

Towards a Transformative Digital Literacies Pedagogy

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English abstract

There is a pedagogic chasm between monomodal literacy practices of the past, still dominating most children's school experience, and the multimodal, dynamic publishing practices that children increasingly routinely engage in with new media and online spaces. This paper will utilise the findings of three case studies, drawing from them the implications each has for developing a pedagogy that best reflects new kinds of practices within digital and multimodal literacies. Using the knowledge gleaned from each of the case studies, this paper will begin to explore what is required for a meaningful transformative pedagogy of digital literacies: a pedagogy which offers students opportunities to use learning to become active citizens beyond the classroom and into their future lives.

Keywords: Digital literacy, literacies, socio-cultural, multimodality, multiliteracies, play.

Key characteristics of digital literacy

This paper explores what is required for a meaningful pedagogy of digital literacy, by reviewing the relevant literature and drawing briefly upon three research-based case studies. It broadly considers how digital literacy may be conceived of as being a subset of a broader conception of literacy itself, and consequently is framed theoretically within socio-cultural perspectives of literacy (Barton and Hamilton, 1998; Street, 1995), that is, literacy is a function of social practice, social context, and discourse (Gee, 2003). More specifically, the paper identifies a number of significant characteristics of digital literacy that are imperative to include in a pedagogy of digital literacy in order to make it a transformative pedagogy. These include: explicit understandings of multimodality, opportunities for play and experimentation, participating within communities of practice, and critical engagement with text.

It is helpful to understand that historically, socio-cultural conceptions of literacy were driven by a number of theoretical positions including the work of Bakhtin (1981), Foucault (1980), Derrida (in Collins, 1996), Bourdieu (1998) and Freire (1972; 1995). This work included understanding key concepts such as: the nature of heteroglossia (texts represent multiple voices and ideologies at play); discourse can construct identities and position readers in different ways; text involves the play of silence, presence, power, authority; and that literacy can generate the conditions for people to reshape their identities with respect to the dominant ideologies in force in culture. Drawing on Luke (2000), the pedagogical shift marked by these conceptual positions saw classrooms moving away from focusing on literacy as something “within”, to “...an explicit pedagogy of critical vocabularies for talking about what reading and writing and texts and discourses do in everyday life” (Luke, 2000, p.453). In Australian classrooms this has resulted in a rich practice of critical thinking, interpretation and analysis of texts, and considerations of “the normative fields of power, value, [and] exchange” (Luke, 2000, p.453) within texts and their cultural contexts.

Within the dominant paradigm of current thinking about literacy there are notions that texts are heteroglossic (they represent different voices in which struggles and ideology come into play). Texts can moreover shape identity and social relations (Foucault, 1980), they can involve silences and exclusions (Collins, 1996), and they can be traced to ideological representations (Halliday, 1985) and occur within certain kinds of discursive and social practices (Fairclough, 1992).

The notion of text can be contested. Derrida claims that “everything is a text” (as cited in Collins, 1996). A room, an avatar, a museum, an art gallery – all of these are texts which can be interpreted and read, and constructed to portray meaning. As we have seen a shift from the privileging of words to a broader understanding of semiotic systems, and an understanding of what we mean by text, we have begun to speak in terms of multiplicities: multiple forms can be texts, and texts can be multimodal – a concept the New London Group calls “Multiliteracies” (New London Group, 1997).

With the emergence of new media in an increasingly technological world, a revaluation of all modes of signification has impacted the ways in which teachers conceptualise literacy. There has been an increasing focus on visual texts, and texts of new media (Kress and van Leeuwen, 1996; New London Group, 1997), leading to a conception of textuality as multimodal, and theories of multiliteracies and multimodality (Unsworth, 2001; Quinn, 2004) moved teachers away from the privileging of linguistic modes and toward a view of semiotics which accounted for all modes. Drawing on the work of Halliday (1985), multiliteracies theorists emphasized the development of a metalanguage

to address the ways words, images, sounds, and all forms of multimedia texts are constructed and how they create meaning within particular contexts.

The key tenet of multiliteracies, building on Freire's critical pedagogy, was that we need to prepare children for their social and economic futures through transformative pedagogies. Transformative pedagogy involves knowledge-building within communities of experts, providing students with access to power and leadership, and also providing explicit instruction on how multimodal texts work to achieve their purposes. Transformative pedagogy is critical, it is participatory and it is dialogic.

