



Micro-credentials: A Postdigital Counternarrative

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Abstract

Alternative credentials, such as micro credentials and digital badges, are increasingly being developed in universities. Primarily aimed at employability, these credentials are being scrutinised as it is argued that they are surrounded by ‘great uncertainty’. We contribute to this scrutiny by examining the forms of subjectivity that result from micro-credentials. We argue that, in their current form, they tend to result in a neoliberal subject. Presented is a counter-narrative that examines the current state of micro-credentials and offers an alternative form that refuses instrumentalist logics. In doing so, we draw from Foucault and postdigital research. The result is a recommendation to implement three principles in the design of micro-credentials. The first is the principle of being embedded in the curriculum, the second is alignment with the university mission, and the third is a critical and reflective pedagogy. This recommendation offers further possible subjectivities.

Introduction

Alternative credentials come in various forms. They can be short courses, micro-credentials, or digital badges, to name a few. Alternative credentials differ from those usually offered by universities in that they are delivered in a relatively compressed timeframe anywhere from 1 hour to a few weeks, are usually delivered in an online mode, and are usually not formally accredited. Alternative credentials are available to both current university students and the general public, usually professionals (Kato et al. 2020; Oliver 2019; Selvaratnam and Sankey 2021). Alternative credentials have been developed primarily in response to the issue of employability (Oliver 2019). They are easily displayed on social media and hold the promise of allowing students to stand out in a crowded employment field. They are also suggested as a solution for quick upskilling for employees (Oliver 2019). Alternative credentials are attractive

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to the university sector as they can be relatively quick to develop, can be ‘stacked’ towards other, formal credentials, and are useful as marketing tools. For these reasons, the development of alternative credentials is becoming popular for institutes of higher education (Kato et al. 2020; Oliver 2019; Selvaratnam and Sankey 2021; Swinnerton et al. 2018).

This paper focuses on one form of alternative credentials, micro-credentials. We have chosen this form as we are situated in Australia, and it is acknowledged that Australia is a leader in developing micro-credentials (McGreal and Olcott 2022). The Australian federal government is responding to recommendations that micro-credentials be included in the national accreditation framework and that funding be accorded to federally funded universities (Bean and Dawkins 2021). Whilst our paper is positioned in Australia and focused on micro-credentials, our counter-narrative also draws from many sources from elsewhere.

Increasingly, micro-credentials are being critically appraised for various reasons such as, in relation to the status in national systems of qualification, the claim that they make students more employable, their ‘role in the neoliberal learning economy’ (Ralston 2021: 84), and their accessibility to students. In regards to this, Kift (2021: 13) argues for caution and writes ‘the unmediated embrace of micro-credentials as pathways to employability must be challenged’. Furthermore, she raises questions about the ability of all students to access micro-credentials. Ralston (2021: 97) also critically appraises micro-credentials and positions his argument in the postdigital perspective. He argues that ‘the postdigital affords opportunities to meliorate the effects of the microcredentialing craze by reintroducing a distinctly human element into the mix’. We aim to contribute to this by considering what a ‘human element’ might be and recommending design principles to introduce this element.

Our critique of micro-credentials and suggestions for designing them differently is aimed at providing a counternarrative to the ‘unmediated embrace’ (Funes and Mackness 2018). We do this by asking the following: How can micro-credentials be designed and delivered to be more inclusive and ethical?

We address this question through developing a ‘counter-narrative’ which positions our work in the field of postdigital research. We deploy a Foucauldian framework to formulate a narrative counter to the currently dominant narrative about the value of alternative credentials. Foucault’s work on subjectification (1983) is deployed in this paper to review the current state of micro-credentials looking for expressions of neoliberal attitude (Ball 2016). We review current instances of digital education that also focus on subjectivity. Furthermore, Foucault’s work on ‘critical ontologies’ provides a way to suggest an alternative to designing and delivering these credentials that are arguably more ethical. Our counter-narrative critiques, the current state of micro-credentials whilst acknowledging there is potential in micro and other forms of alternative credentials.

We argue that micro-credentials can be more inclusive and ethical if they are designed with the following three integral principles. The first is the principle of being embedded in the curriculum, the second is alignment with the university mission, and the third is a reflective pedagogy that is aware that the subject is formed in discourse. The incorporation of these principles aims to recognise current benefits

and limitations and attempts to move beyond. Furthermore, these principles might also be considered in online design and delivery more generally.

