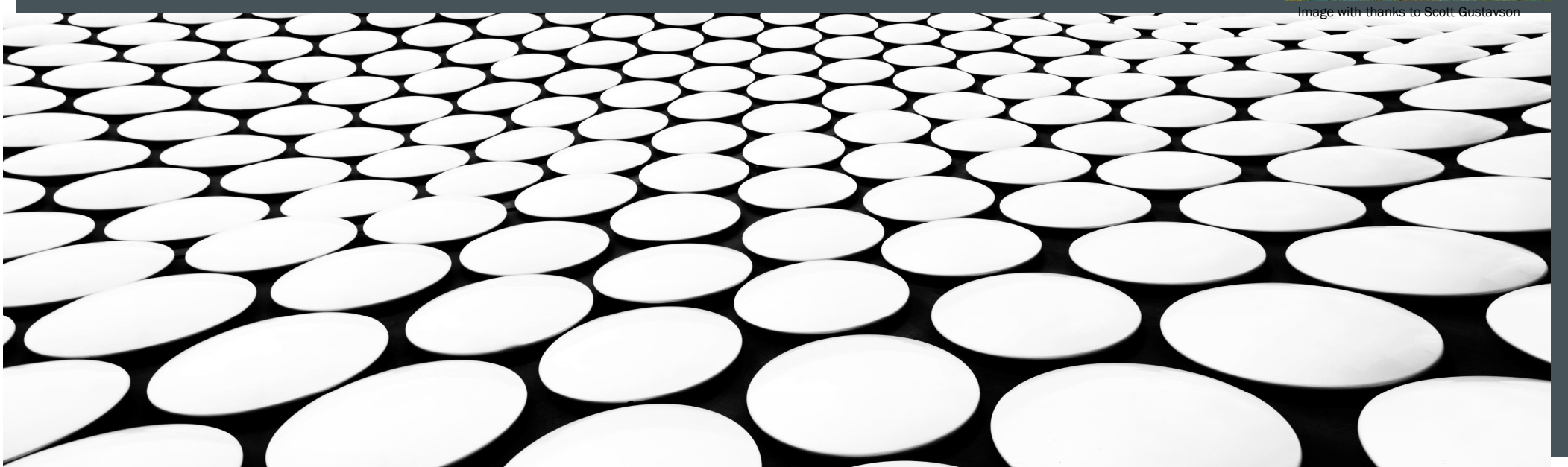


EVIDENCE OF OPINIONS ON THE PURPOSES OF DIGITAL BADGES

ALISON FOX WITH THANKS TO AMANDA SMITH



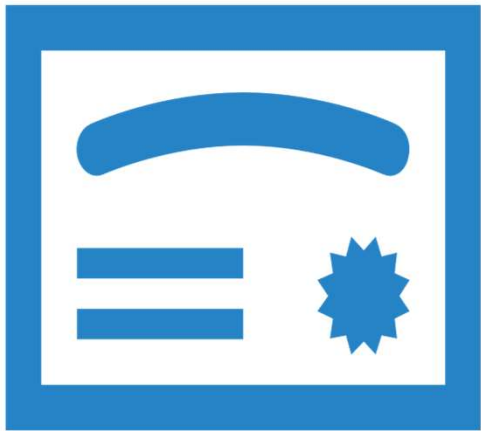
Image with thanks to Scott Gustavson



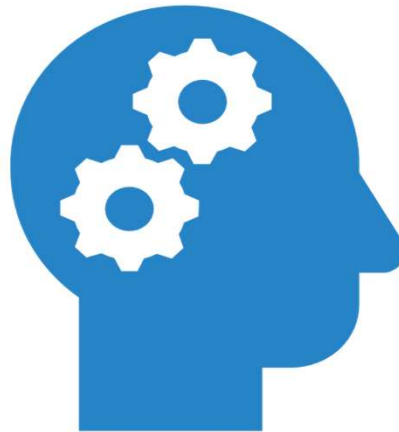
PUBLISHED EVIDENCE RELATED TO KEY AIMS OF THIS PROJECT

RQ1. How are open digital badges awarded for student employability valued by:

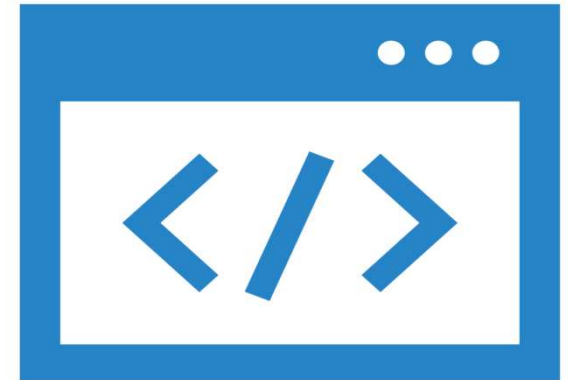
- A) students,
- B) staff,
- C) employers?