From these theoretical understandings, I would suggest that digital literacy is an umbrella term describing the various social, discursive and textual practices which occur within communities using digital technologies. Because of our understanding of multiliteracies and multiplicities, we may talk about digital literacy in the plural form, as there exists a multiplicity of "digital literacies".

One of the complexities for teachers with multimodal views of textuality is that whilst there has been a long history of schooling with the spoken and written word, knowledge about the changing dimensions of literacy has taken considerable time to translate into teaching practices (Chandler-Olcott & Mahar, 2003; Hinchman et al., 2004). In Australia there has traditionally been a very quick uptake of theory into practice (Luke, 2000), such as the widespread adoption of critical literacy as an overarching framework for classroom literacy. Visual literacy and the recognition of images as a semiotic resource for meaning-making has also been part of most states' curriculum documents for over a decade. Yet it is safe to say that, as far as technology and digital resourcing of schools goes, Australia has been very conservative (Williams, 2005). Consequently, rich and worthwhile practices with multimodal and digital texts have, until now, only been seen in pockets of schools, private schools, or schools that are piloting particular programs.

In their recent Horizon Report (Johnson, Levine and Smith, 2009), the New Media Consortium argues that societal and technological change have impacted significantly on young people's lives, and that students of the 21st century are different to students of the last century. They point out that digital literacy is not about the tools, but about our thinking, and thinking critically about the texts that shape our identities, our lives and our culture. They call for an educational reform that must be rapid and radical if we are to provide our students with the skills they need for becoming literate global citizens.

In previous studies, Thomas (2005, 2007) found the need to look beyond the classroom to understand students' digital literacies practices, in order to explore the very rich and complex practices in out of school contexts. In particular, Thomas (2007) provides detailed accounts of what young people are doing online so that teachers can explicitly use what is learned from them in a focused educational context. Of the three case studies below, one reflects research conducted within a school context, whilst the others are research projects focusing on out-of-school contexts.

Case studies

Case Study 1: Multimodal authoring project

The multimodal authoring project is an ARC (Australian Research Council) funded project currently being conducted by Angela Thomas from the University of Tasmania and Professor Len

Unsworth from the University of New England in collaboration with the Australian Children's Television Foundation. The aims of the project are to provide an account of children's innovative, transformative and critical multimodal stories, and to develop a transformative pedagogy for multimodal authoring with the teaching of explicit multimodal metalanguage. At the heart of this project is the recognition that schools and teachers need to find optimum ways to work with multimodal, digital texts in their classrooms, and indeed to reconceptualise literacy in schools to account for multimodality.

This project involves schools from across Australia, in both urban and rural areas. Using a 3D animation software program called Kahootz, teachers are trained in visual literacy, film literacy and the technological requirements of Kahootz to create machinima (movies using gaming platforms) in 3D worlds. Teachers then work with their various classes across a range of contexts with a semi-structured plan of work, allowing students time to explore, collaborate and experiment with their own machinima. The pedagogy provides a range of open ended tasks that allow students to analyse and evaluate ways to communicate multimodal meanings, and is structured to provide both meaningful contexts for play and explicit teaching of multimodal grammatical design.

The focus on grammatical design was for the purpose of ensuring students gained a critical media literacy (Kellner and Share, 2007), by which they could create richly layered texts that deployed linguistic, visual, gestural and aural resources to make meanings. The explicit teaching of both a metalanguage of semiotics and of the ways a story can be told through the texturing of these semiotics facilitates students' strategic and aesthetic construction of multimedia texts. The need for explicit teaching of multimodal grammatical design has been emphasised in studies of middle school students' use of animation and digital video (Burn & Durran, 2006; Burn & Leach, 2004; Burn & Parker, 2003). This work showed that when grammatical design was taught, students made very sophisticated commentaries on their reformulated movie texts (Burn & Durran, 2006). The students' creative transformation of the uses of software facilitated their development of grammatical design knowledge in an enjoyable manner (Burn & Durran, 2006).

As noted by Chandler, O'Brien and Unsworth (2010) one of the unique features of the research design was to provide a "sandpit" whereby students can play in the 3D world at the same time as they develop their storyboard, promoting an iterative process between play and story development.