What Are Micro-credentials?

Alternative credentials have been defined as credentials that ‘are not recognised as standalone formal educational qualifications by relevant national education authorities’ (Kato et al. 2020: 8). The form alternative credentials take varies and currently includes micro-credentials, digital badges, MOOCs, and, more recently, credentials offered by such firms as Microsoft.¹ These credentials are claimed to respond to the fast pace of the needs of the labour market, to widen participation as it allows new ways to attend university, allow for new ways to gain skills that do not require large economic outlay, and diversify a university’s field of operation (Kato et al. 2020; Oliver 2019). For these reasons, they are increasingly attractive to universities, with Kato et al. (2020: 21) reporting in their study of 190 US higher education institutes ‘over 60% of the respondents agree that they see alternative credentials as an important strategy for their future’. According to McGreal and Olcott (2022), there is a sense that all universities will enter the alternative credentials market.

Definitions of micro-credentials differ across the world. According to Kato et al. (2020: 8), the US definition refers to ‘more than a single course but less than a full degree’, the European definition is a ‘sub-unit of a credential or credentials that confer a minimum of 5 ECTS and could accumulate into a larger credential or be part of a portfolio’, whereas in Oceania, the definition is much wider and includes both. The definition increasingly adopted in Australia (Selvaratnam and Sankey 2021) is as follows: ‘a micro-credential is a certification of assessed learning that is additional, alternate, complementary to or a formal component of a formal qualification’ (Oliver 2019: i). The Australian Government (2021: 9) recently adopted this last definition, with the addition of ‘with a minimum volume of learning of one hour and less than an AQF award qualification’.

Micro-credentials are created by unbundling which is the ‘process of disaggregating educational provision into its component parts likely for delivery by multiple stakeholders, often using digital approaches and which can result in re-bundling’ (Swinnerton et al. 2018: 219). Unbundling has been said to increase granularity of offerings, flexibility, and access for students (Czerniewicz et al. 2021). Unbundling can also be done to skills and competencies, such as Graduate Attributes, i.e., critical thinking. Micro-credentials can be ‘stacked’; a process whereby students ‘can build their micro-credentials into larger, more recognisable credentials’ (Ralston 2021: 84). Such unbundling is profitable to the university (Ralston 2021).

Micro-credentials are intrinsically linked to the workforce. They are positioned as ‘potential solutions to the rapid upskilling that will be required’ (Selvaratnam and Sankey 2021; Ralston 2021). They are marketed to students as allowing them to showcase their achievements to potential employers, usually through the form of

¹ See <https://docs.microsoft.com/en-us/learn/certifications/>. Accessed 15 March 2022.

a digital badge using blockchain technology (Williams 2019: 108). Indeed, the lack of this explicit link to the workforce can result in micro-credentials being considered as not ‘robust’. As Oliver (2019: ii) writes, ‘[t]o add value, micro-credentials need to provide robust evidence that they enable skills education that is strongly related to work and results in work opportunities’.

Overwhelmingly, the discourse around micro-credentials is rarely without this reference to the needs of workforce (Kato et al. 2020). The recently released Australian Government micro-credentials framework (2021: 2) states the credentials can potentially ‘rapidly upskill and reskill the workforce’. The ‘dual signal’ (Oliver 2019: 25) of industry coupling with universities, is considered attractive to students. A different Australian Government report regarding university and industry collaboration (Bean and Dawkins 2021) has also recommended the ‘scaling up’ of micro-credentials, arguing that this will help meet the needs of industry. This report also recommends ‘higher education providers and industry work together to build a stronger culture of partnership in the development and delivery of industry-focused micro-credentials’ (Bean and Dawkins 2021: 12) and has recommended government funding to this end. Further, it recommends extending the accessibility to government student loans (FEE-HELP) for students enrolled in micro-credentials. This funding is currently limited to students in accredited courses.

Micro-credentials differ from the usual offerings of universities in that they sit outside formal accreditation (McGreal and Olcott 2022). In Australia, for example, they are not part of the national accreditation system, the Australian Qualifications Framework (AQF). This may change as the recent 2019 AQF Review notes the need for the AQF to be more responsive to industry, as is the New Zealand version (Kato et al. 2020: 29). On page 9, the recommendation for the AQF reads as follows: ‘The AQF Pathways Policy is revised to broaden guidelines for credit recognition across AQF qualifications and to define and provide for recognition of shorter form credentials, including micro-credentials, towards AQF qualifications.’ (in Selvaratnam and Sankey 2021).

