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Navigating the future of professional learning: Digital microcredentials in the Australian context

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Microcredentials have gained immense popularity in higher education institutions for their flexible and timely approach to learning. However, their true value, impact, and recognition within Australia remain largely unexplored. This paper dives into the persistent issues surrounding microcredentials in the Australian context and explores prospective avenues for their future evolution. These insights have the potential to shape the future of microcredentials by informing integration and recognition decisions, benefiting educational institutions, industry employers, and professionals alike. Moreover, this paper discusses the possibilities for further university-industry partnerships, innovative educational offerings, revenue streams, and the development of digital pedagogical curricula and assessment designs. It emphasises the importance of providing diverse options for industry employers and professional learners in their pursuit of lifelong learning and career advancement. This paper aims to shed light on these pressing issues and pave the way for a transformative future of microcredentials in Australian higher education.

Keywords: Short courses, microcredentials, professional learners, online learning, learning design

Introduction

Before COVID-19, higher education worldwide faced notable challenges, such as provision, funding, and relevance. Factors like shifting student demographics and intensified competition, as evidenced in Australia's Bradley Report (DEEWR, 2008), contributed to these challenges. The pandemic further complicated these issues while prompting universities to act faster in response. The responses saw a surge in flexible learning, with more institutions shifting to hybrid or entirely online formats. An interesting development was the introduction of short forms of learning, including microcredentials. However, there is considerable disputation around what is meant by this term, and how it fits within the higher education system.

Defining the term

Microcredentials offered by universities provide a certified credential upon completion, distinguishing them from professional development programs that only offer a certificate of participation. While there is no universally accepted definition, microcredentials are generally characterised as smaller learning units focused on specific skills or knowledge relevant to industries or workplaces. The Australian National Microcredentials Framework (NMF) defines micro credentials as ‘a certification of assessed learning or competency, with a minimum volume of learning of one hour and less than an AQF award qualification, that is additional, alternate, complementary to or a component part of an AQF award qualification.’ (DESE, 2021). The Australian Government recently launched the NMF to help provide a baseline standard for microcredentials (DESE, 2021). The NMF defines microcredentials for a shared understanding, sets guiding principles for their development and implementation, details requisite information for transparency, and establishes a minimum quality standard. The Australian Government, through the introduction of the NMF, is seeking to bolster the legitimacy and worth of microcredentials, promoting their acceptance and use in education and employment sectors. While they have recently released guidelines to oversee microcredentials, alternative definitions persist outside of the tertiary education providers' adherence (Oliver, 2019; Miller & Jorre de St Jorre, 2022). Microcredentials, require different design decisions to be made in comparison to the traditional award courses offered at universities if they are to provide satisfactory student learning experiences. The courses themselves cannot assume previous knowledge of the learners that’s been gained through previous study, or even institutional knowledge, from previous subjects. In addition, the shorter nature means that there is less time to engage in feedback and formative development, and there is also the challenge of navigating how resources, such as access to the university library, might be negotiated for short course participants, who are not university students (rather, they are participants or learners on a short course). Furthermore, it's important to recognise that students enrolled in microcredentials at institutions like TAFE, which have been offering short forms of learning for a while, often have diverse motivations compared to traditional students pursuing award courses. Universities can learn from TAFE's expertise in offering practical, industry-relevant content, flexibility, collaboration with industries, and effective marketing to adapt their own short course offerings and better meet evolving educational and workforce demands. These constraints spark opportunities for academics and learning design teams to innovate not only in the design

of these short forms of learning, but also within the broader university ecosystem. The emergence of microcredentials, paired with the concept of microlearning or “bite-sized teaching” (Manning et al., 2021), a strategy that is not new but is recently named, provides valuable insights into possible effective solutions. Despite the unique challenges in designing these courses, such as catering to diverse learner backgrounds and managing reduced feedback due to time limitations, these innovations offer new pathways in the university system.

