

**MOBTS Oceania Conference Jan 30 – Feb 1, 2024**

**Submission for Session Format – Roundtable**

**Session Title:** Cultivating a Digital Mindset through the Acquisition of Digital Skill Sets and Collegial Engagement

**Abstract**

Rapid digital transformation requires educators to cultivate a digital mindset and digital skills, not just to drive change but also to maintain currency and thrive in a digital landscape. Equipped with digital capabilities, educators can effectively improve teaching methodologies and promote digital literacy as they prepare the future workforce. A research project with Queensland educators highlights the urgency for developing digital skill sets and confidence in using technologies to enhance learning. It also emphasises the importance of fostering the attributes of a digital mindset and collegial engagement. In a swiftly evolving digital landscape, these attributes are essential for educators to remain adaptable and contemporary.

**Key Words:** Digital mindset, Digital skills, Collegial engagement

## Introduction

In an era characterised by the rapid and pervasive integration of digital technologies, into virtually every facet of modern life, education has emerged as a focal point for digital transformation (Hanelt et al., 2021). The widespread impact of digital tools has been exponential in all educational levels, especially as the COVID-10 pandemic forced teaching and learning online which entailed a digital transformation of staff and organisations beyond what was expected (Bonfield et al., 2020). The post-pandemic challenges coupled with the dynamic nature of contemporary workplaces has necessitated a paradigm shift in educational practices with the digital capabilities of the educator taking a lead role (Núñez-Canal et al., 2022). Educators are no longer just purveyors of knowledge but also facilitators of digital literacy and technology adaptability among their students. The evolution of the Digital Competence of Educators (DigCompEdu) framework (Redecker 2017) provides a common language and logic to guide policy and describe educator-specific digital competencies in order to be able to seize the potential of digital technologies for enhancing and innovating education. As such, this roundtable discussion aims to consider the paramount importance of equipping educators with robust digital capabilities, developing a digital mindset and addressing the importance of collegial engagement. These capabilities and collaboration are vital for educators personal and professional growth and indispensable for effectively preparing the next generation to thrive in an increasingly digital and technology-driven world.

Implementing positive change in the education workforce will not only contribute to institutional advancement but also build collegial engagement which creates vibrant, collaborative and an intellectually stimulating academic environment. Establishing mentorship networks may also boost recruitment and retention to cover the natural attrition that is contributing to the global concern of staff shortages. Workforce loss sustained during

the COVID-19 pandemic (Heffernan et al., 2022) and retirement exasperates the need to ensure the supply of educators is sustainable and proficient to teach in a digitally enabled environment. A sustainable workforce is one that is both future focused and prioritises growth. The Australian Computer Society (ACS, 2022) ICT Educators Committee published a report containing fifty-five recommendations. Of the few recommendations defined as critical is the need to develop appropriate and systematic professional learning support programs to upskill all educators to have sufficient experience with the use of digital technologies in their teaching practice. The ACS also recommended a national project to benchmark and extend Initial Teacher Education programs in their development of digital literacy, educational technologies, digital technologies and thinking skills to ensure an ongoing pipeline of digitally capable educators.

A further outcome of this in-depth roundtable discussion is to offer insights into how developing a digital mindset can encourage innovation, enrich teaching methodologies, and illuminate the path towards a more digitally proficient and adaptable educator cadre that ensures education's relevance in a digital age. A continuum of two primary mindsets: fixed and growth, as proposed by Dweck (2016), has had significant implications for education by highlighting the importance of fostering a growth mindset among students and educators. Dweck's research emphasises that by promoting a belief in the malleability of intelligence and skills, educators can empower learners to embrace challenges, persist through difficulties, and ultimately achieve higher levels of academic and personal success. This dual mindset continuum is highly relevant in a digitally enabled system as it promotes adaptability, resilience, and a positive attitude towards learning and innovation, all of which are essential in navigating the evolving landscape of digital education. Therefore, to thrive in an environment where digital skills and technology integration are increasingly integral to the education experience, understanding the attributes of a digital mindset and developing

strategies for this to be developed is the logical next step to promoting a growth-oriented learning environment.