Notwithstanding the push to formal accreditation, the current lack thereof is attractive as it enables the relative speedy development of bringing a micro-credential to market (Selvaratnam and Sankey 2021). For this reason, micro-credentials, in the words of Oliver (2019: 8), ‘might play a central role in re-forming pre- and particularly post-Bachelor education’.

Being situated in Australia, we use examples from here to review the state of micro-credentials. Currently, there are only a few examples of micro-credentials for enrolled students in Australia. This type of credential is generally presented as a digital badge that students can put on their resume and/or their professional social media identity. These are usually achieved through extracurricular activity. Griffith, RMIT and Deakin universities are leaders in offering micro-credentials (McGreal and Olcott 2022). RMIT for example, offers eight micro-credentials, all of which are extracurricular,² or as (McGreal and Olcott 2022: 16) call it, ‘nice-to-do’. Externally

² See <https://www.rmit.edu.au/study-with-us/levels-of-study/short-courses?q1=21cc%20Credential;x1=ecbProductLine>. Accessed 15 March 2022.

facing micro-credentials are offered by a university to the general public. Again, the emphasis is on the development of employment skills.

Given the governmental recommendation and the increasing importance of micro-credentials to universities, we believe that the answer to the question of whether micro-credentials are a ‘fad’ (Ralston 2021) or not is that they are here to stay, at least in Australia and New Zealand. Further, as these countries are considered ‘leaders’ in the field, we would go so far as to suggest that micro-credentials will become a standard feature in systems of higher education. This raises the issue of reviewing such credentials critically.

Critiquing Micro-credentials

The critical appraisal of micro-credentials, and by extension other forms of alternative credentials, is increasing (Ralston 2021: 90). Kato et al. 2020: 8) for example, note there is ‘great uncertainty’ regarding micro-credentials, including around definitions, structuring, industry recognition, replacement of teachers, and governmental responses. Whether or not industry ‘needs’ micro-credentials is another uncertainty (McGreal and Olcott 2022). There is uncertainty around workload for academic staff and the link between micro-credentials and promotion ((McGreal and Olcott 2022). Students can be ‘overwhelmed as they attempt to navigate, compare, and gain recognition of these smaller credentials from employers or other providers’ (Bean and Dawkins 2021: 35).

The Australian government plans to introduce a Micro-credentials Marketplace in an attempt to address these issues (Australian Government 2021). Announced in 2020, the Marketplace is yet to be established. There are also questions around understanding the impact of the credentials on the perception of employers (Kato et al. 2020). A further uncertainty, and the one we follow in this paper, is the issue of accessibility and the problem of making micro-credentials more inclusive. In writing of this problem, Kift asks:

How do we support all students, and particularly equity and first-in-family students, to navigate the dizzying array ... on offer in the absence of a coherent, overarching lifelong learning narrative? Issues here include: availability of quality careers advising; unhelpful fragmentation of education; an inability to assure micro-learning in ways recognizable by employers; and the untested promise of stackability, which may actually lead to incoherent qualifications. (Kift 2021: 13)

The intrinsic link to the workforce is also a concern, not only because it further entrenches universities in the neoliberal economy but also because it limits the type of education possible. Ralston (2021: 84) argues that ‘microcredentialing is an outgrowth of the neoliberal learning economy’ whereby education is a commodity and students are consumers. He argues that, as such, only a ‘narrow range of skills or competencies’ are cultivated (85) which is vastly different from the traditional ‘rich educational experience whereby teacher-scholars share new vocabularies, culture, and dispositions to learn with their students in an ongoing and mutually edifying

conversation (92). He reads this as a ‘betrayal’ of the higher purpose of the university. His challenge is for the postdigital ‘to meliorate the effects of the microcredenti-
tialing craze by reintroducing a distinctly human element into the mix’ (97) with ‘human’ understood as a critical perspective and ‘soft skills’.

The work of critically re-appraising and re-imagining micro-credentials and other forms of unbundled credentials is an imperative for postdigital research. As Ralston (2021) argues, the pedagogy most commonly used in micro-credentials is one that cultivates a narrow range of competencies and dispositions. We are interested in micro-credentials that do otherwise that aim not at replicating neoliberal subjectivities.