We have therefore come to see this dynamic interaction between the computer environment and 2D planning as beneficial, and indeed a continued 'playful' interaction is important for the psychology of learning associated with this a 3D authoring environment... Our work moves forward on the assumption that planning is important, but is non-linear and not constrained to one form of representation. Grammatical design is not only learnt through explicit teaching in the 'development of literacy/thinking' phase but also through this kind of playful interaction. (Chandler, O'Brien and Unsworth, 2010, p.8)

This notion of play is significant. Galarneau (2007) defines play as a critical skill and a productive phenomenon with a potential for authentic learning that should be leveraged in the classroom. Play can be a motivator for learning and can provide a safe context for intellectual and creative freedom that leads to risk taking, experimenting, problem solving and innovation. Galarneau furthermore calls for a reframing of play by stating:

...play and learning take on new dimensions within the context of an increasingly participatory culture that blurs traditional boundaries between ... teachers and learners. ... learning is a systematic

activity where the contributions of the individual contribute to the larger collective intelligence, and learning is often a by-product of play or creativity. (Galarneau (2007, p.1)

Play incorporated into pedagogical practices is emphasized as a means for thoughtful, creative, critical and authentic learning in a number of previous studies (Thomas, 2007; Thomas, 2008), so this was a crucial factor to incorporate into the pedagogy.

Each researcher on this project selected and worked in focus schools that reflected the diversity of Australian schools. In my sample classes, students are beginning to create complex animated stories. In their early work, they learned a metalanguage for multimodality, explored Kahootz, and created simple retellings of known fairy tales, such as Little Miss Muffet, as they experimented with all of these new concepts. Figure 1 is an example of one of the student storyboards, which creates a retelling in the horror genre:

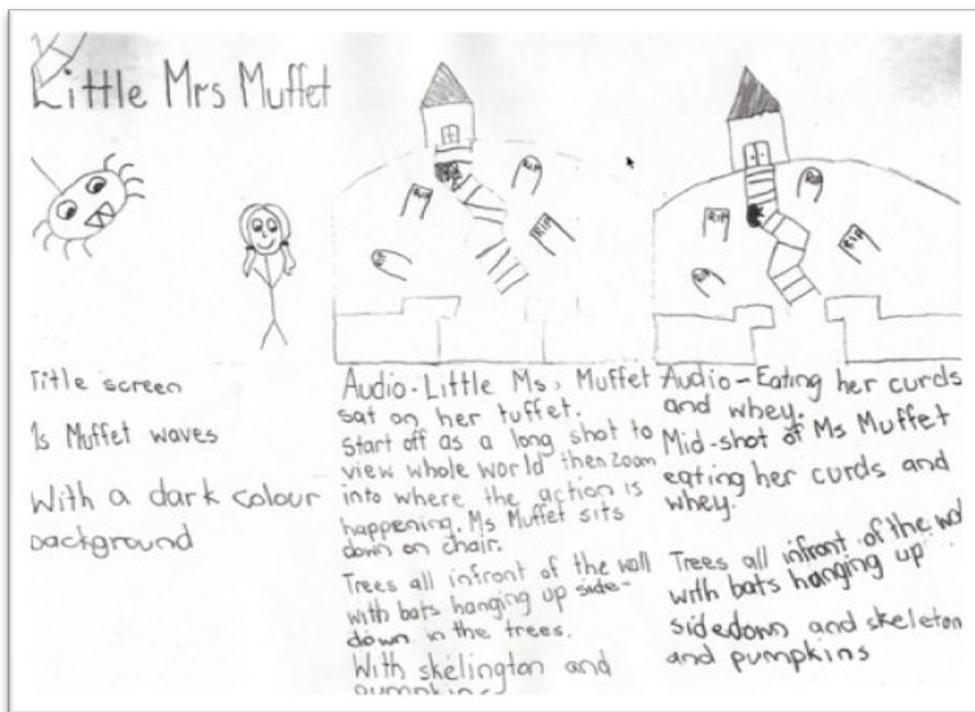


Figure 1. Child's storyboard

The Kahootz animation functionality was used to realize this, as seen in Figure 2.

