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## Reconceptualising critical digital literacy

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While it has proved a useful concept during the past 20 years, the notion of ‘critical digital literacy’ requires rethinking in light of the fast-changing nature of young people’s digital practices. This paper contrasts long-established notions of ‘critical digital literacy’ (based primarily around the critical consumption of digital forms) with the recent turn towards ‘digital design literacy’ (based around the production of digital forms). In doing so, three challenges emerge for the continued relevance of critical digital literacy: (1) the challenge of critiquing the ideological concerns with the digital without alienating the individual’s personal affective response; (2) connecting collective concerns to do with social and educational inequalities to individual practices; and (3) cultivating a critical disposition in a context in which technical proficiency is prioritised. The paper then concludes by suggesting a model of ‘critical digital design’, offering a framework that might bridge the divide between critical literacy models and the more recent design-based literacy models.

**Keywords:** critical digital literacy; digital media; digital practices; education; design literacies; internet

### Introduction

In the contemporary era, the success of young people as students, engaged citizens and future employees has been linked to ‘digital literacy’. Some theorists claim that without the skills to use and evaluate the digital tools now found in most informal and formal contexts, students will be ‘left behind’ in various aspects of their lives – from employment to social interaction (Chase & Laufenberg, 2011; Meyers, Erickson, & Small, 2013). Defining what is meant by digital literacy however has proven complicated, as the spaces, texts and tools which contextualise such practices are continually changing. Perhaps for this reason, some commentators adopt broad definitions of digital literacies. Thorne (2013), for instance, offers a broad definition of digital literacies as ‘semiotic activity mediated by electronic media’ (p. 192), which, while accurate, avoids outlining the more specific skills and practices required. Other definitions of digital literacy have tended to fall into the categories of either mastery and operational proficiency, or evaluation and critique (Lankshear & Knobel, 2011). For example, Jones and Hafner (2012) define digital literacy along proficiency lines, which involves operating digital tools and ‘the ability to adapt the affordances and constraints of these tools to particular circumstances’ (p. 13). Whereas Gilster (in Pool, 1997, p. 9) argues digital literacy is about ‘knowledge assembly’ and ‘how to assimilate the information, evaluate it, and reintegrate it’.

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While these definitions have all been successfully operationalised in various settings, there is a growing sense that they cannot account for the diverse and dispersed range of digital practices and processes of everyday life. Indeed, the increased complexity of contemporary digital contexts has caused several researchers to call for new frameworks through which to study and develop these new literacies (Avila & Pandya, 2013; Coiro et al., 2008). Further tensions arise when faced with the task of defining what it means to engage critically with digital media. For example, it could be considered a set of ‘skills and practices’ (Avila & Pandya, 2013, p. 2), a form of curatorship (Potter, 2012) or empowering consumers to shape content (Jenkins, 2008). Indeed, the multiple forms of critical digital literacy reflect the array of academic disciplines involved with this area of research and their different theoretical underpinnings and goals. Against this backdrop there is clearly a need for continuing to challenge and test what we mean by critical digital literacy in the complex, contemporary digital landscape.

### **Tensions within academic understandings of ‘critical’ digital literacy**

#### *A critical literacy approach – an ethical analysis*

The development of a distinct ‘critical digital literacy’ and its relationship with education has been approached in a number of different ways. First, there is the straightforward notion of the critical consumption of digital forms. Beginning in the late 1980s, a variety of models provided theoretical frameworks for critical digital literacy education along these lines. These models built on sociocultural perspectives of literacy and sought to contextualise digital practice within history, culture and power. Within these models criticality is framed in such a way that it can be translated across contexts and media. For example, Bill Green’s (1988) three-dimensional model of literacy involves operational, cultural and critical dimensions, thereby scaffolding the individual into transforming and producing meaning through their literacy practices. At the time, this represented an expanded notion of literacy, with the operational concerned with effective language use, the cultural with meaning and the critical with power (Green, 2002, p. 27). Janks (2000) identifies an ability to ‘understand and manage the relationship between language and power’ (p. 175) as the key concern of critical literacy. She argues that issues of domination, access, diversity and design should be seen as enterprises that are ‘crucially interdependent’ (p. 178) and that ‘deconstruction without reconstruction or design reduces human agency’ (p. 178). Similarly, Luke’s (2000) definition of critical literacy involves three components: the first is ‘metaknowledge’ of ‘meaning systems and the sociocultural contexts in which they are produced and embedded’; the second involves the technical skills to negotiate these systems; and the final ‘involves the capacity to understand how these systems and skills operate in the interests of power’ (p. 72).