‘Emancipatory’ Subjectivities

The field of postdigital research is contributing to a critical reappraisal of postdigital encounters and finding emancipatory potential (Jandrić and Hayes 2021; Networked Learning Editorial Collective 2021; Hurley 2022). Common to such research is the fight for subjectivity. Ball (2016: 1131) writes, ‘subjectivity is now a key site of political struggle’. We become subjects due to the choices we are able to make under certain circumstances. We result from these constrained choices. This is the process of subjectification. Besley (2002: 62) describes this as ‘the way in which choices we make under certain conditions create who we become’.

Michel Foucault’s work is integral to understanding processes of subjectification. His aim was ‘to study ... the way a human being turns himself (sic) into a subject’ (Foucault 1983: 208). His ‘critical ontology’ was not so much a method but an ethos of how this might be achieved by investigating limits and attempting to go beyond them.

The critical ontology of ourselves has to be considered not, certainly as a theory, a doctrine, nor even a permanent body of knowledge that is accumulating; it must be conceived as an attitude, an ethos, a philosophical life in which the critique of what we are is at one and the same time the historical analysis of the limits imposed on us and an experiment with the possibility of going beyond them. (Foucault 1984: 50)

The fight for subjectivity requires that dominant subjectivities, limits imposed upon us, be revealed, and possibilities for new subjectivities be created. Several decades ago, Braidotti (1994: 1) argued that there is a ‘real urgency to elaborate alternative accounts, to learn to think differently about the subject, to invent new frameworks, new images, new modes, of thought’ (emphasis added). The ‘“attitude” of neoliberalism’ (Ball 2016: 1131) is considered as one of the most important sites of struggle.

This current paper surfaces this ‘drama of self and government [read neoliberalism]’ (Ball 2016: 1131), with reference to micro-credentials in order to elaborate an alternative account. We thus contribute to ‘resisting the instrumentalising, ethically lax ways in which the ed-tech tends to be described in the industry, political and management spheres’ (Bayne et al. 2020: 11). In so doing, we seek to undermine the almost indelible link between micro-credentials, and other forms of digital

education, and employability, a link that Bayne et al. (2020: 11) refer to as ‘techno-instrumentalism’. Our destabilisation aims to ‘be more explicate in its critical non-complicity with such instrumentalist logics’ (Bayne et al. 2020: 41). In being more explicit, we aim to contribute to research raising questions of the processes of post-digital subjectification and aim to suggest ways that may enable new forms of the subject.

Previous postdigital research has also taken such a path. Postdigital work critiques digital platforms, which according to Jandrić and Hayes (2021: 167) shape our subjectivities and also considers forms of ‘emancipatory’ subjectivities. Hurley (2022: 3), for example, uses the work of Foucault to investigate the subjectivities of Middle Eastern women (MEW) and argues that Tiktok is ‘a discourse of subjectification’ (3). She finds that the platform affords the ability for MEW to contest patriarchal subjectivities. Jandrić and Hayes (2021: 162) examine the first blockchain university, the Woolf University, arguing that it allows for a ‘radical non-capitalist disruption of higher education’.

The Networked Learning Editorial Collective (NLEC) (2021: 318) writes that ‘critical and emancipatory dispositions have been a strong undercurrent in networked learning, though they do not always surface in summaries of the field’. Networked learning has features such as the co-construction of knowledge, critical reflexivity, dialogue, and social justice. The ‘emancipatory’ possibilities of digital platforms seem to exist, with ‘emancipatory’ understood as ‘the work of understanding how we become subjects of knowledge, including the knowledge of critical pedagogy (Kim and Pollard 2017: 64).

How do we become subjects of knowledge through micro-credentials and how might new subjectivities form through different ways of doing micro-credentials? Jandrić and Knox (2021: 3) remind us that ‘before seeking new understandings, it is useful to briefly examine the current’. We have briefly, in this section, looked at research that directs attention to the emancipatory potentials of postdigital encounters. Next, we present a counter-narrative of micro-credentials that seeks to both examine the current limits and propose a form of micro-credentials into which is designed the ‘emancipatory’ potential.

