Digital Literacy within the Victorian Curriculum

By Julia Petrov

There will be significant changes to the workforce and the jobs available in the very near future due to advances in technology (Davies, Fidler, & Gorbis, 2011; Torii & O'Connell, 2017). Our students need the ability to upskill, reskill, be flexible and adaptable for learning and work in a transforming environment (Sukovic, 2014, p. 207). Digital literacy is their ticket to employment, enjoyment and empowerment as it will enable them to effectively access and utilise the participatory web. Given the importance of digital literacy, it is interesting to consider the skills it involves, how it is placed within the Victorian Curriculum, and some of the issues around teaching and measuring these skills

Defining Digital Literacy

Defining a skill set or knowledge base is problematic as there is no consensus on a definition of digital literacy (Bawden & Robinson, 2009; Boechler et al., 2014; Chase & Laufenberg, 2011). While it is possible to produce lists of interrelated components of digital literacy, it is not serviceable to condense it to a "finite number of linear stages" (Bawden, 2008, p. 28). Continually adapting in response to the way we use technology now, digital literacy has moved beyond considering how to simply use computers, to harnessing technology in all areas such as work, recreation, communication and learning as a process to achieve specific goals (Boechler et al., 2014; Briggs, 2014). Digital literacy encompasses information literacy, as well as having an understanding of new forms of information and how to read them. It also involves a growing set of considerations and attitudes relating to creating and communicating in a digital environment (Bawden & Robinson, 2009, p. 28).

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School libraries are already familiar with many digital literacy skills. It's the 'savvyness' that lets people meaningfully and safely participate within a world where technology is becoming ubiquitous (Hague & Payton, 2010, p. 3). But judging the relevance and quality of our choice of, and interaction with, information requires value judgements and a thoughtful approach. Digital literacy encompasses that which is beyond the proficient and practical approach of the information savvy to a more critical and discerning approach of the information wise (Fieldhouse & Nicholas, 2008, p. 49).

While e-Literacy is often used to refer to skills-based computer literacy, in numerous cases it is also used as a synonym for digital literacy (Bawden, 2008). Many aspects of digital literacy are also referred to as 21st century skills known as the 4Cs: creativity, communication, collaboration and critical thinking. Clearly, it is difficult to develop an understanding of digital literacy when the terminology is changeable (Bawden, 2008). A search for 'digital literacy' or '21st Century skills' within the Victorian Curriculum site will not bring any results, although there are several references in VCAA bulletins and on the Victorian Government's Department of Education site. However, these are not clearly defined as they are linked to the capabilities. For example,

> *The Victorian Curriculum design represents the capabilities as sets of knowledge and skills that . . . enable students to develop the values, dispositions and self-efficacy often associated with 21st-century skills* (Victorian Curriculum and Assessment Authority, 2015, p. para. 4).

It could be argued that a lack of explicit detail about digital literacy or, indeed, 21st century skills has led to some confusion for educators. Given these skills are referred to in many different ways in the myriad resources available, it can be confusing and difficult to find clear guidelines providing a sense of how much time a teacher should spend on these skills.

The legacy of the Australian Curriculum may have also compounded the issue given that it has an Information and Communication Technology (ICT) capability as a 'General Capability' whereas the Victorian Curriculum has 'Capabilities' but not an explicit ICT capability. In the Victorian Curriculum it is acknowledged in this way:

ICT as a general capability primarily involves students using digital devices to effectively communicate, collaborate and create resources using digital systems

and we are advised that this capability should be embedded across the curriculum. The explanation for this decision seems reasonable, as embedding the teaching of ICT, like numeracy and literacy, within curriculum areas, is supported by "considerable research" (Victorian Curriculum and Assessment Authority, n.d.). However, the teaching of ICT, in terms of 21st century skills and digital literacy, is not as clearly understood or resourced by school communities compared to literacy and numeracy.

In the Victorian Curriculum, five subjects have ICT general capability skills embedded into their content descriptions but in other curriculum areas, schools can decide how these skills will be implemented (Victorian Curriculum and Assessment Authority, n.d.). This could cause issues, as digital literacy needs to be embedded into all subjects for a more meaningful approach because there is a danger that some skills will be missed if the responsibility is not equally valued and shared (Hague & Payton, 2010). Digital literacy processes and goals also need to be linked to assessment – the essential component to evaluate and improve both teaching and learning. Given the tendency to tailor instruction to the test, assessing digital literacy ensures it is not lost to other priorities (Redecker & Johannessen, 2013, p. 79).

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The Issue of Assessment

Countless education systems across the world have developed policy statements that seek to develop 21st century literacies but in many instances these statements "may bear very little relationship to curricular guidance, practice, and assessment" for school students (Burnett & Merchant, 2015, p. 271). ICT capabilities and digital literacy need to be clearly defined and understood in order to measure these skills. Teachers need to have a clear awareness of these skills and to value them (Starkey, 2011).

