

## The evolution of a micro-credential

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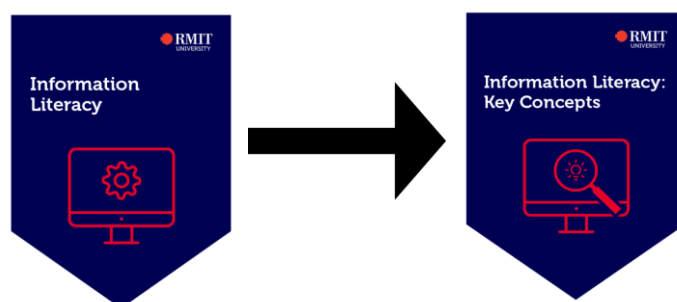
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In 2017, key representatives from the University microcredentials team and the Library collaborated to develop, deliver and embed into curriculum, digital literacy micro-credentials in multiple course shells via the University's new learning management system. The first microcredential delivered was Information Literacy. This credential aimed to address student needs to recognize when information was needed and strengthen their ability to locate, evaluate, and use information effectively (ALA Clearing House, 2017). Students who earned the microcredential were rewarded with a digital badge that outlined the achieved learning outcomes and recognition of this award was reflected on their official academic transcript. In addition, the badges were shared on social media platforms like LinkedIn as a way to demonstrate new skills and engage prospective employers. In 2019, the original credential was reviewed to ensure relevancy. A subsequent eight-week sprint process was initiated. The review process sought feedback from various stakeholders that included the RMIT Creds team learning designer, the subject matter experts (SMEs) from the Library and student reviewers. Results from the review process for the Information Literacy credential highlighted key changes to content and learning outcomes to reduce confusion for students and ensure learning outcomes addressed the module content directly. In addition, a shift away from a traditional educational context of information literacy to a broader professional context was also recommended to ensure relevancy to industry.

Keywords: Information Literacy, digital badges, microcredentials, Higher education, Australia

### Background



**Figure 1: Digital badge 2018**

**Figure 2: Digital badge 2019**

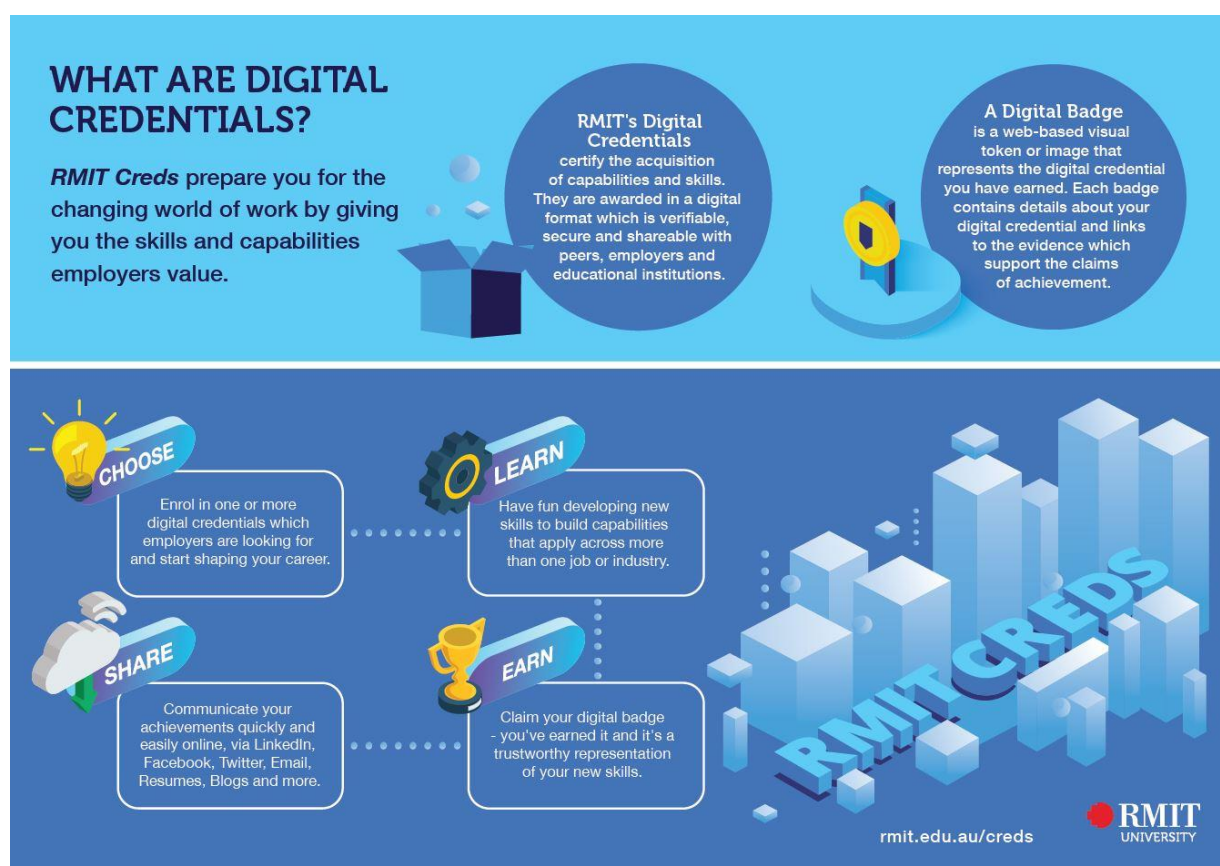
The labour market is recognizing two types of skills that are important in the future of work. They include “soft skills” such as communication and team work, the other relates to the increasing importance of digital skills (OECD, 2017 p. 19). To support this notion, the Australian workforce also identifies transferable skills such as collaboration, digital dexterity, and critical thinking as essential elements. (Bentley, 2018). The OECD estimates that 14% of existing jobs will disappear over the next 15 to 20 years with over 30% undergoing radical change (Centre for the New Workforce, 2019). Educational institutions are fast realising that they must respond to this current disruption and produce work-ready graduates in order to stay relevant.