### **Theoretical Foundation**

An unprecedented digital transformation, affecting all aspects of society including the workforce, is occurring at a rapid pace. Digital transformation is characterised by the fusion of advanced technologies and the integration of physical and digital systems (Almeida et al., 2020). This digital era encompasses the notion of ‘*harmonious human-machine interaction*’ (Noble et al., 2022) with technological advancements making digital skill sets a fundamental requirement for success. Consequently, it is vital that educators develop digital skill sets, to adequately prepare students for the digital age of work, as a lack of digital competency is often one of the barriers to technology integration in education (Dogan & Celik, 2020). Educators have a pivotal role in bridging traditional and digital learning by instilling critical thinking, problem-solving abilities, and adaptability in their students.

Teaching real-world inquiry is more likely to positively impact student interest and motivation to learn (Murphy et al., 2018). Similarly, the added value of using digital tools from a pedagogical perspective increases motivation and effectiveness (Amhag et al., 2019). Therefore, educators must be responsible for preparing students to navigate digital tools, platforms, and information sources effectively. The European Digital Competence of Educators Framework explains what it means to be “digitally competent” as it is considered as a key life skill in today’s society (Redecker 2017; Zhao et al., 2021). Digital literacy skills are also considered as a core competency that encompass the integration of computer literacy, information literacy and media literacy. Being digitally competent and digitally literate have become transferable skills as workplaces continue to evolve due to technological

advancements such as automation, artificial intelligence, big data, and the Internet of Things is paramount as they are all reshaping industries and job roles.

In the emerging digital age, the concept of a digital mindset underpins a transformative shift in fostering innovation and creativity. A digital mindset encompasses an orientation towards embracing technological tools, exploring novel solutions, and adapting to rapidly evolving digital environments. It encourages individuals to view challenges as opportunities for innovative problem-solving while promoting a culture of experimentation and continuous learning. This mindset transcends traditional boundaries and hierarchies, emphasising collaboration and the sharing of diverse perspectives. As individuals engage with digital technologies that facilitate easy access to information, collaborative platforms, and interactive media, they are empowered to think creatively, connect disparate ideas, and experiment with unconventional approaches. This willingness to learn, apply, and teach new concepts is proposed by Bower and Konwerski (2017) as a '*mindset for career curiosity*'. Developing a digital mindset actively seeks to disrupt conventional norms and encourages the exploration of new horizons in an ever-expanding digital landscape.

While the necessity of digital skills development for educators is clear, several challenges hinder its implementation. Firstly, not all educators have equal access to technology and training resources, so addressing this digital divide is crucial to ensuring equitable digital skills development. Technology innovation is described by Brynjolfsson and McAfee (2016) as a '*second machine age*' radically shaping our world and posing a real potential for people to be left behind. In addition, some educators may be resistant to adopting new technologies and teaching methods, which means effective professional development programs and support systems need to be provided. Time constraints become another factor to consider due to existing curriculum demands meaning incorporating digital skills development can be challenging in an already packed schedule.

Addressing the challenges educators face to provide quality education and develop digital skills, especially during and after the COVID-19 pandemic, requires a multi-faceted approach. This means educators need to '*re-envision and re-design future curriculum*' by providing a sense of '*normalcy, purpose and security*' as described in the model proposed by Neuwirth et al., (2020). It can no longer be assumed that digital skills are learned through osmosis. Comprehensive training programs need to be implemented to cater to educators at all digital skill levels. These programs should cover basic digital literacy, advanced digital tools and innovative teaching methods using a range of devices and digital platforms. Ensuring all educators have access to the necessary hardware, software, and digital resources required to deliver all learning areas of the curriculum, needs to be a priority, and may involve developing partnerships with industry as well as creating new government initiatives as institutions cannot be expected to make all of these provisions within existing budgets. Models of collegial engagement could be established through mentorship programs and support systems where experienced educators can guide their peers in digital skill acquisition. This would also enhance how educators integrate digital skills development into the curriculum and provide clear guidelines on how to incorporate digital tools and resources into their practice.