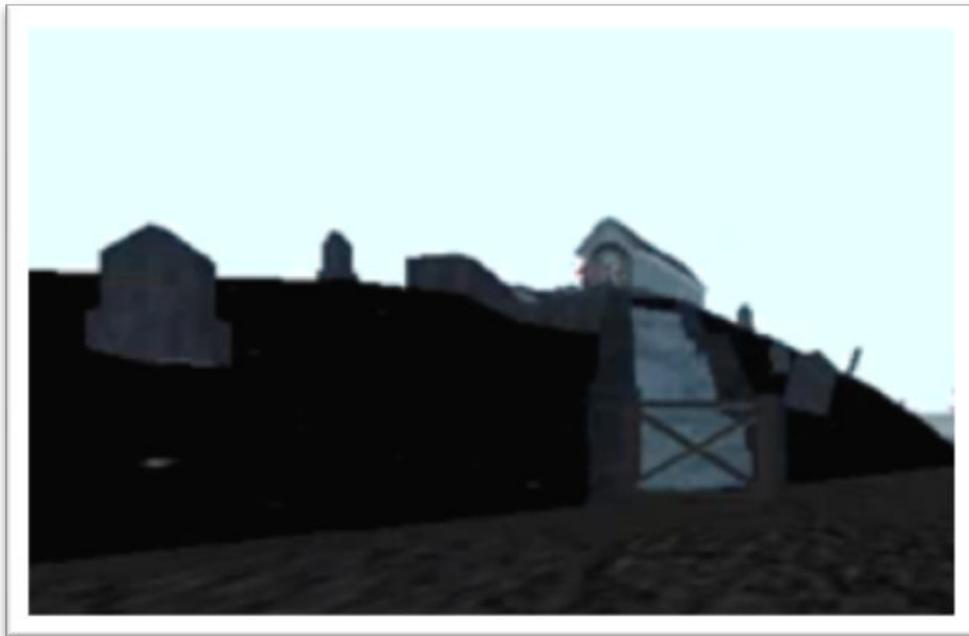


Figure 2. Child's virtual environment

Although this may appear simple, it represents the first step for younger children as they begin to learn about how, for example, a low camera angle might be used to communicate certain kinds of meaning to the reader. The pedagogy for digital literacies begins in the early years of schooling, and this case study is indicative of what can be achieved with 10-year-old learners.

Case Study 2: Virtual Macbeth

The Virtual Macbeth project was a collaboration between Kerreen Ely-Harper, Kate Richards and the author. Funded jointly by the Australian Council for the Arts and the New Media Consortium, it was a research and development project aiming to focus on how best to leverage the affordances of virtual worlds for educational purposes. The research involved a meta-analysis of existing research across a range of virtual worlds and developing a literary-themed island (based on Shakespeare's *Macbeth*) which employed many of the recommendations that arose from the meta-analysis. This included : developing a global community of learners who could collaborate in responding to Shakespeare's play and jointly produce new versions through role-playing, writing, and multimedia production (such as machinima); using the virtual space to create 3D objects of the more esoteric or metaphorical qualities of the play; immersing students in the "storyworld" by bringing that world to life, and surrounding them with the language of Shakespeare through text, spoken dialogue, imagery, and sound effects, providing the effect of walking into a film set, or participating in a literary theme park adventure; offering students opportunities to change and add to the world through their participation in interactive experiences.

In addition to the meta-analysis, Virtual Macbeth was designed using a range of related and intersecting theories from new media literacies (Gee, 2003; Jenkins, 2006; Buckingham, 2007), drama (Neelands, 2000), digital culture (Silver, 2000; Ito et al., 2009), gaming (Taylor, 2009), multiliteracies (New London Group, 1997; Cope and Kalantzis, 2009a; 2009b); identity (Butler, 1999), communities of practice (Wenger, 1998), and play (Galarneau, 2007). Each element of the

design of Virtual Macbeth was deliberate and carefully planned to allow the maximum level of interactivity, participation and critical reflection about the play.

The main feature on the island is the giant rock/mountain in the middle of the island. This rock has the shape of Macbeth's head. Essentially, students take a journey through Macbeth's "headspace" – his emotional and psychological journey – throughout the trajectory of the play. Learners do not land upon the island to watch the drama unfold; they actually become part of it. Dispersed throughout the virtual island, note cards are used to pose questions and to encourage students to both view and participate fully in the experience. In effect the student or participant becomes Macbeth experiencing his descent into madness. The head lies on its side, symbolising both the beheading of Macbeth and the rise and fall of enlightenment and consciousness.