Research into the use of digital badges (DB) in higher education (HE) spans just over a decade.



Initially looked at the effectiveness of DBs in study management and student motivation



Became more interested in their use in supporting informal learning and as a 'virtual resume' ([The Mozilla Foundation 2012](#))

HOWEVER...



Despite employability taking on a 'central theme in HE' with the advent of the HEA Employability framework in 2015 ([Knox and Stone 2019](#)), DB integration in HE has been tentative.



There appears to be a 'gap between what HE delivers and employer needs' ([Ippoliti and Baeza 2017](#)).



OUR OPEN DIGITAL BADGES

OpenBadgeFactory

Peer PDP coach, mentor, team leader & student

WELS/MA programme

OpenBadgeFactory

B206 employability

FBL

OpenLearn

STEM

Online Journal club/Summer School/Scholarship

STUDENT PERSPECTIVES ON OPEN DIGITAL BADGING



There is very little published research related to the student perception of DBs as an employability tool



What there is relates to DBs supporting 'extra-curricular' activities rather than embedded within formal, taught modules:



10 recent studies have been identified.

Context	Evidence base	Key findings	Source
Australia	Case study including survey (n=34) – HEI/Industry collaborative non credit bearing DBs	expect most attractive to the less academic students but most intrinsically motivated most likely to participate; caution that if everyone receives these then they will have diluted value	Miller et al, 2020
UK, Sheffield Hallam	Survey (n=46) – scheme for recognising peer representatives	popular but wondered about their credibility with employers	Glover, 2016
Canada	Survey (n=16) and interviews – digital badges for professional development	felt less prestigious than paper certificates	Dyjur and Lindstrom, 2017
UK, Middlesex	Survey (n/a) - Information Literacy skill development of international students	students only valued those which were endorsed by external bodies	Rivzi, 2016
USA, Texas	Survey (n/a) - marketing training course using third party certifications	evidenced student enjoyment and perceptions of this giving competitive advantage	Laverie et al, 2020
USA, Mississippi	Survey (n=51, 122, 18)– National Instruments engineering company for skill development	two thirds shared their badges on social media, particularly those seeking professional recognition, appreciated credibility	Young et al, 2019
Turkey	Survey (n=79) – teacher education setting	enjoyed badges but did not particularly link them to employability skills; most motivated students applied for badges	Başal and Kaynak, 2020
China	Q sort (n=54) – badges used in a competitive ranking activity	identified neutral, extreme and skeptical (all were positive) students but danger competition might have limited educational outcomes	Zhou et al, 2018
UK, University of Southampton	Anecdotal – use for digital literacies	although popular, only one quarter actually applied for the badges	Harvey, 2017
Greece	Anecdotal – across range of Universities	sceptical about validity; lack of digital competence in using DBs	Anderson et al, 2017

STAFF PERSPECTIVES ON OPEN DIGITAL BADGING

The limited research on the staff perspective of DBs is usually about their use generally as opposed to their role in employability.

However, offer insights into assessing the impact of DBs

4 studies and evidence from 9 University websites found

Context	Evidence base	Key findings	Source
New Zealand	National survey of public tertiary institutes and interviews (n=124)	53.5% identified that their institutions intended to use/used DBs; identified benefits included displaying achievement, motivating learners and evidencing learning. Challenges were also noted, including faculty members' lack of knowledge about badges, inconsistent use and lack of formal regulation of badges	Hartnett, 2021
USA	Interviews (n=10)	skills-based badges considered more meaningful than participation badges; needs to be extensive 'buy-in', especially by faculty, to mitigate workload	Carey and Stefaniak 2018
Scotland	Survey (n=49) and case studies (n=5)	local rather than institution-wide initiatives; DBs considered 'disruptive', lack of knowledge about DBs insufficient technical support for staff for effective implementation, considered too 'gimmicky' to commit to, concerns about placing additional pressures on students and staff.	Anderson et al, 2017
USA, MidWest	Survey (n=108)	67% would not apply for their badges, 40% did not intend to use their badges and the top 4 barriers were the uncertainty of the value of DBs, a lack of time, a lack of awareness of how to apply for DBs and a lack of interest	Els et al, 2021