In a recent study of Queensland educators, who are all members of the Moreton Bay Technology Alliance (MBTA), it is evident that digital disruption has already changed the landscape of work and learning forever. The COVID-19 pandemic was a catalyst for reshaping traditional paradigms (Zancajo et al., 2022) as digital technologies emerged as the keystone of resilience. During the research project, educators were surveyed to ascertain their self-reported digital skills in comparison to performance-based evidence. It was apparent from the results that there are few reliable resources to assess digital competency and even less rigour in the requirement or prioritisation to develop digital skill sets. Following the

survey, respondents were invited to be interviewed to gain further insight into their perception of digital skill acquisition and the impact of developing a digital mindset. This Ph.D. research project is currently in the final stage of publication with the University of the Sunshine Coast.

### Session Description

The 60-minute roundtable format aims to provide a platform for educators and policymakers to engage in a meaningful conversation about the impact of collegial engagement in the acquisition of digital skills and development of a digital mindset. During this time, I will showcase the Moreton Bay Technology Alliance (MBTA) model that is designed to build collegial engagement and used to foster the development of educator digital skill sets. I will also share a brief overview of my Ph.D. research project, investigating the attributes of a digital mindset, and provide some actionable insights and strategies for preparing educators to excel in the digital age thus ensuring the best possible contemporary education environment for all students.

<b>Duration</b>	<b>Focus</b>
10 Minutes	Introduce the collegial approach taken by the Moreton Bay Technology Alliance (MBTA) to support Queensland educator's to develop digital capabilities. Share the findings of a Ph.D. research project being conducted at the University of the Sunshine Coast investigating the impact of mindset on the acquisition of digital skills

15 Minutes	Participants break into 4 groups, each with a question to illicit discussion and develop some actions or strategies that could be implemented at each level of engagement
10 Minutes	Poster walk - Each group to share the points of action relevant to the question they discussed
5 Minutes	Whole group discussion to develop a working definition of digital mindset and identify some ways this could be developed
5 Minutes	Digital Mindset Attribute Model – The Facilitator will present the working model developed from Ph.D. research findings
15 Minutes	Quick fire activity - Develop a list of activities that could be actioned at own institute to build digital capabilities/mindset

**Questions for Roundtable discussion** – participants can be assigned or self-select a group according to their current role, area of interest, or expertise.

1. **Institute** – How are digital skill sets developed and digital capabilities demonstrated among educators at your institute and what is the impact on student learning outcomes?

*This question seeks to examine the direct and indirect effects of educators' digital proficiency on quality education, student engagement, and overall academic success.*

2. **Region** – What challenges and barriers do educators face when trying to build digital skill sets considering if digital capabilities have remained the same over time and how can the challenges and barriers be overcome?



*This question invites discussion on the obstacles educators encounter in their digital skill development journey, such as willingness to learn, resource limitations, resistance to change, training opportunities and strategies to address them.*

**3. National** – In what ways can educational institutions and policymakers support the acquisition of digital skill sets and what measures could be used to ascertain the digital capabilities of educators?

*This question explores the role of institutions and policymakers in facilitating professional development, providing resources, and creating an environment conducive to educators' digital skill enhancement.*

**4. Partnerships** – Why are digital skill sets, the development of a digital mindset and collegial engagement increasingly crucial for educators working in a contemporary workplace?

*This question delves into the broader context of digital transformation and the specific reasons why educators need to acquire and master digital skills to remain effective.*

In conclusion, the digital age of work necessitates that educators develop digital skill sets empowering them to prepare students for the workforce of the future. Educators play a pivotal role in this transition, acting as guides and mentors in the digital realm. This roundtable discussion will encourage participants to think beyond digital skills and consider the need for developing their own and others digital mindset. Participants will learn how the MBTA model has successfully built collegial engagement and could be replicated in their

own institute. As the roundtable discussion questions are aimed to engage all levels of the education sector, the shared points of action can easily translate into changes in practice and policy for education, not just in Australia but any country in Oceania and beyond.

While the context of the research examples shared during this roundtable discussion have primarily focused on Queensland educators, investment in educators' digital literacy and digital skill proficiency applies to all educators to ensure long-term success and competitiveness in a digital global economy. To embrace the full extent of building digital capabilities, to create positive change, will also require learning how to develop a digital mindset to enhance not only educators' professional practice but also students' preparation for future careers.

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