–54.
Davis, A. 2010, 'New Media and Fat Democracy: The Paradox of Online Participation', *New Media and Society*, vol. 12, no. 5, pp. 745–61.
Dobransky, K. and Hargittai, E. 2006, 'The Disability Divide in Internet Access and Use', *Information, Communication and Society*, no. 9, pp. 313–34.
Earl, J. and Schussman, A. 2007, 'Contesting Cultural Control: Youth Culture and Online Petitioning', in W.L. Bennett (ed.), *The John D. and Catherine T. MacArthur Foundations Series on Digital Media and Learning*, MIT Press, Cambridge, MA, pp. 71–95.
Facer, K. and Furlong, R. 2001, 'Beyond the Myth of the "Cyberkid": Young People at the Margins of the Information Revolution', *Journal of Youth Studies*, vol. 4, no. 4, pp. 451–69.
Facer, K., Sutherland, R., Furlong, R. and Furlong, J. 2001, 'What's the Point of Using Computers?', *New Media and Society*, vol. 3, no. 2, pp. 199–219.
Gant, J.P., Turner-Lee, N., Li, Y. and Miller, J.S. 2010, *National Minority Broadband Adoption: Comparative Trends in Adoption, Acceptance and Use*, Joint Center for Political and Economic Studies, Washington, DC.
Goggin, G. 2008, 'Opening Up Literacy with the Digital Turn: Ideas from Mobiles', *Media International Australia*, no. 128, pp. 88–94.
Goldman, S., Booker, A. and McDermott, M. 2007, 'Mixing the Digital, Social, and Cultural: Learning, Identity, and Agency in Youth Participation', in W.L. Bennett (ed.), *The John D. and Catherine T. MacArthur Foundations Series on Digital Media and Learning*, MIT Press, Cambridge, MA, pp. 185–206.
Goode, J. 2010, 'The Digital Identity Divide: How Technology Knowledge Impacts College Students', *New Media and Society*, vol. 12, no. 3, pp. 497–513.
Gunkel, D.J. 2003, 'Second Thoughts: Toward a Critique of the Digital Divide', *New Media and Society*, vol. 5, no. 4, pp. 499–522.
Harding, A., McNamara, J., Daly, A. and Tanton, R. 2009, 'Child Social Exclusion: An Updated Index from the 2006 Census', *Australian Journal of Labour Economics*, vol. 12, no. 1, pp. 41–64.
Hargittai, E. 2002, 'Second Level Digital Divide: Differences in People's Online Skills', *First Monday*, vol. 7, no. 4, http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/942/864.
—— 2010, 'Digital Na(t)ives? Variation in Internet Skills and Uses Among Members of the "Net Generation"', *Sociological Inquiry*, vol. 80, no. 1, pp. 92–113.
Hargittai, E. and Hinnant, A. 2008, 'Digital Inequality', *Communication Research*, vol. 35, no. 5, pp. 602–21.
Hargittai, E. and Shafer, S. 2006, 'Differences in Actual and Perceived Online Skills: The Role of Gender', *Social Science Quarterly*, vol. 87, no. 2, pp. 432–48.
Hargittai, E. and Walejko, G. 2008, 'The Participation Divide: Content Creation and Sharing in the Digital Age', *Information, Communication and Society*, vol. 11, no. 2, pp. 239–56.
Hartley, J., McWilliam, K., Burgess, J. and Banks, J. 2008, 'The Uses of Multimedia: Three Digital Literacy Case Studies', *Media International Australia*, no. 128, pp. 59–72.
Healey, J. (ed.) 2011, *Poverty and Social Exclusion*, The Spinney Press, Thirroul, NSW.
Hobbs, R. 1998, 'The Seven Great Debates in the Media Literacy Movement', *Journal of Communication*, vol. 48, no. 1, pp. 16–32.
Hohlfeld, T.N., Ritzhaupt, A.D., Barron, A.E. and Kemker, K. 2008, 'Examining the Digital Divide in K–12 Public Schools: Four-year Trends for Supporting ICT Literacy in Florida', *Computers and Education*, vol. 51, no. 4, pp. 1648–63.

Holloway, D. 2002, 'Disparities in Internet Access: A Case Study of the Digital Divide in Western Sydney', *Australian Journal of Social Issues*, vol. 37, no. 1, pp. 51–69.
Hwang, Y. and Jeong, S. 2009, 'Revisiting the Knowledge Gap Hypothesis: A Meta-analysis of Thirty-five Years of Research', *Journalism and Mass Communication Quarterly*, vol. 86, no. 3, pp. 513–32.
James, J. 2008, 'Digital Divide Complacency: Misconceptions and Dangers', *The Information Society: An International Journal*, vol. 24, no. 1, pp. 54–61.