In each of these approaches, the two components of digital literacy outlined earlier – the mastery of the technical and/or an evaluative or critical component – are evident. Yet there is little in these conceptualisations of critical digital literacy that appears specifically ‘digital’ in focus, and as such, they can be applied across contexts and media. This neglect of what is specifically distinct about the digital context is also evident in more recent definitions of critical digital literacy. For example, Avila and Pandya (2013) describe critical digital literacy as having two goals: ‘to investigate manifestations of power relations in texts, and to design, and in some cases redesign, texts in ways that serve other, less powerful interests’ (p. 3). While design and production are considered in these models, the more important component – essentially what ‘redesign’ relies on – is

recognising how the forces and effects of ideology and power manifest in the text. In the digital context, this presents a set of new and unique challenges to literacy. Nevertheless, these critical digital models echo Freire's (1970) critical pedagogy, where the goal of literacy education is to overturn social and political inequalities. Some theorists like Area and Pessoa (2012), for example, argue that digital literacy equates to no less than a civic education – therefore underscoring the social and moral obligations developed as part of an individual's digital literacy competencies. In a similar way, Douglas Kellner (2001) advocates a return to the instructional principles of Dewey by highlighting the connections between education and democracy. He writes that without the 'proper resources, pedagogy, and educational practices' (p. 68), technology has the potential to increase the existing divisions of cultural capital, power and wealth. Indeed, a key feature of this approach is that it focuses on analysing ideology, which requires the individual to adopt an ethical perspective on their engagement with digital forms.

### *A critical media literacy approach – acknowledging the personal*

In response to this more objective approach to critique, another strand of critical digital literacy has emerged which sought to highlight the personal experiences of the individual. As part of this approach the ideological is downgraded, while the 'politics of pleasure' (Alvermann, 2004) is foregrounded. British media theorists like Buckingham (2003) and Sefton-Green (1998) have drawn attention to young people's everyday use of digital texts in which a 'correct' ideological reading of these texts is less important than how they connect with learner's lives. The problem with contemporary forms of critical literacy, Buckingham (2003) asserts, is that they tend to be based around one commonly perceived reading of political correctness that an educator imparts to their students. In this model, students are seen as 'victims of media manipulation' (p. 118), while the educator acts as gatekeeper over the knowledge and skills that will liberate them from the repressive ideologies expressed through popular media. Buckingham (2003) describes this didactic, politically correct approach to critical literacy as 'self-aggrandising' (p. 108) on the part of the researchers and educators involved. Drawing on the work of Masterman (1985), Buckingham (2003) instead argues that the goal of critical literacy is 'not simply critical awareness and understanding, it is critical autonomy' (p. 107). In this approach, critical analysis provides opportunities for 'identity work' (p. 109) in which a variety of social identities can be experimented with. Also highlighting the personal aspect of critique, John Potter (2012) describes the production and representation of identity through digital media as a type of 'self-curatorship'. In a study on postgraduate students and blogging, Potter and Banaji (2011) highlighted the ability of participants to work through 'how learner and teacher identity plays out in an era in which self-curatorship is a key skill and disposition in new media' (p. 89). These researchers concluded that there was nothing inherently new in this process; however, it was rendered 'newly visible' (p. 89), thereby offering points for reflection and analysis. Self-curatorship therefore emerged as a form of critical consumption in which the axial point was the individual.

