Guest Editorial Preface

Special Issue On: Understanding digital literacies in resource-constrained contexts

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This special issue arose out of our experiences as educational technologists in resource constrained contexts. The concept of resource constrained is multi-faceted. Traditionally it has been viewed in terms of the digital divide and the foundational access needed to use technology for learning and teaching purposes (IGI Global, 2022) . However, one can also view resources constrained in terms of labor and time. Demands on educators, academic developers and students time has increased with the use of technology for learning (Allmer, 2019). The term resource-constrained, however, as well as the above views, point to a deficit model where the *lack of* is the challenge and both academics and students learn to *make do*. The term also glosses over contextual differences and complex social, cultural and political issues which may have an impact on how different resource constraints are experienced Baskaran & Mehta, 2016). The authors in this special issue seek to go beyond this deficit model and call on us to consider how academics, students and adult learners embrace these constraints using a strengths-based approach.

Our collaboration began before the pandemic. However the recent global context of emergency remote teaching and learning has foregrounded further issues in relation to digital literacies and exacerbated these demands (Li & Yu, 2022). In education globally there has been an exponential growth in the use of various technologies, particularly for teaching and learning (Palvia et al 2018). This growth has been fueled by the marketisation of higher education and the need to compete on a global scale (Morris et. al. 2020). The potential of technology-enabled learning to change the structure and process of learning and the desire to equip students with life-long learning skills in order to prepare them for an ever-changing knowledge economy have been noted (Lock et al 2021). While these lofty ideals may have been the driver for innovation and increased access to technology and information in education, there is now a growing realisation of the complexity and contradictions of digitally mediated education in achieving these aims (Enyon & Malmberg, 2021; Swartz, et.al 2019).

Disruption to learning is not a new experience. In South Africa, for example, student protests across university campuses resulted in closures of campuses and increased reliance on technology as a means of continuing learning and teaching (Czerniewicz, Trotter, & Haupt, 2019). The pandemic has, of course, seen this occur at a global scale and even with national “lockdowns” in decline, the hybrid world of work and learning relies on technology to connect us between the virtual and physical in ways it hasn’t done before (Oliveira et al 2021).

With technology becoming more pervasive, our understanding of digital literacies is shifting from those who “have” or “have not” to those who “can” and “can-not” (MacIntyre 2014, Dolan

2016). Digital divide research has moved beyond what is termed first level divides (access) to second- (skills and uses) and third- (outcomes) level digital divides (Schreeder, van Deusen et al 2017). Conceptualisations of digital literacies has moved beyond access and skills towards "knowledge of how to effectively use digital technologies for valued social, economic and political practices." (McIntyre 2014: 92). Disparities are likely to increase between those who are able and unable to find, analyse and critically evaluate and apply information and media content for learning needs (Mavridi, 2020).

In this special issue (SI), the authors focus on what we can learn from research questions being posed in these contexts, the way digital literacies is being defined and theorized and the practices which are emerging.

All of the authors affirm the importance of contextual understanding. They demonstrate that the practices associated with digital literacies are not "fixed," nor do they occur in isolation; rather, they evolve in relation to the social, cultural, economic and political changes of a given context.

Two of the papers explore youth voices and experiences outside of the formal education setting, one in rural and urban Nigeria (Uzuegbunam) and the other in peri-urban South Africa (Adam). The others offer insights within tertiary education in South Africa with two adopting a student focus (Mayisela; Noble & Gachago), two offering educators perspectives (Ngcobo; Pallitt & Kramm) and the other proposing an alternative pedagogical approach (Khoza & Tshuma).

All draw creatively on what's "in the hand of the participant." Whether this is free, off the shelf software or cloud-based tools, accessible technology, such as mobile phones or shared devices. Khoza & Tshuma go further so as to propose analogue solutions for teaching about digital literacies, an approach of necessity in a context where adequate resources are lacking.