Postdigital Counternarrative

Postdigital research and development in higher education acknowledges the increasing importance of technology in teaching and learning but rejects ‘the implied conceptual shift of the “digital revolution”’ (Pepperell and Punt 2000: 2). Rather, this field seeks to critically appraise new technological trends and their effects. ‘It is not a chronological term but rather a critical attitude (or philosophy) that inquires into the digital world, examining and critiquing its constitution, its theoretical orientation, and its consequences’ (Peters and Besley 2019: 30). Technology is considered political, with underlining ‘assumptions and worldviews’ that have very real effects (Jandrić and Knox 2021: 3). The aim of postdigital research is to examine the assumptions and worldviews underpinning digital education. It aims at ‘holding-to-account ... [and] seeks to look beyond the promises of instrumental efficiencies ...

to establish a critical understanding of the very real influence of these technologies as they increasingly pervade social life' (Jandrić et al. 2018: 895).

Postdigital education, in all its forms, has moral and ethical implications. It contributes to how we understand who we are as subjects. Peters and Besley (2019: 30) refer to this a 'critique of digital reason'. Hui writes that a postdigital critical account of technology moves away from the 'empty rationalism of Western technology' and towards 'reinventing the self and technology at the same time, giving priority to the moral and ethical' (Hui 2016: 290 in Jandrić and Knox 2021: 9).

Our counternarrative begins by considering the current state of micro-credentials. We consider various benefits for students and for the university and then proceed to examining their elements with a focus on their extra-curricular nature, the focus on employability, and the deployment of an instrumentalist pedagogy. We argue that these elements tend to result in an instrumentalist subjectivity.

The Current State of Micro-credentials

Many benefits of micro-credentials are posited for students. These include flexibility as no timetabling is usually required. This makes them far more accessible than campus offerings. Writing of 'Blockcerts', Williams (2019: 111) suggests that they 'would be accessible at times and locations to suit student'. Another benefit is that they are portable as they can be recognised across different nations and states (Williams 2019). They allow graduates to distinguish themselves to future employers. Degrees are becoming increasingly common and are being valued less (Ralston 2021), so holding a micro-credential is considered as a way 'for students to distinguish themselves in other ways' (Stevenson and Clegg 2011: 232). Micro-credentials provide recognition of skills and competencies that are not easily explicated from a traditional university degree, thus indicating the preparedness of graduates for employment (Oliver 2019: 1, Ralston 2021).

Universities see great benefits to alternative credentials and to micro-credentials in particular. They are said to provide new sources of revenue for universities (Oliver 2019). They are posited as opening university study to under-served cohorts, particularly women with family responsibilities (Oliver 2019; Lambert 2019; Sener 2010; Hoey 2020). It is posited that 'stacking' will also widen access to higher education (Czerniewicz et al. 2021).

The benefits for academics and teachers of micro-credentials are not as well documented as the benefits for students and the university. One may well conclude, given the embrace by university administration, that there are very few benefits for those developing and delivering micro-credentials. Indeed, it could be argued that they contribute to the precarious position of teachers. One of the major consequences of digital disruption in higher education is the 'radical precarization of teachers' (Jandrić and Hayes 2021: 165). In Australia, for example, the higher education sector 'has the third-largest casualised workforce after health care and social assistance, and retail industries, and before the hospitality sector' (Savage and Pollard 2016: 3). It seems difficult to imagine any benefits of micro-credentials as those teaching them will more than likely be casually employed. However, as we argue below, perhaps

one of the benefits for academic staff is working out how micro-credentials can be designed and delivered in an ‘emancipatory’ manner.

Extra-curricular Positioning

Internally facing micro-credentials are designed for enrolled, mostly undergraduate students. Arguably, these credentials are desirable as they enable students to highlight attributes such as academic excellence, employability skills, and leadership and are said to distinguish students, particularly in terms of employability. They are positioned as valuable to students and provide a signal to prospective employers. Kato et al. (2020: 28) write that this allows ‘employers to more reliably identify the quality of skills possessed by candidates’. However, a limitation of these micro-credentials is that they tend to sit outside of the curriculum. They are ‘nice-to-do’ but not essential to academic progression and graduation. They involve extra work which may include online modules, attendance at workshops or webinars, submission of assessments, attendance at interviews, site visits, and study tours. This extra-curricular nature of micro-credentials means that many students are excluded.