The RMIT credentialing program was developed due to various industry, university and government reports, recommending certification of skills gained through formal and informal learning in workplaces or other alternatives to traditional university study. As noted: “Employers are issuing a clear call to action for universities to integrate their offerings more tightly into the fabric of the world of work” (Gallagher, 2019). To emphasize this point, the Deloitte Access Economics report (2017), states that employers want graduates with both education and evidence of skills for employment. A report by Emeritus Professor Beverley Oliver, reinforces the notion that rapid innovation will displace the current workforce and the demand for higher cognitive skills such as creativity, critical thinking and complex information processing will be paramount for new and emerging roles (Oliver, 2019). In addition, the author outlines that microcredentials operate at the intersection of academia and industry

and are seen as the bridge to achieve “better work-integrated learning and better learning-integrated work”. The author also emphasises the need for policy makers to provide strategic leadership in this space by supplying the resources needed for educational bodies and industry to capitalise on the opportunities that microcredentials present for upskilling (Oliver, 2019).

The newly formed RMIT Creds team have collaborated with key groups within the University and industry partners to develop multiple micro-credentials that address identified skills gaps. Ideation workshops and regular development meetings ensured both University and industry voices were heard and the content that was used was current and relevant. RMIT sees micro-credentials as an industry validated way for students to demonstrate skills and achievements that are transferable across sectors and careers. The badges and their associated metadata become evidence of competencies gained through life-long learning.

The following infographic represents what digital credentials mean to RMIT University.



**Figure 3: Infographic: What are digital credentials**

One of the first partners of the RMIT Creds team and early adopters of the credentialing model was the RMIT Library. In 2017, the Library worked with the Creds team to develop a series of credentials that aligned with current Library resources for students. One of the products that resulted from this collaboration was the Information Literacy credential. This credential eventually became a foundational piece for a stack of digital literacy credentials. The Digital Literacy Stack evidenced skills in planning, writing, using data, understanding and identifying emerging technologies, repurposing and sharing digital content, creating digital artefacts and writing for digital environments.

The Information Literacy credential was selected to be developed first, on the premise that Librarians clearly recognise information literacy as a key set of abilities that require individuals to distinguish when information is needed and subsequently strengthen their ability to locate, evaluate, and use information effectively (ALA Clearing House, 2017). In parallel with a strong connection to the subject matter, the library developed original content, and sourced existing and additional resources for inclusion. Ultimately it was decided that the process of developing a microcredential was a smoother pursuit because of the convergence of these factors.