The range of theoretical frameworks drawn on includes those that have been previously used in understanding digital literacy eg multi-literacies (Khoza & Tshuma), new literacies studies (Mayisela) and socio material perspectives (Pallitt & Kramm). However the authors have also moved beyond the traditional to include critical race theory (Noble & Gachago), social realism (Ngcobo), knowledge gap theory (Adam) and domestication theory (Uzuegbunam). This diversity of lens provides a range of insights ….

The authors in this SI draw on a range of research approaches to interrogate the problem space. Whether it is narratives (Mayisela; Pallitt & Kramm) or digital story's (Nobel & Gachago), group conversation (Uzuegbunam), surveys (Adam) or interviews (Ngcobo), the voices of the youth and those who teach them are foregrounded. These reflect the experiences of people who care about teaching and learning.

The papers show that digital literacies can develop organically through peer and self-learning (Uzuegbunam), are more meaningful when scaffolded within an authentic context (Adam, Mayisela, Noble & Gachago, Khoza & Tshuma) and are complex and tied up with structure and culture (Ngcobo) and personal emotions (Pallitt & Kramm). As Mayisela shows, digital literacies needed for learning within subject areas differ and students face challenges adapting to, and transferring their knowledge and competencies into new contexts.

However digital inequalities persist and need to be continually assessed. Uzuegbunam notes that personal development and self-learning is gendered and classed. The context of the digital divide and disconnection changes as technology gets better and faster. There is never enough access, just gradations of it. This inequality of access makes it challenging for educators as they grapple not just with their own development and understanding but need to be cognisant of the inequalities experienced by their students. Inequality between student and teacher was exacerbated during the pandemic (Pallitt & Kramm). Inequalities in prior experiences exist with transitions across learning contexts eg in the informal sector (Adam) as first in the family to participate in higher education (Mayisela) and in terms of background, the personal history and environment you live in (Noble & Gachago).

What do the papers demonstrate in terms of possibilities for developing digital literacies for the future?

Digital literacies are dynamic and always developing eg there is a difference between

- personal use and that needed for learning/ (Mayisela), teaching (Pallitt & Kramm).
- between subjects / disciplines within educational contexts (Mayisela)
- what the institution requires and what you need in order to be able to be successful ie educators require digital literacies beyond the LMS (Ngcobo; Khoza & Tshuma)

Digital literacies can be developed through authentic practices. That is they don't necessarily have be taught but can be learnt when

- connected with purpose eg employment, careers (Adam)
- a valued part of life and learning (Uzuegbunam)
- Integrated with relevant activities (Mayisela; Khoza, & Tshuma)

Digital literacies are seldom an individual practice. Learning is social and learning with others gave youth confidence (Adam), was a valued disciplinary attribute (Mayisela), a coping mechanism (Uzuegbunam; Pallitt & Kramm), a response to lack of adequate access (Khoza & Tshuma) a catalyst for connection and creativity (Khoza & Tshuma, Noble & Gachago), and a catalyst for change (Ngcobo).

These papers provide examples of the complexity and importance of a range of digital literacies from basic functional capacities like email accounts (Adam) to digital citizenship (Noble & Gachago). They show evidence

- of the development of multimodal literacies through digital storytelling (Noble & Gachago) and combining analog and digital approaches (Khoza & Tshuma).
- how a critical lens can be applied to dealing with information online (Adam)
- the importance of acknowledging the capacity and capability of youth (Uzuegbunam)
- the agency and value of emotions and care amongst educators (Paliitt & Kramm).

Critical and creative literacies are increasingly important for post-secondary success. And educators are themselves operating in multiple levels of resource constraints. Whilst they may have adequate access, they are acutely aware of the diversity of students' experiences. They are also constrained in terms of personal resources. Time to do what they think is best and energy to navigate the complexity of requirements of blended and online learning is another resource constraint (Pallitt & Kramm).

The papers in this SI demonstrate the many innovative ways of viewing digital literacies which are emanating from the Global South (in particular resource-constrained contexts). Through foregrounding agency and strengths, they offer constructive ways forward. This disrupts the discourse of the digital as needing to be new, better, or advanced instead focusing on developing literacies with what is available and realistic drawing on approaches to digital education that are creative, humanistic and contextually relevant.

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