Extracurricular activities (ECA) are a traditional and valued aspect of university life. Student clubs, societies, student unions, student newspapers, musical, and religious activities amongst others are important not only for social connections but because they can contribute to identity, employment outcomes, and affect retention and success (Stevenson and Clegg 2011). With some exceptions, ECA can develop a narrow range of skills and competencies and can make students more employable, which is similar to what micro-credentials aim to achieve. However, the traditional understanding of ECA has been widened by Stevenson and Clegg (2011) to include ‘the actual activities students were engaged in. These include employment, care giving responsibilities, volunteer and religious work.’ (cf. Stuart et al. 2011).

The reason for the change to recognising out of university activities was due to the understanding that ‘traditional’ ECA were ‘differentially access and valued’ by students and by the institutes of higher education (Stevenson and Clegg 2011: 232). Activities such as part-time work, caregiving, religious, and cultural activities were valued less. Students who engaged in the less valued activities were more likely to be as follows:

working class, mature and/or minority ethnic (with the exception of Asian students) are generally engaging less in university-linked ECAs and pub/café-based socialising, but more with community (religious, voluntary and family [and paid employment (208)]) activities, as well as solitary activities (for example, online networking) (Stuart et al. 2011: 212).

Minority students are missing out on the social capital ‘inherent in ECA (particularly university-linked, leadership role and team-based activities)’ (Stuart et al. 2011: 212; cf. Clark et al. 2015).

There remains a further problem of ECA, that of a student’s ability ‘to conceptualise their activities as contributing to their future employment’ (Stevenson and Clegg

2011: 232). Students must be able to understand how their ECA contribute to their cultural and social capital. Stevenson and Clegg (2011: 243) found this is an ‘intriguing’ and under-researched and suggest further research into ‘the extent to which the interpretations students placed on their activities were open to pedagogical interventions’.

Employability

Micro-credentials focus on a very narrow range of skills and capacities; almost all of which are linked to future employment (McGreal and Olcott 2022). Ralston argues that learning achieved through micro-credentials is always short term as skills for employment are constantly expiring. ‘Ultimately, the business model for microcredentialing is an architecture of planned obsolescence combined with the perpetual return of workers to commodified e-learning’ (Ralston 2021: 86). Furthermore, Ralston argues that this can ‘undermine higher education’s traditional mission’; this being to ‘educate the whole person for the sake of a higher quality life, not simply transmit specific hard skills and technical competencies suitable for work’ (94). He uses the work of Dewey to further critique the educational aims of micro-credentials arguing they abandon ‘the higher purpose of education: namely, to serve society-at-large, not simply corporations and industry’ (92).

A similar criticism is also found by Cliff et al. (2020) who interviewed South African educators regarding the unbundling of higher education degrees. A Vice Chancellor at a regional South African university expressed concerned that corporate culture might trump the local culture and context that students are asked to consider in their time at the university. ‘It is our view that this is a cultural contestation: the for-profit, competitive culture of the market or needs of industry bumps up here against the for-public good, locally responsive culture of this rurally located institution’ (Cliff et al. 2020). The problem of the unbundled vocational skills that trump local culture and context is further addressed in the next section where we argue for a different form of pedagogy for alternative credentials.

Instrumentalist Pedagogy

Micro-credentials tend to utilise a transmissive and/or transactional form of pedagogy. Cliff et al. (2020) argue that transmissive pedagogy ‘essentialises curriculum as reproductive, uncontested and assimilationist’. Regarding transaction pedagogy, Ralston (2021: 95) claims ‘micro-credentialing poses a moral hazard by premising further learning on a transactional, profit-driven relationship between universities, clients, and vendors’. As described above, there are examples of attempts to create different forms of subjectivity through digital education, i.e. Woolf University. However, given the over-whelming dependence of micro-credentials upon instrumentalist pedagogies, it is worth further consideration.

Transmissive pedagogy has long been critiqued, primarily through the work of Freire (1970) and his critical pedagogy. This is a type of pedagogy that posits that ‘the students — no longer docile listeners — are critical co-investigators in dialogue

with the teacher’ (Freire 1970: 45). Cliff et al. (2020) propose a different form of pedagogy when they argue for a ‘pedagogy, as an integral component of curriculum, [that] is critical, self-reflective and embedded in mutating forms of knowledge production and reproduction and, imbued with goals of social justice and parity of participation by all role players’.