The journey through Macbeth's head is divided into five central spaces, each reflecting a psychological state – ego, temptation, descent into madness, bloodlust and confusion. A sixth space at the end of the experience provides an opportunity for meta-level reflection and denouement. The psychological states are reflected metaphorically in both in the content of the spaces and the architecture and flow of the experience. Literary techniques such as foreshadowing, drama techniques such as the participant hearing the voices inside Macbeth's head, and digital culture techniques such as playing off the notion of "the uncanny valley", were all employed to heighten the experience and to provide teaching opportunities for students. Students are asked to add to the content and the associated wiki (<http://virtualmacbeth.wikispaces.com>), to make use of the kinds of web 2.0 social networking practices which are now common in online communities.

Although the central space on the island is highly authored (though never complete, as participants continue to add to the build), there are other spaces which act more as studio spaces, where students are able to rework, remix, and retell elements of Macbeth in ways that are both entertaining and critical.

Case Study 3: The remix

Case study three involved multimodal analysis of a sample of ten artefacts known as remixes. A *remix* is the term given to content appropriated from existing stories and re-organised to create new texts. Often the purpose of remixing is humour, parody, or to point out injustices and questionable values. As Jenkins noted:

More and more literacy experts are recognizing that enacting, reciting, and appropriating elements from preexisting stories is a valuable and organic part of the process by which children develop cultural literacy. Parents should instead think about their kids' appropriations as a kind of apprenticeship. They learn by remixing. Indeed, they learn more about the form of expression they remix than if they simply made that expression directly. (Jenkins, 2006, p.177)

This concept is not new, as writers of fan fiction have been doing this for decades. But what does seem to have evolved strongly with YouTube culture is the notion of subversion and using remix for political agendas. Two particular examples which were part of the data set serve well to demonstrate this new activism and political commentary through the textual form.

The first is a remix of scenes from the popular movie franchise, *Twilight*, with the TV series *Buffy*. In *Buffy* we had a strong female protagonist who exemplified the identity of the "girl power"

movement in pop culture and literature that became mainstream in the last decades of the 20th century. For many, the discourses surrounding gender in the newer Twilight saga have seemed a return to traditional notions of femininity and masculinity, with its heroes playing out stereotyped roles of desire and storylines of females being protected or rescued by males. Not content with this, young activist Jonathan McIntosh created a remix which, in his own words, was a form of resistance to those discourses.

In this re-imagined narrative, Edward Cullen from the Twilight Series meets Buffy the Vampire Slayer. It's an example of transformative storytelling serving as a pro-feminist visual critique of Edward's character and generally creepy behavior. Seen through Buffy's eyes, some of the more sexist gender roles and patriarchal Hollywood themes embedded in the Twilight saga are exposed. Ultimately this remix is about more than a decisive showdown between the slayer and the sparkly vampire. It also doubles as a metaphor for the ongoing battle between two opposing visions of gender roles in the 21st century. (McIntosh, 2009, online)

This is one of many instances whereby youth are inserting themselves into the stories of pop culture. Where they are unable to find their place or voice, they recreate the stories in ways that allow them to become the heroes themselves. Such reinventions cause us to stop and reconsider identity, society, culture and the tensions young people face on a day-to-day basis as they are bombarded with images and expectations which serve to alienate them. In a time when teen suicide seems more rampant than ever and gay teens in particular are crying out for understanding, issues of identity and finding one's self represented and valued in society are highly significant. Beyond being interested in the intertextual and multimodal design of the remix as a text, I am fascinated with its potential to be an agent of social change. As Lessig (2009) comments:

There are two goods that remix creates, at least for us, or for our kids, at least now. One is the good of community. The other is education. (Lessig, 2009, pp:76-77)

I would like to add a third good: social change. Remixes are not just quirky, or fun, or a video that might go viral; they also have the power to change perspectives, thoughts and behaviours. This form of social activism is significant in that it breeds a culture of learners who are critical and active citizens in society. The work they create offers hope to other learners who may be struggling with issues of identity, and hope can bring about a change of perception, understanding and belief in a better future: change. This is the kind of critical digital literacy teachers should be aiming for when they are working with students in classroom contexts.

Conclusion: Towards a transformative pedagogy of digital literacies

Based upon these case studies there are a number of key characteristics of digital literacies that emerge with respect to the kinds of textual, discursive and social practices with and around texts. These characteristics are significant and need to be considered carefully to create a meaningful pedagogy for digital literacies.