Currently our system places a disproportionate value on skills that often do not align with the skills needed for the future workforce. It is easy to test factual knowledge – 'knowledge in the head'; however, assessing digital literacy requires the measurement of less tangible competencies like critical thinking and creativity (Philip & Garcia, 2013, p. 304). According to Starkey (2011), "an evaluation tool for the digital age would combine ideas of knowledge, teaching and learning in a connected world with the use of digital technologies" (p. 24). Arguably, schools are more aware of the benefits of educational informatics and learning analytics – they use adaptive diagnostic testing and act upon the results. But the fluid nature of digital literacy requires assessments to measure a complex range of interconnected skills and competencies in order to ascertain a student's level of proficiency. It would seem that many curriculum-based assessment strategies are challenged when trying to "affiliate antiquated educational objectives and outcomes" with quantifying more "nebulous literacy concepts" (Boechler et al., 2014, p. 9).

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Currently we have a system which prioritises high stakes summative assessments that are narrowly focussed on the testing of traditional knowledge only, with the results linked to ATAR ranks determining students' tertiary entrance opportunities (Earp, 2017; Torii & O'Connell, 2017). Schleicher reminds us why we need to value digital literacy to ensure our senior students are employable with the comment: "Some of the skills that are easiest to teach and easiest to test, are also the kind of skills that are easiest to digitise, automate and outsource" (April 14, 2014). As it is not predominantly linked with formal education, digital literacy is sometimes viewed more as a life skill and consequently not always given the attention it requires (Bawden, 2008).

While there is an awareness that our current assessment paradigm is not effective, there is a lack of pedagogical vision of how to transition to new forms of embedded capability-based assessment (Looney, November 17, 2014; Redecker & Johannessen, 2013). Political courage is required to implement change in our Education departments that manage assessment and the wider community need to understand the necessity for these changes.

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Time needs to be allocated away from traditional teaching to allow teachers to deepen their own skill awareness and acquisition (Earp, 2017). In many instances teachers require support in professional learning to develop their own digital literacy as well becoming familiar with the pedagogy required to teach these skills (Briggs, 2014; Hague & Payton, 2010).

Teacher as Learner – Learner as Teacher

There is much truth in the statement, "Teachers need to adapt to new technology, but quality teaching is the key" (Bruniges, 2012, p. 4). Digital literacy involves more than just teaching the use of technology, it requires an understanding of how to tie its use to progressive pedagogies that enrich modern communication and support the ability to manage knowledge and experience in a digital space (Briggs, 2014; New Media Consortium, December 22, 2016). Many schools are aware of this and may experience difficulties in providing timely, effective professional learning for teachers. In some ways this is due to the "squishiness of digital literacy" as teachers are conscious that it is not "simply reading and writing in a digital environment" (Chase & Laufenberg, 2011, p. 535).

As this form of literacy is evolving, a new set of pedagogical practices is required, and many teachers are also conscious of the need to develop their own digital literacy (Burnett & Merchant, 2015). Sometimes it seems there is a lack of teacher training of these new requirements, as much professional learning focuses on the use of the technology itself. Thus, there is a significant onus on teachers to commit to reflect and renew their practice. Teachers need different professional learning support that accommodates their diverse professional understandings and aspirations, an approach that accepts that the process will be slow and not uniform (Orlando, 2014; Reedy & Goodfellow, 2012). It is easy to say schools need to teach these skills and qualities compared to the more difficult task of "doing it in a deliberate, comprehensive, systematic and demonstrable way" (Earp, 2017). When developing ICT usage policies, school administrators need to address "concrete skills associated with critical thinking and digital literacy" for both staff and students (Nasah, DaCosta, Kinsell, & Seok, 2010, p. 553).

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Conclusion

By developing their digital literacy skills, teachers and students will be better placed to make sense of the new of digital learning and working environments that are in a state of constant flux (Conole, 2012, p. 55). School libraries are well placed to support schools to ensure our curriculum offers significant opportunities to build digital literacy to prepare students for the ever-changing landscape and experiences that technology provides. Champions of information literacy, school libraries have always been aware of the need to develop search and evaluations skills with our students as well as supporting ethical use of information. We are well placed to develop a shared professional language to discuss and measure digital literacy.

Briggs (2014) makes the pertinent comment that teachers need a "practical and applicable guide to helping students think productively about the digital world" (para. 4). The concept of digital nomads has altered over time and the ability to use technology effectively is no longer considered to be related to one's age but rather one's mindset, motivation and context (Boechler, Dragon, & Wasniewski, 2014; Kuehn, 2012; White & Le Cornu, 2011).

School libraries epitomise the qualities of true digital nomads as we have transitioned our collections and library presence into the digital world. We have always played an important role in supporting professional development and should position ourselves to assist schools with relevant resources and professional knowledge to develop student and staff proficiency in digital literacy (Cronin, 2010). As Valenza (August 11, 2011) says, "There has been no better, no more exciting, no more important time to be a librarian". Our schools need us to help define and provide direction for digital literacy education.

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