The problem of transmissive pedagogy extends beyond micro-credentials. Teachers in online courses more generally, and according to Czerniewicz et al. (2021: 11), ‘perceive online teaching as a rigid mode of delivery that does not provide possibilities for meaningful pedagogical actions’.

Towards An Alternative Subjectivity

At this point in the counter-narrative, we can perceive the ideal subjectivity of the current state of micro-credentials. Without wanting to make too much of a speculative leap, we argue that the subjectivity of micro-credentials is neoliberalist. Zembylas (2018: 255) refers to this as an ‘individualistic, possessive, and competitive subjectivity’ and argues that forces such as ‘globalisation, commodification and marketisation’ enter higher education and ‘determine curricular goals, outcomes, and even teaching and assessment methods’ (261). This impacts upon possible subjectivities. He argues for the opportunity ‘to encourage socially just, convivial, anti-racist and critical curricula and pedagogies’, and, we argue by extension, different forms of the subject.

How can a university enable students to benefit from micro-credentials whilst at the same time aim to ‘meliorate the effects of the micro-credentialing craze by reintroducing a distinctly human element into the mix’ (Ralston 2021: 97)?

We understand ‘distinctly human element’ as the fight for a different subjectivity, one that seeks to understand the limits imposed and seeks to create otherwise, including the limits of our suggestions. In the next section, we discuss three principles of design and delivery which aim for this ‘emancipatory’ effect. Rather than implicitly re-inscribing an instrumentalist subjectivity, these principles are directed towards enabling students to examine the limits of micro-credentials upon subjectivities. These principles are (1) embedded and assessed, (2) aligned to the university mission, and (3) deploying an active and reflective pedagogy.

Embedded in Curriculum

Alternative credentials, especially internally facing badges, can be shifted into the regular curriculum of a degree and become credit bearing. Embedding micro-credentials within the curriculum has the potential to affect how students understand their social and cultural capital. What sort of difference would it make if students attained these valuable distinguishing credentials for credit bearing units of study?

Whether students are able to conceptualise their activities as contributing to their future employability, and whether ECA is a route to building and consolidating social and cultural capital (Bourdieu 1977, 1986), is of critical importance. Academic skills are an example of such embedding. These skills and associated

programmes have traditionally been considered outside of the curriculum and thus an ECA. Wingate's (2006) cogent argument, one that has had considerable effect upon the development of academic skills, is that these programmes work best when fully integrated into the curriculum. This is because, as argued in Wingate 2006: 454, 'extra-curricular skills courses are often not attended by the students who need them most, but by higher achieving students who want to enhance their performance further'.

Wingate argues the need to embed such programmes into the curriculum and this has since become regarded as best practice for academic skills. 'Embedding skills ... has been widely regarded in Australia, South Africa, and the United Kingdom as best practice since the early 2000' (Harris 2016: 291). Embedding opens up formally closed opportunities. If the skills and characteristics that micro-credentials target are deemed necessary for students, then, perhaps they are best integrated to the curriculum. This embedding can be inclusive of other ECA, such as employment and community activities. If it is agreed that there are benefits to micro-credentials, including the benefits of standing out to potential employers, then embedding them into the curriculum allows all students to participate.

Aligned to the University Mission

We agree with Ralston (2021: 97) that alternative credentials can aim 'to cultivate human, critical, or soft skills too'. These skills feature in some micro-credentials in Australia. For example, RMIT Creds³ includes extracurricular credentials in 'Preventing Gender Based Violence' and in 'Building Cultural Awareness'. An argument to align micro-credentials to the mission of a university and embed them within the curriculum, in order to ensure that skills other than those recognised as employability can be included.

Most universities have mission statements intended to provide 'guidance for decision making and setting priorities' (Lang et al. 2019: 177). The mission statement encapsulates the values of universities and offers direction for inclusion of the mission in the practices and policies of the university. The themes of a mission statement usually address 'human flourishing' (Graham et al. 2017), as opposed to neoliberal concerns and tend to include such values as social justice and social responsibility, formation of the whole person, student diversity, and, in the case of faith based universities, spiritual beliefs (Sevensma et al. 2018).

The impact of the mission on everyday practices and decisions is not well researched and more is required (Firmin and Gilson 2009). Research regarding how the mission might align to alternative credentials moves beyond the current reign of neoliberalism and towards both recognising that 'soft-skills' are employability skills and that such credentials have a role in 'mission reappraisal' (Williams 2019).