Challenges of microcredentials

University leaders in a recent international survey reported industry-wide microcredential standards were absent, and quality assurance and trust as significant obstacles to microcredential implementation (Holon IQ, 2021). While there has been a significant increase in the number of institutions globally considering their adoption as 'mature,' the majority (64%) still perceive it as an emerging trend (Holon IQ, 2023). In Australia, the microcredential landscape has been, until very recently, unregulated with varying adoption levels across 88% of Australasian universities (Selvaratnam & Sankey, 2021). Some universities are hesitant to invest the time and resources into a qualification that may not be recognised in the future or where the income stream is not yet established. However, the ongoing popularity of social learning platforms such as LinkedIn Learning, FutureLearn and Coursera, all of which offer some form of certification for completion of their courses (and which are sometimes branded as microcredentials) means there will be ongoing and continued interest in microcredentials. If this is the case, higher education needs to address the following concerns.

Quality assurance

Miller & Jorre de St Jorre (2022) uncovered parallel sentiments, indicating that although there was substantial support and enthusiasm for microcredentials and their broad application amongst industry, employers sought more clarity on their utilisation. More importantly, they needed confidence in the applied standards' rigor, signifying an essential need for quality assurance in this educational realm. The notion of quality assurance becomes even more vital when considering the identified deficiencies in the current credential system, as discussed by Boud & Jorre de St Jorre (2021). This is tied into a wider concern from universities; that the burgeoning marketplace for microcredentials will either devalue other university courses or remove the need for universities entirely (Mahamuni & Goteti, 2023). Others have suggested that microcredentials are nothing more than ‘gig’ qualifications for the ‘gig’ economy (Wheelahan & Moodie, 2022). TEQSA (2017) stressed the significance of robust quality assurance systems with their assertion, ‘Effective quality assurance systems help a provider to validate any claims it may make about the quality and standing of its educational offerings.’ This sentiment underscores the role of these systems in bolstering trust among employers and learners alike in emerging educational forms like microcredentials. By ensuring the high standards and validity of these offerings, quality assurance mechanisms can effectively address employers' concerns and contribute to the broader acceptance and utilisation of microcredentials.

Complexities of the digital era

Designing quality assessment for and of learning are complex challenges facing the digital world and universities. Bearman et al. (2023) propose the development of a framework for designing digital assessments augmented across three purposes – digital tools, digital literacies, and human capabilities. Notably, extensive research has demonstrated the effectiveness of using video for delivering feedback (Mahoney et al., 2019), while the field of learning analytics has shown a growing interest in leveraging feedback to enhance assessment practices (Shibani et al., 2020). Additionally, aligning assessment design with work-based learning needs highlights the significance of creating authentic and complex assessments (Ajjawi, et al., 2020). These findings contribute to the body of knowledge supporting the implementation of high-quality assessment strategies in the digital learning environment.

Integration of microcredentials offerings within existing structures

The integration of microcredentials within the traditional education structure has spurred several discussions, particularly surrounding their specific skill-focus and the role of industry in their development. Moreover, there's the complex issue of how microcredentials fit within existing qualification structures, such as the Australian Qualifications Framework (AQF) in Australia. This raises questions regarding credit recognition and transferability: Does a microcredential contribute towards a degree program? If so, in what capacity? And should the need arise, how can these microcredentials be transferred between educational institutions? These questions underscore the need for a systematic approach to the recognition and transfer of microcredentials, ensuring they serve as valuable, credible elements of the broader education landscape. They also highlight the necessity for collaboration between educational institutions and industry in designing these programs, ensuring they balance specific skills training with the broader objectives of university education.