In a case study approach, we outline the process that was undertaken to deliver this microcredential to the University community.

## **The creation of a Cred: The design and development process**

As an early adopter of the RMIT credentialing program, RMIT Library was one of the first divisions of the University to take part in the newly formed credential initiation, development and delivery process. The process began with the submission of a concept brief, followed by a product proposal outlining the skills, learning outcomes, target audience and industry partner, based on the initial idea. The proposal was then submitted to a central governance body that approved its development. This central governance body includes RMIT's Deputy Vice Chancellor - Education.

The RMIT Library developed a product proposal for a Digital Literacy stack/cluster that would focus on all aspects and skills associated with digital literacy. The proposed structure was based on the library's knowledge and understanding of the JISC Digital Literacy Framework (JISC, n.d.) which defines digital literacies as the capabilities which prepare someone for living, learning and working in a digital society.

As stated earlier, the Library's first development sprint began with Information Literacy. The reason for the selection was based on a pre-existing digital tool called iSearch, which delivered information literacy skills to students. This tool provided students with the capacity to find, evaluate, manage, curate, organise and share digital information. An important aspect for students was to interpret digital information for academic and professional/vocational purposes, and to review, analyse and represent digital information in different settings. The other aspect of skill development also included taking a critical approach to evaluating information in terms of its provenance, relevance, value and credibility, enabling students with the knowledge of information literacy to be equipped to find the information they need for any decision making process.

The University creds team allocated a learning designer who drove the discussion and creation of the credential over an eight-week sprint. Library staff self-nominated to be part of the development team and consequently engaged with elements of content writing, resourcing, design and referencing. All team members met once a week to discuss the framework and structure of the microcredential. Consequently, tasks would be allocated for completion by the following meeting. The execution of this work was very much an agile process, where the pace was rapid and the process was iterative for quick release.

The target audience for Information Literacy was RMIT students because it was considered an important foundational skill. The focus was aimed at commencing students, whether enrolled in higher education, post graduate or vocational education courses. The second focus group centred on those transitioning into the world of work. The anticipated learning outcomes were understandably centered in an educational context.

As at the end of Semester 1 2019, over 1,200 Information literacy digital credentials had been issued to enrolled students.

## **The Credential review process**

In order to ensure that credentials remain relevant in the changing world of work, RMIT Creds, in collaboration with industry partners and the internal product owner (in this case RMIT Library), undertake a review of each cred every twelve to eighteen months. The cred is evaluated from a pedagogical and functional perspective. Automarked quizzes, moderated submissions and rubrics are all reviewed so that they align effectively with the credential's learning outcomes. Design features and the scaffolded content elements within a credential are also unpacked and critiqued to ensure flow and clarity. Student feedback is collated, and its analytics assessed to find potential indicators of the success or failure of the cred. The evaluation process is performed in collaboration with the learning designer allocated by RMIT Creds and conducted in an iterative and agile sprint cycle.

The Library recommended several reasons for the review of the Information Literacy Cred. The Library wanted to increase the skill point level from five to ten points to better reflect the complexity of the content. It also became evident to library staff that some learning outcomes did not effectively match the course content, which also created confusion for some students.

Information literacy emerges from the fundamental understanding in libraries that to critically engage with information, or to be "information literate" is to know when information is required and then be able to identify, locate, evaluate, organise and effectively use the information to resolve a need (Bundy, 2004). Bundy (2004) also

alludes to the information literate person being one who uses these skills in workplace learning, independent learning and lifelong learning. The “common denominator” for all students when commencing University studies is the need to successfully access, organise, analyse, interpret, and reference information (Wright & McGurk, 1995).

The 2018 learning outcomes of the microcredential were based on this premise and had a focus on information skill acquisition in an educational context. The final four learning outcomes were only partially covered in the module and it became evident that other contexts would need to be included, such as personal or professional to address the true meaning of information literacy, support the learner from university into the world of work, and fulfil the impremada of microcredentials creating work-ready graduates (RMIT University, 2015). (see Table 1.)