³ See <https://www.rmit.edu.au/study-with-us/levels-of-study/short-courses?q1=21cc%20Credential;x1=ecbProductLine>. Accessed 15 March 2022.

Active and Reflective Pedagogy Based in Experience

In contrast to the transmissive and instrumentalist form of pedagogy that is the most dominant form deployed in micro-credentials, an alternative approach can adapt an active and inquiry-based pedagogy (Jandrić and Hayes 2021). What would an emancipatory pedagogy look like in the short form of a micro-credential?

This is quite an unexplored area as critical and reflective pedagogy is not usually considered in the short form. Such a form would have to borrow from online education that attempts to move beyond ‘techno-instrumentalism’. It would need to be an active-learning environment in which meaning is socially negotiated and students are actively engaged in the learning process’ (Rovai and Downey 2010: 146). To this end, Williams (2019: 113) suggests certain design principles for online learning, including real world relevance, ill-defined problems, collaboration, reflection, and diversity.

Leading on from ‘ill-defined’, another factor to be considered in a critical and reflective short-term digital pedagogy is the factor of messiness. Ross and Collier (2016: 21) write ‘the multiple factors involved in any class are bound to produce a certain amount of the unexpected’. Digital education has, as-yet, not grappled with the unexpected and the uncertain. Ross and Collier argue that the focus on accountability and evidence when it comes to designing digital education, means that instructors ‘determine what students will learn, think, do (25). Further they argue that this means that learning becomes a routine and that play, curiosity, serendipity, and we shall add, surprise (Pollard 2008) is de-emphasised. How can the emancipatory pedagogy design in these neglected elements?

One of the benefits of deploying a different pedagogy is that it redefines micro-credentials beyond ‘techno-instrumentalism’ and puts ‘good digital education ... in the hands of teachers’ (Bayne et al. 2020: 14). We alluded above to this positive benefit of micro-credentials. The principle of reflective pedagogy requires considerable thought. This is academic work that may invigorate many teachers and allow them ‘take active control and ownership of digital education’ (Bayne et al. 2020: 14).

Conclusion

Alternative credentials are rapidly escalating; in terms of micro-credentials, in Australia, the federal government is being urged to increase funding and universities to partner with industry (Bean and Dawkins 2021). Little is to be gained by shying away and what is required are different forms of these credentials developed to align with a ‘critical philosophy of the postdigital’ (Peters and Besley 2019).

We argue that this means to critically analyse the forms of rationality inherit to current instances of micro-credentials and to pose alternatives. We review the current state of micro-credentials and reveal the current rationality of micro-credentials to be instrumentalist, with instrumental rationality that which aims ‘to gain the end of functional efficiency’ (Freidson 1986: 3), in this case, the efficiency of ‘industry’. We develop a counter-narrative that suggests that the neoliberal subjectivity can be

undermined through three design principles: embedded into the curriculum, alignment to the university mission, and a critical and reflective pedagogy.

One limitation is workload for teaching staff. Micro-credentials are so new that staff are inexperienced in teaching and the workload for developing and teaching micro-credentials has not yet been included in the workplace agreements which structure how university staff work in Australia. Hence, governmental reports and university policy is being quickly produced and agreements and rates of pay re-considered. What is not receiving as much attention is staff professional development (PD)? Staff need to be supported through PD to develop a style of teaching for micro-credentials. However, as discussed above, teaching in universities is done more and more by casual staff. Such staff are very rarely paid for PD. What is required then, as arrangements to pay casual staff for their input into developing curriculum.

We wish to end this paper with escapes. A Foucauldian method seeks not just to review limitations but to ‘experiment with the possibility of going beyond them’ (Foucault 1984). Our ‘emancipatory’ recommendations will not saturate possible subjectivities. It is the subjectivities that ‘go beyond’ what we have envisioned that is quite possibly the most interesting aspect of emancipation. For this reason, we further recommend a pedagogy that enables students and teachers to critically reflect upon itself as a pedagogy (Kym and Pollard 2017). Students need to be explicitly taught how to be non-complicit in instrumental logics, and this includes any instrumentalist effects of ‘emancipatory’ intentions.

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Declarations

Conflict of Interest The authors declare no competing interests.

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