In terms of textual practices, there is clearly a need for the explicit teaching of multimodality. This became evident in the project outlined in case study 1, in which an understanding arose of the importance of understanding how different semiotic resources work together to form meaning. In case study 1 the focus is on teachers and their classes to include the teaching of a metalanguage of multimodality within their programs. In case study 2, students were able to investigate more sophisticated theoretical aspects of multimodal literacies, for example learning how meaning is also

made at the intersection and texturing of the semiotic resources. Furthermore, the ability to interact directly with the text, to change, shape and remix the text, required students to engage in new kinds of textual practices which required scaffolding and explicit instruction. Case study 3 demonstrates how young people are learning by playing with editing, cutting, and piecing together “mash-ups” of existing texts. These textual practices are meaningful in digital culture, and should be considered within classroom contexts.

In terms of discursive practices, the kinds of meanings produced socially in each of these case studies are still to be understood. In case study 3, the online discursive practices are easy to track – as the remixed videos are posted on YouTube, become viral, and are discussed on various blogs and social networking sites. With regard to what is actually being done socially with the texts that are produced, and how a community is making meaning with these practices or using them beyond the singular instance of text production, we clearly don’t completely understand this yet. One of the interesting aspects emerging from case study 1 was the examination of how well the kinds of explicit teaching of metalanguage we did with children and teachers permeated other areas of the classroom and became an actual “practice” or means of thinking about texts in general. In one class, students began creating retellings or new chapters in the digital fiction piece, *Inanimate Alice* (Pullinger and Joseph, 2005-current). They also began to create multimodal poetry, using some of the lessons they had learnt whilst creating their animations. In one interview, a young 11-year-old boy explained to me that he learnt so much about creating different kinds of shots in his animated work to exemplify different kinds of moods and meanings that he is now collaborating with his filmmaker uncle on a live action short film.

Social practices evident in these three case studies are many and varied, ranging from purposeful play to social activism. In all instances, students or youth were engaged in play – from young children using a sandbox to play with the affordances of Kahootz, to youth who were finding spaces that allowed them opportunities for subversive play, resistance, disruption, crossing boundaries, the insertion of self, parody, satire, dialogue, critique, fantasy and performance of desire. It seems to me that if we are to move towards a meaningful pedagogy of digital literacies, we need to find ways to leverage play and to develop communities of practice which can provide authentic contexts for this play. Such case studies have helped answer the question – ‘In what ways do people manipulate the affordances of existing digital resources in innovative ways that push the boundaries and ‘transform’ those resources?’ Children especially enjoy resisting “rules”, and as Gee explained (2003), they can’t help engaging in practices where pushing the boundaries and exploring limits of a technological system, such as a computer game, are concerned. The sort of innovative creativity of the code-cracking and boundary-pushing mentality is what I believe would be imperative to explore, as far as the use of digital resources is concerned. We want to focus our students on positive and productive ways of transforming existing resources so that they develop the capacities and competencies of innovation with digital resources. We need to investigate what innovations students are already making and what distinguishes innovation from ordinary applicative use of digital resources. In doing so, the aim is to further advance communities’ capacities for innovation, invention and transformation, since it is these capacities for boundary pushing that have come to be so necessary for the advancement of globalised technological growth.

In summary and based on the findings from the three case studies, I would recommend recognizing the following points as supportive of the type of transformative pedagogy which maximizes the potential for innovation, creativity and identity change:

- The explicit teaching of multimodality and a metalanguage for articulating how semiotic resources work together to make meaning
- Teaching in and around an environment that promotes play, recognising that play and experimentation lead to innovation
- Find ways for learners to be active participants and adopt learner responsibility, leadership and autonomy
- Provide learners with opportunities to engage in authentic experiences where they tell stories that matter to them, through multimodal storytelling, remixing, and reimagining identities.

This paper has provided an overview of the thoughts and discussions that have emerged as relevant in the field of digital literacies over the past decade. It has offered educators a new direction for the kinds of decisions they make when considering a pedagogy for digital literacies, proposing significant characteristics of a pedagogy which can be transformative. Engaging learners in such a transformative pedagogy will best equip them to not only become exemplary digital citizens, but also active and participatory world citizens.

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