Jenkins, H., Clinton, K., Purushotma, R., Robison, A.J. and Weigel, M. 2006, *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*, The John D. and Catherine T. MacArthur Foundation, http://digitallearning.macfound.org/site/c.enJLKQNlFiG/b.2029291/k.97E5/Occasional_Papers.htm.
Lee, C.J. 2009, 'The Role of Internet Engagement in the Health–Knowledge Gap', *Journal of Broadcasting and Electronic Media*, vol. 53, no. 3, pp. 365–82.
Lengsfeld, J.H.B. 2011, 'An Econometric Analysis of the Sociodemographic Topology of the Digital Divide in Europe', *The Information Society: An International Journal*, vol. 27, no. 3, pp. 141–57.
Levitas, R., Pantazis, C., Fahmy, E., Gordon, D., Lloyd, E. and Patsios, D. 2007, *The Multi-dimensional Analysis of Social Exclusion*, Department of Sociology and School for Social Policy, Townsend Centre for the International Study of Poverty, Bristol.
Lewis, J. and Jhally, S. 1998, 'The Struggle Over Media Literacy', *Journal of Communication*, vol. 48, no. 1, pp. 109–20.
Lewis, P.E.T. and Corliss, M.C.T. 2009, 'Social Exclusion of Children: The Regional Dimension', *Australasian Journal of Regional Studies*, vol. 15, no. 2, pp. 195–211.
Lievrouw, L.A. 2000, 'The Information Environment and Universal Service', *The Information Society: An International Journal*, vol. 16, no. 2, pp. 155–59.
Livingstone, S. 2004, 'Media Literacy and the Challenge of New Information and Communication Technologies', *The Communication Review*, vol. 87, no. 1, pp. 3–14.
—— 2007, 'Internet Literacy: Young People's Negotiation of New Online Opportunities', in W.L. Bennett (ed.), *The John D. and Catherine T. MacArthur Foundations Series on Digital Media and Learning*, MIT Press, Cambridge, MA, pp. 101–22.
Livingstone, S. and Bober, M. 2003, *UK Children Go Online: Listening to Young People's Experiences*, London School of Economics and Political Science, London.
Livingstone, S., Bober, M. and Helsper, E. 2005, *Internet Literacy Among Children and Young People: Findings from the UK Children Go Online Project*, OFCOM/ESRC, London.
Livingstone, S., Couvering, E.V. and Thumim, N. 2005, *Adult Media Literacy: A Review of the Research Literature on Behalf of OFCOM*, Department of Media and Communications, London School of Economics and Political Science, London.
Livingstone, S., and Helsper, E. 2007, 'Gradations in Digital Inclusion: Children, Young People and the Digital Divide', *New Media and Society*, vol. 9, no. 4, pp. 671–96.
—— 2010, 'Balancing Opportunities and Risks in Teenagers' Use of the Internet: The Role of Online Skills and Internet Self-efficacy', *New Media and Society*, vol. 12, no. 2, pp. 309–29.
MacArthur Online Discussions on Civic Engagement 2006, http://spotlight.macfound.org/resources/Civic_Engagement-Online_Discussions'06.pdf.
Meyrowitz, J. 1998, 'Multiple Media Literacies', *Journal of Communication*, vol. 48, no. 1, pp. 96–108.
Na, E., Kim, E. and Park, S. 2009, 'Equality of Family Communication and Adolescents' Internet Dependency: Mediation of Self-efficacy and Family Conflicts', *Journal of Cybercommunication*, vol. 26, no. 4, pp. 5–49.
Notley, T. 2009, 'Young People, Online Networks, and Social Inclusion', *Journal of Computer-Mediated Communication*, vol. 14, no. 4, pp. 1208–27.
OFCOM 2006, *Media Literacy Audit: Report on Media Literacy Amongst Older People*, OFCOM, London, http://stakeholders.ofcom.org.uk/market-data-research/media-literacy/medlitpub/medlitpubrss/older.
O'Neill, B. 2010, 'Media Literacy and Communication Rights', *International Communication Gazette*, vol. 72, nos 4–5, pp. 323–38.
Park, S. 2009, 'Concentration of Internet Usage and Its Relation to Exposure to Negative Content: Does the Gender Gap Differ Among Adults and Adolescents?', *Women's Studies International Forum*, vol. 32, no. 2, pp. 98–107.
—— 2011, *Access to Digital Devices and Its Relationship to Digital Media Literacy: Record of the Communications Policy and Research Forum 2011*, Network Insight, Sydney.
Penman, R. and Turnbull, S. 2007, *Media Literacy: Concepts, Research and Regulatory Issues*, ACMA, Sydney.
Peter, J. and Valkenburg, P.M. 2006, 'Adolescents' Internet Use: Testing the "Disappearing Digital Divide" versus the "Emerging Digital Differentiation" Approach', *Poetics*, vol. 34, nos 4–5, pp. 293–305.
Pierson, J. 2010, *Tackling Social Exclusion*, 2nd ed., Routledge, London.