Other models have also focused on the individual in developing critical skills in specific digital contexts. Burnett and Merchant's (2011) 'Tri-partite Model' of critical practice specifically targets social media. Building on Greenhow and Robelia's (2009) idea of 'advantageous online community practices' (p. 136), Burnett and Merchant advance a conceptual model that highlights the inter-relationships between identity, practice and networks that take place around, through and outside social media.

This shifts the focus of the model from the media to be critiqued to how the individual engages with these, integrating identity with critical practice. They write:

Critical practice in this context may be less about digital technology as an abstract force (one that considers how it might structure our thoughts and actions) and more about an interrogation and evaluation of what we and others are actually doing on and off-line. (p. 51)

This model marks a shift in the locus of practice that may be more suitable for networked, fluid texts like social media. They argue that using social media is a usually pleasurable pursuit, so any critical practice needs to balance learner interest with more serious pedagogical aims (Burnett & Merchant, 2011). This approach treats the individual's personal response to digital forms as a type of 'resource' from which to explore the formation of their beliefs, values and responses. In this approach, critical literacy is therefore linked to the process of shaping social identities.

### *Digital design literacies – the importance of making*

Sitting alongside the corpus of work on critical engagement with digital media is a more recent perspective on how key issues of digital literacy can be addressed. The 'design turn' in literacy studies loosely refers to the idea that unpacking and examining the processes of digital design in an educational setting lead the learner to a critical and practical knowledge of digital text production – a critical digital literacy. The New London Group (1996) first introduced 'design' as a key component of literacy education in their work on multiliteracies to acknowledge, among other things, the changes in communication brought about by new technologies. In its original instantiation, design was seen as a key tool that learners might draw upon to devise their 'social futures' (p. 4). However, in recent years, the idea of design has focused more specifically on the digital context and is becoming an increasingly popular method of digital literacy education. Key to the latest 'design turn' is the work of Gunther Kress (2003), but variations of this theme have arisen in the work of Mary Sheridan and Jennifer Rowsell (2010), Henry Jenkins (2006) and David Gauntlett (2011). Unlike the two approaches described earlier that originate from non-digital contexts, digital design literacies respond more specifically to the digital context and therefore represent a potential way forward for critical digital literacy. While this approach is focused on the outcomes of making, creating and producing, it provides an avenue for individuals to express their ideas, values and beliefs and in this way can mobilise personal or affective responses to digital texts.

In *Literacies in the New Media Age*, Kress (2003) argues that the 'world of communication is now constituted in ways that make it imperative to highlight the concept of design, rather than concepts such as acquisition, or competence, or critique' (pp. 36–37). This is not only due to temporal changes in communication and production brought about by digital technology but also the dominance of the visual mode on screen. Crucially, what design emphasises is the desire or interest of the text-maker, essentially providing a relative point of reference in a seemingly unstable and 'chaotic' social environment. Kress argues that traditional forms of ideological critique are less important as these were forged out of a particular time that relied on dynamic change to revivify the system. While critique is 'oriented backward and toward superior power' (Kress, 2010, p. 6), design 'shapes the future through deliberate deployment of representational resources in the designer's interest' (Kress, 1997, p. 77). In a study of professional

designers, Sheridan and Rowsell (2010) elaborate Kress's notion of design to better understand the aesthetic and logistical forces that are brought to bear through the process of production. As they explain, becoming a 'producer' can help instil positive literacy and intellectual practices in learners, by moving 'beyond the typical schooling practices of restating and critique' (Sheridan & Rowsell, 2010, p. 111). In this way, it is argued that design literacies provide a useful way to build individual agency via an immanent, technical form of critique.