Design considerations of microcredentials

In addition to the wider questions about the place of microcredentials within the university sector ecosystem as described above, there are also questions about how microcredentials are best designed. As Ehlers (2018) notes, microcredentials are a significant departure from traditional subject offerings and structures: this necessitates a different selection of design priorities. Some of the complexities involved in this discussion include both the modality of the course and the shortened time frame. Microcredentials are usually much shorter than a traditional subject, which means there is less opportunity to develop a rapport, or to provide feedback. Alternative pathways and tools will need to be developed and implemented to do this. Furthermore, micorcrednetials are increasingly being offered online, and even in entirely asynchronous modalities. The challenges faced by MOOCs (Terras & Ramsay, 2015) have highlighted the difficulties in such approaches; this is something that microcredential design will have to overcome too. One area that might provide insight into this design is the burgeoning research interest in microlearning (Hug, 2007). Corbeil et al (2021) set out a framework for the design of shorter learning experiences that provides guidance to learning designers.

Revenue generation or genuine learning?

Some academics are worried universities are adopting micro credentials in their institution to boost revenue. Further, there are claims that such short courses do not improve employees' work conditions and emphasise "learning to earn" instead of "learning to learn" (Ralston, 2021). Whether micro credentials can set out to improve education for all can be anyone's guess. Microcredentials can respond in a much more agile fashion to these changes; indeed, universities recognised the threat from third party providers regarding alternate forms of training and have moved into short forms of learning, including microcredentials, as a result. Universities, however, have a distinct advantage in that their status lends weight to the microcredential (Ehlers, 2018). Having said that, the question of microcredential effectiveness, either in terms of learning or in meeting the needs of employers, is very much under researched (Gibson et al., 2015). Microcredentials have been suggested to offer benefits such as increased transparency of accomplishments, motivation for further study, flexibility in personalising learning pathways, and engagement with professional communities (Oliver, 2019). However, these assertions remain untested.

Discussion: Shaping next steps for microcredentials

Microcredentials can benefit universities by forging new industry ties, generating revenue, and providing innovative educational options. For employers, microcredentials, sometimes more esteemed than a degree, enable professionals to promptly and flexibly upgrade or acquire new skills. Opportunities for microcredentials in Australia include refining design aspects, enriching learner experiences, gauging their impact, acknowledging industry professionals, and fostering knowledge collaboration. However, there remain both practical and theoretical concerns that universities need to consider in the ongoing development process. Some suggestions for these considerations are presented below.

Improve design considerations and quality processes of digital and online microcredentials

Improving the design considerations and quality processes of digital and online microcredentials is a critical step in ensuring their effectiveness and relevance. It involves thoughtfully crafting the curricula with the learner in mind, considering elements such as usability, accessibility, and inclusivity. It's important to ensure that the content is engaging, meaningful, and tailored to the specific learning outcomes that the microcredential is intended to address. Furthermore, a well-designed course should also consider the ways in which learners interact with the platform, making navigation and resource location intuitive. Beyond design, the quality process is another pivotal aspect of creating valuable microcredentials. This process includes rigorous evaluation of course material, feedback systems to continuously adapt and improve course content, and robust assessment mechanisms that truly gauge learners' understanding and skill acquisition. Additionally, setting a high bar for quality ensures that the microcredentials hold value in the eyes of employers and education providers alike, thereby enhancing their recognisability and utility in the professional landscape.

A potential opportunity to elevate the quality and effectiveness of microcredentials provided by Australian educational providers, is to adopt sustainable design considerations. These considerations should encompass enhancements in curricula, assessment design, learner support mechanisms, digital learning platforms, and pedagogical approaches. For example, standardising the methods of assessment, recognition mechanisms, and transparency could help to ensure comparability, credibility, and transferability across various institutions and industries, which is of importance in an era demanding greater transparency (Boud, 2017).