Potter, W.J. 1998, *Media Literacy*, Sage, Thousand Oaks, CA.
—— 2010, 'The State of Media Literacy', *Journal of Broadcasting and Electronic Media*, vol. 54, no. 4, pp. 675–96.

Saunders, P., Naidoo, Y. and Griffiths, M. 2007, *Towards New Indicators of Disadvantage: Deprivation and Social Exclusion in Australia*, Social Policy Research Centre, University of New South Wales, Sydney.
Savelsberg, H.J. and Martin-Giles, B.M. 2008, 'Young People on the Margins: Australian Studies of Social Exclusion', *Journal of Youth Studies*, vol. 11, no. 1, pp. 17–31.
Selwyn, N. 2006, 'Digital Division or Digital Decision? A Study of Non-users and Low-users of Computers', *Poetics*, vol. 34, nos 4–5, pp. 273–92.
Sourbati, M. 2009, 'Media Literacy and Universal Access in Europe', *The Information Society: An International Journal*, vol. 25, no. 4, pp. 248–54.
Stanley, L.D. 2003, 'Beyond Access: Psychosocial Barriers to Computer Literacy', *The Information Society: An International Journal*, vol. 19, no. 5, pp. 407–16.
Tanton, R., Harding, A., Daly, A., McNamara, J. and Yap, M. 2010, 'Australian Children at Risk of Social Exclusion: A Spatial Index for Gauging Relative Disadvantage', *Population, Space and Place*, vol. 16, no. 2, pp. 135–50.
Tsatsou, P. 2011, 'Digital Divides Revisited: What is New About Divides and Their Research?' *Media, Culture and Society*, vol. 33, no. 2, pp. 317–31.
Tichenor, P.J., Donohue, G.A. and Olien, C.N. 1970, 'Mass Media Flow and Differential Growth in Knowledge', *The Public Opinion Quarterly*, vol. 34, no. 2, pp. 15–70.
Todman, L.C., Taylor, S., Cochrane, K., Arbaugh-Korotko, J. and Berger, J. et al. 2009, 'Social Exclusion Indicators for the United States', *Journal of Individual Psychology* vol 65, no. 4, pp. 330–59.
Van Cuilenburg, J. and McQuail, D. 2003, 'Media Policy Paradigm Shifts', *European Journal of Communication*, vol. 18, no. 2, pp. 181–207.
Van Deursen, A. and van Dijk, J. 2010a, 'Internet Skills and the Digital Divide', *New Media and Society*, vol. 13 no. 6, pp. 893–911.
—— 2010b, 'Measuring Internet Skills', *International Journal of Human–Computer Interaction*, vol. 26, no. 10, pp. 891–916.
Van Dijk, J. 2004, 'Divides in Succession: Possession, Skills and Use of New Media for Societal Participation', in E.P. Bucy and J. Newhagen (eds), *Media Access: Social and Psychological Dimensions of New Technology Use*, LEA, Mahwah, NJ.
—— 2006, 'Digital Divide Research, Achievements and Shortcomings', *Poetics*, vol. 34, nos 4–5, pp. 221–35.
Vered, K.O. 2008, *Children and Media Outside the Home: Playing and Learning in After-School Care*, Palgrave Macmillan, New York.
Vicente, M.R. and Lopez, A.J. 2010, 'A Multidimensional Analysis of the Disability Digital Divide: Some Evidence for Internet Use', *Information Society*, no. 26, pp. 48–64.
VicHealth 2010, *Screen Stories and Community Connections: Final Report*, McCaughey Centre, University of Melbourne, Melbourne.
Vinson, T. 2007, *Dropping Off the Edge: The Distribution of Disadvantage in Australia*, Jesuit Social Services/ Catholic Social Services Australia, Melbourne.
Warschauer, M. 2002, 'Reconceptualising the Digital Divide', *First Monday*, vol. 7, no. 1, http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/967/888
—— 2010, 'Digital Divide', in M.J. Bates and M.N. Maack (eds), *Encyclopedia of Library and Information Sciences*, 3rd ed., Vol. 2, New York: CRC Press, pp. 1551–56.
Warschauer, M., Knobel, M. and Stone, L. 2004, 'Technology and Equity in Schooling: Deconstructing the Digital Divide', *Educational Policy*, vol. 18, no. 4, pp. 562–88.
Wartella, E.A., Lee, J.H. and Caplovitz, A.G. 2002, *Children and Interactive Media: Research Compendium Update*, Markle Foundation, New York.
World Internet Project 2010, *International Report 2010*, Center for the Digital Future, USC Annenberg School, Los Angeles.
Zickuhr, K. 2010, *Generations 2010: Pew Research Center's Internet and American Life Project*, Pew Research Center, Washington, DC.

Sora Park *is Associate Professor of Communication and Media Studies at the University of Canberra. Her research focuses on digital media users and media policy.*