Indeed, there is growing interest in new literacy models based around the idea of design. While appealing, it is important to consider how the focus of literacy has shifted within this recent design turn. In a report for the Macarthur Foundation, *Confronting the Challenges of Participatory Culture*, Jenkins (2006) identifies 12 skills as characteristics for literacy in the digital environment. Much of what the report describes involves negotiation of the tools and texts encountered in digital contexts, so young people are empowered and active contributors. Underpinning Jenkins' notion of participatory culture is the fact that 'members believe their contributions matter and feel some degree of connection with one another' (p. 3), thereby highlighting the social and cultural aspects of participation at the expense of any political aspects (Fuchs, 2014). Interestingly, of the 12 skills outlined in Jenkins' report only one of these – 'Judgment' – is explicitly concerned with what might be traditionally considered critical literacy skills. In this context, it appears critique is concerned with the credibility and reliability of information and not the more difficult questions of power, ideology and discourse. Jenkins' 12 skills scaffold the individual to work within the current 'system' of digital media and technology, rather than to challenge, question or critique it. Fuchs (2014) underscores this point when he describes the skills as 'activities that can all work well in a company context' (p. 56) and do not include any critical thinking.

Adopting a slightly different version of the design framework is David Gauntlett (2011) who argues that 'real' learning takes place when people make and create. Indeed, Gauntlett's work is indicative of a wider 'maker movement' that will, according to some, transform learning through its hands on, do it yourself approach. The overarching focus of the maker movement is on the creation of 'new' things, while along the way learning skills of mastery and critique. In this context, critique is seen as an ability to imagine innovative and alternative creations and practices. It could be argued, however, that the design turn in digital literacy mitigates the political orientations of critique under the guise of 'creativity', which is, by nature, more social and aesthetic in orientation. Mark Readman (2013), for example, describes creativity as a 'convenient cipher' (p. 169) for critical engagement at a time when criticality is a 'vital necessity' (p. 161). While a digital design model of literacy celebrates notions of individual agency, in its current form this approach does not involve a critique of agentic issues such as the ownership of digital media platforms or their governance – leaving the underlying ideology of the digital contexts largely unquestioned. Instead, in place of critique the object or creation of design is fetishised and the 'critical dimension is muted' (Wark, 2013, p. 302). Prioritising the 'products' or outcomes of learning in this way certainly fits with the demands of a 'knowledge economy' (Readman, 2013). However, if critical thinking is to remain within the digital literacy paradigm then an important question to consider is how digital design can use creativity to move beyond the personal to consider issues of a political and ethical nature.

### **Overcoming the limitations within academic models of critical digital literacy – meeting the needs of the individual**

While some models acknowledge elements of all three orientations – the ethical, the personal and the maker – each orientation has a particular emphasis which, when applied in teaching and learning contexts becomes even further accentuated. In the current digital context, it therefore becomes difficult for any one of these models to account completely for the increasing complexity and diversity of practices. As the contemporary digital landscape is ‘itself converging, diverging [and] complicating’ (Livingstone, 2013, p. 7), the very definition of what critical digital literacy refers to is inevitably contested, leading to a variety of academic approaches underpinned by particular values and priorities. As a result, it appears difficult for any of the models outlined to explore affective and creative responses to digital forms *and* critique broader concerns to do with discourse, ideology and power in a specifically digital context. Crudely put, critical digital literacy has evolved to become largely positioned as an either/or proposition: where critique of the digital context is focused on either critical consumption or creative production; and builds either the technical skills of design or the more general, theoretical skills of critique. Such binary opposition has fragmented critical digital literacy along theoretical lines that ultimately prevent the framework from meeting the needs of its target audience – the individual.

In order to advance the abstract, academic debate surrounding critical digital literacy, we might first begin by taking stock of the needs and practices of the individual. Of course, the individual in everyday life does not divide their digital practices according to binary oppositions, but instead moves fluidly between the ethical and the personal; the objective and the subjective; the creative and the critical. Practices spread across digital contexts and include social, cultural and political elements. Seen in this light, any attempt to foster critical digital literacy with young people needs to reconcile these binaries. However, in order to improve the efficacy of critical digital literacy, it is important to examine the binaries upon which these academic approaches have been fragmented. In doing this, future conceptions of critical digital literacy might overcome these tensions to provide a framework that is more responsive to current contexts and practices. These tensions can be seen as existing in at least three different ways:

#### ***The ‘ideological’ and the ‘personal’***

A significant challenge lies in reconciling an ideological critique with the individual’s personal and affective experiences of digital media. There are two strands to this challenge. First, is how critical digital literacy can cultivate a dispassionate, critical disposition in a context that invests deeply in the personal and affective. Second, is how a more nuanced understanding of power and ideology within the digital medium might be developed. Reconciling these priorities might begin by recognising that ideology is intrinsic to the personal and affective experiences of texts. Misson and Morgan (2006) explain that ‘it is often the coherence that ideology provides that is the very source of emotional power’ (p. 88). Indeed, digital texts provoke emotion because they reference or reflect a reality shaped by ideology that has particular meaning to the individual. Unpacking and understanding how ideology is made affective and personal could therefore become a powerful method of critique in the digital context. In this way the individual is the axial point; however, their personal experiences might be a ‘portal’ through which to explore the deeper ideologies that structure the reality of the digital context.

While digital practices are being married to broader social and political concerns in the classroom (see Tate, 2011), a more difficult prospect lies in understanding the ideological ‘architecture’ of the digital, which by nature is more complex and opaque. However, if critical digital literacy is to transform digital practices then developing an understanding of these concepts is necessary. An ideological critique might therefore involve developing an awareness of the dominant ideologies that underpin digital technology, the way ideology and the political economy intersect to create power asymmetries in the digital context, and how these processes are applied through targeted advertising and consumer culture.

#### *‘Collective concerns’ and ‘individual practices’*

Another tension lies in reconciling collective concerns around social and educational inequalities with the more individualised practices that have been encouraged by digital media. In many ways the word ‘user’ reflects the libertarian and neoliberal ideologies that underpin contemporary technology (Selwyn, 2014), positioning the individual as a user or consumer of resources rather than an active, engaged citizen. Lovink and Rossiter (2005), for example, assert that the ‘user’ is the ‘identity par excellence of capital’ and that ties to the collective are so ‘loose’ online that they are at ‘the point of breaking up’ (n.p.). This might, in part, explain the increasing interest in design literacies in which the agency of the individual is prioritised. However, it is important to remember that using technology is not in and of itself educational or revolutionary. Constructive use of digital technology requires ongoing analysis and interpretation to not only ensure that we make the most of our digital experiences but also that our practices are ethical and avoid the exploitation or manipulation of others. To be transformative to the individual *and* society, critical digital literacy should therefore provide opportunities to examine broader issues associated with digital media use. This might include examining how digital technologies reinforce issues of social class, race and gender and what might be done to challenge and overturn exploitation and inequality.

#### *‘Technical mastery’ and a ‘critical disposition’*

If we accept that digital technology is part of a techno-social system, then digital literacy has to encompass much more than a set of technical skills (Fuchs, 2014). Learning within a techno-social system involves technical mastery *and* inquiry, analysis and critique. However, a critical disposition is not often equated with productive and successful behaviour in the digital context. As Lovink and Rossiter (2005) explain ‘It takes effort to reflect on distrust as a productive principle’ (n.p.). Perhaps this explains why school-based digital literacy programmes are showing a clear preference for a technical, design approach to digital literacy. In 2014, the UK national curriculum for computing aims to teach students coding from Stage 1 (aged 5–7 years),<sup>1</sup> and in Australia, the National Curriculum will introduce two new compulsory subjects for all students in primary and secondary school which seek to develop ‘design thinking’ and the ability to ‘define, design and implement digital solutions’.<sup>2</sup> Indeed, learning to code is considered by some as not only important to an ‘individuals’ future career prospects’ but also to their ‘countries’ economic competitiveness’ and technological future (Gardiner, 2014).

While learning how to use and manipulate digital technology is important, without an understanding of the role humans play in questioning, challenging and therefore shaping this techno-social system, then the scope of digital literacy is limited. A reconceptualised



critical digital literacy might therefore provide opportunities to consider and critique the broader social, political and economic issues, alongside programmes that seek to develop technical mastery. Rather than contextually bound notions of ‘skills’ and ‘practices’, a critical disposition would be transferrable across digital contexts and consequently more relevant to the fast-paced realities of everyday digital contexts and digital practices. A critical disposition might encompass a form of curatorship, but would encourage the individual to include a degree of scepticism in their approach so that the culture that created such tools and practices might also be critically evaluated (Honn, 2013). This prevents digital practices and tools from appearing as a series of ‘natural’, inevitable processes which become uncritically inscribed into daily life. The challenge for critical digital literacy, however, lies in encouraging the individual to move between these mindsets (i.e., critical and technical) as part of their digital practices.