Improve industry learner professional experience of *digital and online microcredentials*

Improving the learner experience in the realm of digital and online microcredentials represents significant avenue

for potential research and development. Such efforts should incorporate an informed approach to curriculum design, highlighting the importance of usability, accessibility, and inclusivity to meet diverse learner needs. The primary goal is to ensure that course content is not only engaging and meaningful but is also tailored to the specific learning outcomes targeted by the microcredential. Furthermore, thoughtful digital online learning and user interface design are essential, with a focus on intuitive navigation and easy resource access, to provide a positive user experience. Further, identifying the value and positive and negative impact of completing a digital and online microcredential will help with decision-making considerations of prospective industry learner professionals aligned to their personal and career goals is needed when enrolling in a digital and online microcredential. Spotlighting the learners and give education providers and employers insights into the learner's value and impact of completing microcredentials and whether it has made any lasting impact.

Better understanding of any positive and negative impact of digital and online micro-credentials
Further understanding of the positive and negative impact on industry learner professionals will lead to increased success in their learning and desired outcomes. For example, a better understanding will lead to higher satisfaction, engagement and retention rates. This, in turn, will translate to greater opportunities and prospects for work, education, citizenship and social connection for all. In addition, industry learner professionals will be able to access the digital and online microcredential in their own time regardless of place, pace or mode of study, ensuring equitable access and an equitable experience for all. Further, helping to inform industry employers' workforce training and upskilling decisions when considering microcredentials as part of employee professional development.

Recognition of industry learner professionals as a distinct TEL learner cohort across higher educational institutions
Opportunity to create behavioural change across Australian university providers by proactively recognising digital and online micro credential industry learner professionals as a distinct student cohort with specific digital and professional learning needs. This would warrant a tailored approach to learning design and learner support and ensure this learner cohort's retention, engagement and success, translating to greater opportunities and prospects for work, education, citizenship, and social connection.

Improve collaborative TEL institutional knowledge sharing
As a potential to improve collaborative Technology-Enhanced Learning (TEL) institutional partnerships and knowledge sharing, the establishment of a community of practice is crucial. This community should involve a collective effort from higher education providers and practitioners, including course teaching teams, academic developers, and professional educational designers across Australian institutions. Their shared objective should be to bolster the outcomes for designing digital and online microcredentials. Consequently, this will result in the creation of a unique and robust community of practices focused on digital pedagogies relating to microcredentials. This network of microcredential practitioners and like-minded groups will provide a platform for collaboration, interaction, and pooling of resources. Working in partnership, they can efficiently exchange information and knowledge, foster professional development, and address any arising challenges in tandem. By prioritising these emerging ‘next steps’ opportunities, Australia possesses the capability to capitalise the advantages of microcredentials, leading to enhancements in their design, recognition, and comprehensive influence. Such possibilities lay the groundwork for in-depth research and strategic action, with a particular focus on the value and impact of microcredentials on industry professional learners. This is aimed at moulding the future course of microcredentials within the Australian landscape. Consequently, this can spur innovation, encourage lifelong learning, foster industry-academia collaborative partnerships and aid in the professional development and career advancement for professionals across multiple sectors.

Conclusion

Microcredentials have gained popularity in higher education institution for their flexible and timely approach to learning, yet their true value, impact, and recognition within Australian universities remain largely unexplored. This paper delves into the persisting issues that are inherent in the realm of microcredentials within the Australian context and contemplates the prospective avenues for the future evolution of microcredentials in Australia. Further research is needed to shed light on the value and impact of microcredentials for industry learner professionals. Such insights can shape the future of microcredentials by informing integration and recognition decisions, while also providing valuable implications for diverse stakeholders, including educational institutions, industry employers, and professionals. Additionally, the potential for further research can pave the way to unveil opportunities that could reshape the future of microcredentials. These could include the formation of novel university-industry partnerships, the development of innovative educational offerings and revenue streams, the creation of digital pedagogical curricula and assessment designs, and the provision of further options for industry

employers and professional learners in their pursuit of lifelong learning and career advancement. As we explore microcredentials within Australian universities, we must ask ourselves: Are we fully harnessing their potential, or are we merely scratching the surface?

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