**Table 1: Information Literacy 2018 Learning Outcomes**

<p>Articulate information needs</p> <p>Search for data, information and content in digital environments</p> <p>Create and update personal search strategies</p> <p>Analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content</p> <p>Analyse, interpret and critically evaluate the data, information and digital content</p> <p>Organise, store and retrieve data, information and content in digital environments</p> <p>Organise and process data, information and content in a structured environment.</p>
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Information Literacy was reviewed in the last quarter of 2018 with a view to completing all updates before Semester 2, 2019. The newly revised and updated cred would then be embedded into the traditional curriculum through the Learning Management System as part of a program to insert information literacy skills-based learning into eighty-two programs. Academic staff were empowered to determine how they embedded the credential. Some made it compulsory, requiring evidence of completion from students by presentation of their digital badge. Some made it optional, some wrapped the credential with other pieces of assessment, and some allocated marks for completion. The embed process is currently undergoing review with a view of standardising the process and ensuring greater clarity for all parties involved.

### **Information Literacy: Key Concepts 2019**

It is evident in literature that information literacy is a functional skill set that is helpful throughout a person's life, (Maass and Engeln, 2019) and an essential skill set with most jobs requiring some degree of research and an ability to access and use information. Studies have also suggested that a high degree of self-efficacy equips individuals with the confidence and ability to drive lifelong learning. Information literacy is a clear underpinning skill that drives this type of enquiry within individuals (Demirel & Akkoyunlu, 2017). People who understand information literacy are better able to search and locate information to solve problems with precision and accuracy. In today's workplace, employees must be able to conduct research to make smart choices about work tasks, finances, health or other significant decisions related to their jobs, education, families and roles in the community (CILIP, 2018).

A competitor analysis in the form of a review of similar offerings at Australian universities and their current approach to information literacy was performed as part of the research into how to improve the product and make it more relevant. The data that informed this analysis was collected through a literature and website review. It revealed that Universities generally took the educational/ academic approach when teaching information literacy and the majority of content was focused on library services, catalogues, information searching and referencing. A learning gap of information literacy outside an educational environment was identified - especially across health, lifestyle and workplace.

Student survey results also supported the view that students were looking for a learning product that would give them skills they could use outside university and in their future careers. As the review determined that approximately 60% of the content needed to be updated, the changes were treated like a new build and an entirely new credential was developed.

To disrupt the traditional academic approach, authentic learning that students could use and apply in the everyday context were introduced. Topics around Google search hacks, algorithms, filter bubbles and digital file management, were identified as relevant for today's students and tomorrow's workers. Additionally, learning how to interpret a task, identify keywords for searching, using online search platforms such as Wikipedia and Google Scholar, and developing a successful search strategy were included. Evaluating online websites for legitimacy using the CRAAP technique was also introduced (Wikipedia, 2019).

This approach aligned with the new learning outcomes developed to support the increase in points value of the credential and to reflect the shift away from the traditional educational context of information literacy to a broader professional context. (see Table 2)

**Table 2: Information Literacy: Key Concepts 2019 Learning Outcomes**

Identify and articulate your information needs for academic or professional purposes.  
 Develop, use and refine appropriate search strategies to locate relevant information.  
 Critically evaluate information for relevance, credibility and accuracy.  
 Retrieve, organise and store information and references in a digital environment.

The new microcredential, renamed "Information Literacy: Key Concepts" to differentiate it from its predecessor, was launched in June 2019. (see Table 2)

To date over 4000 students have enrolled in Information Literacy: Key Concepts. Though it is still too early to determine what the changes may mean for learners, student feedback sought during the development process of Information Literacy: Key Concepts was positive. "This will definitely be useful!" Since its release in June, 77% of 291 students surveyed said that what they learnt in Information Literacy: Key Concepts would be important for their future employment and 70% said they would be confident using the course to seek future life and work opportunities.

## Conclusion

The experience of building, delivering, and reviewing a microcredential has been an absorbing learning experience from a collaborative point of view. Understanding student needs and synthesizing those needs with the needs of industry has broadened the scope and nature of what librarians and other university stakeholders deliver to their student cohorts. The involvement of institutional and industry partners has magnified the significance of the librarians' role in the digital literacy landscape, by casting a broader lens over the way digital literacy is delivered to our student cohorts. It is anticipated that moving from the educational context and illustrating the broader context of work and life will make the microcredential more meaningful to the recipient of the Information Literacy digital badge and create a more genuine experience for the participant.

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