### **Critical digital design – towards a new framework for digital literacy**

This paper concludes by sketching out the beginnings of a framework that might go some way towards addressing these issues – what might be called ‘critical digital design’. In addition to concerns of ‘design’, critical digital design can be thought of as a deliberately political model of digital literacy in which complex and detailed understandings of discourse, ideology and power in the digital context are scaffolded. It aims to analyse the specific multimodal features of digital texts, as well as the general architecture of digital technology and the Internet, so that a more comprehensive and nuanced understanding of these concepts is developed in the learner. In comparison to digital design models, critical digital design focuses more on how this architecture manifests and maintains systems of power and privilege; however, unlike more traditional models of critique it aims to ‘launch’ this from a more personal position so that an individual’s beliefs and emotions might be used to guide the analysis. While critique begins with the individual there are opportunities for collectivism not only through group reflection but also in considering concerns around social and educational inequalities. This collective approach ‘speaks back’ to the more individualised practices that typically characterise digital technology use.

The practices that distinguish critical digital design from other digital literacy models involve practical attempts to reconcile the binary oppositions evident in critical digital literacy and digital design literacies. While any approach is likely to involve a range of practices and pedagogies, the aim here is to explain the techniques that are new in this context and that might therefore reconceptualise critical digital literacy. Rather than focusing on specific technologies, these practices aim to explore and expand on the human, interpretative process associated with digital media use. These include:

#### ***Transcendental critique***

Fundamental to critical digital design is the reinstatement of a transcendental critique or a critical distance from digital networks (Taylor, 2006), in which social and political issues related to digital media might be examined. The speed and ephemerality of information in the digital era have caused many theorists to argue that the ‘separate space’ from which to launch critical analysis has been lost; critique must be immanent and take place from inside of the information order’ (Lash, 2002, p. 176). Like others (e.g. Kress, 2010), Lash equates critique with the ability to exert control from *within* by refashioning and reappropriating digital media to suit our needs and desires, marking what some call a decidedly affirmative

version of critique (Taylor & Ruiz, 2007). There are intrinsic difficulties associated with critique in the digital era; however, a transcendental perspective enables a different kind of analysis. Cultivating a transcendental position *external* to digital media might encourage the examination of social and political issues related to digital media use, and provoke critical reflection on personal digital practices and identities. A transcendental critique might be achieved by creating a sense of ‘distance’ from digital media through a series of activities and provocations that decontextualise everyday use and therefore encourage the individual to reassess, reflect and renew their engagement with it. Subsequent to this, technical skills might then be used to realise positive changes, not only to individual digital practices but also to society more broadly. Indeed, the success of each of the practices described below is reliant to some degree on the cultivation of a transcendental perspective.

### **Visualisation**

Visualisation of digital networks might increase the cognitive tools with which the digital context might be conceived and approached. It would draw on digital aesthetics and data visualisation (Manovich, 2013) to decontextualise or defamiliarise digital texts, tools and practices with the goal of suspending or interrupting commonly held assumptions and views. This might lead to a clearer understanding of the architecture of the digital context and its ideological underpinnings, countering the ‘neosymbolism’ (Galloway, 2011) that has come to dominate thinking in and around the digital. At the same time, visualisation would expand the realm of possibilities available for daily digital practices and redesign. As a practice, visualisation could also help to unpack and understand the metaphors which organise our interaction with digital media and networks. As van den Boomen (2014) argues:

If metaphors structurally encapsulate digital practices we may wonder what they ... do to our understanding of digital code, and what this means for digital code’s far reaching implications for culture and society. (p. 13)

The main purpose of visualisation would therefore be to develop a more practical and in-depth understanding of digital networks, while at the same time questioning the conceptual tools that shape our engagement. However, visualisation could also be used to chart reimagined and restructured digital networks.

### **Critical self-reflection**

Critical self-reflection might be used to explore the relationship between personal, affective responses to digital texts and broader ideological concerns. Rather than seeing these two aspects of digital media as oppositional, through critical self-reflection the personal becomes a ‘conduit’ to the ideological. This practice might begin with analysis of personal digital practices, but through analysis, discovery and provocation these practices become, in a sense, ‘objectified’ and are therefore seen as symptomatic of the wider digital context. Exploring personal digital histories with particular focus on how these are shaped by particular digital discourses is one way in which dominant ideologies might be questioned. Such a process might also encourage the individual to see their identity as fluid thereby resisting the inclination to essentialise identity to any one community (Janks, 2010) or digital platform. Critical self-reflection therefore becomes a way in which the individual can move between the personal and the ideological while exploring and analysing

concepts that are embedded in digital technologies and networks. Such a process is not simply the cataloguing of digital practices, but involves some degree of discomfort, as broader social and political issues are drawn into the exploration and ultimately linked to individual practices. As Megan Boler (1999) writes, without the critical dimension self-reflection can be ‘reduced to a form of solipsism’ (p. 178). While critical self-reflection involves ‘discomfort’, it has the potential to be genuinely transformative to the individual and society. Indeed, ‘discomfort’ might be the result of relating the personal to the ideological; nevertheless it is perhaps the only way in which critical digital design might be genuinely transformative. If successfully implemented critical self-reflection encourages the individual to see personal digital practices as a form of political engagement.

### *Interpretation and re-articulation of digital concepts*

Reconciling collective concerns with individual practices might also involve questioning the rhetoric that has come to shape the way we think about digital media. For example, to describe web 2.0 as a ‘participatory culture’ (Jenkins, 2006) and social media as a ‘networked public’ (Boyd, 2014) automatically link these platforms to concepts of freedom, democracy and civic engagement. Such descriptions develop positive associations that ultimately conceal some of the more complex and confronting issues of digital media use (Fuchs, 2014). Peeling back this rhetoric to understand the reality of digital systems is therefore an important part of developing a critical disposition towards digital media. In addition, questioning what concepts like *free*, *friend*, *link*, *like*, *community*, *share*, *collaboration* and *open* actually represent in the digital context might result in a more conscious and knowing mode of engagement. This practice would not only question assumed definitions but also explore how and why these phrases have been redefined in the digital context. A second step in this process would involve the re-articulation (Apple, 2013) of these concepts, where they might be applied in alternative ways that seek to counter hegemonic discourse.

### **Towards a future research agenda**

Given the tensions evident in the approaches outlined in this paper there is clearly a need for future research in this area. However, with the recent hype surrounding coding in schools, the ‘maker’ movement and the shift to design approaches to digital literacy, there is the possibility that research investigating social and political understandings of digital media will be deprioritised. Indeed, there are many approaches to critical digital literacy and these require ongoing evaluation and exploration to ensure the model is responsive to the dynamic nature of the digital landscape. From this perspective the following questions point to some areas that require further ongoing and in-depth research and investigation:

- How does the digital context reconfigure critical literacy practices?
- What is meant by critical digital literacy and how might it be practised?
- What sort of critical understandings do young people have of digital media? In what ways are these applied in daily digital practices?
- What sorts of practices and techniques have successfully developed critical digital literacy?
- What are the short- and long-term consequences of a digital literacy that does not include an ideological critique?

This paper has presented a speculative framework for critical digital design that inevitably raises more questions than it answers. However, the viability of the framework is currently being tested through a study in which visualisation, critical self-reflection and transcendentalism are explored as techniques of a reconceptualised approach to critical digital literacy. It is hoped that the study's findings will lead to the formulation of an evidence-based framework for critical digital design.

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### Notes

1. See <https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study>
2. See <http://consultation.australiancurriculum.edu.au/Static/docs/Technologies/Draft%20Australia%20Curriculum%20Technologies%20-%20February%202013.pdf>

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