WEBSITES EVIDENCING BADGING FROM HEIS

Extra-curricular

- The Westminster University Award for extra-curricular activities
- 131 badges offered by the Coventry University Group for staff and students recognising range of extra-curricular skills and knowledge

Language/communication

- The Cambridge University Employability Digital and Global Engineer Digital Badges – with the latter in conjunction with the KTH Royal Institute of Technology of Stockholm and a French research laboratory (Institut Mines-Telecom – Didalang) focused on language and communication skill development

Digital skills

- The University of Edinburgh Digital Skills Toolkit and badges for staff and students linked to the 6 digital capabilities at beginner or advanced status identified in their Digital Skills Framework
- The University of Derby have used DBs as part of the digital capability discovery tool and handbook
- The Lancaster University Digital Skills certificate for attendance in minimum of 7 online courses
- Cardiff Metropolitan University digital badges awarded in partnership with Credly to students and staff for selected digital skills
- Coleg y Cynoeidd digital tutorial badges linked to professional development

Broad and emergent

- Newcastle University open badges for a range of achievements and includes scope for students to propose and develop their own badges

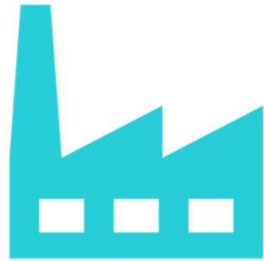
STAFF PERSPECTIVES ON OPEN DIGITAL BADGING

Issues identified similar to those of students re: possible lack of credibility but staff appear less enthusiastic

Lack of awareness & concerns that gimmicky, mean less likely to be prepared to invest time and hence only pockets of enthusiasm and badge development within institutions

Staff were interested in using DBs to track student progress. Potentially if not earned could be used as an alert for the need to make an intervention (Harvey, 2017,)

EMPLOYER PERSPECTIVES ON OPEN DIGITAL BADGING



Very little known about the employer perspective.



3 studies identified

Context	Evidence base	Key findings	Source
Local, national and global	Survey 2017 (n=73) and 2020 (n=8)	97% unfamiliar with the concept of digital badges; 62% positively interested in validating skills; 57% see as useful complement to traditional qualifications but interested in thinking more about value, credibility and security	Perkins and Pryor, 2021
USA, 7 school districts	Survey (n=70) - in relation to teacher recruitment	Lack of familiarity with concepts of digital badges and microcredentials until watched a video which increased perceptions of potential usefulness particularly in recruitment and tracking professional development. Identified challenges: time needed to review this kind of data, would not be a make or break criterion, credibility issues, potential hurdle for candidates.	Randall and West, 2020
USA, Seattle	Interviews (n=30) – with college admissions officers and technology	47% had heard of digital badges 20% had used badges 70% enthusiastic about their use for illuminating soft skills of applicants beyond their qualifications and a quick, visual way to review and sort applicants. Raised questions about credibility and quality.	Pitt et al, 2019

EMPLOYER PERSPECTIVES ON OPEN DIGITAL BADGING



Employers have very similar perceptions about DBs to students.



If there is an 'impasse' of badges not being 'used by employers,' learners are unlikely to pursue them' (Ahn et al. 2014)



Attaching value and credibility to DBs can only be achieved if students, staff and employers understand the benefits and limits to DBs and know how to use them effectively.



Credibility may be mitigated by developing credentialling systems, and co-design across stakeholder sectors would be beneficial. Further developments are needed.

EXISTING EVIDENCE RELATED TO KEY AIMS OF THIS PROJECT

RQ3. How can badging be developed in a way which is fit for purpose in terms of student and employer needs, and curriculum and delivery systems at the Open University?

HOW CAN BADGES BE MADE FIT FOR PURPOSE?



Raising awareness will help promote the credibility of DBs, so the starting point appears to be stakeholder involvement from the outset: student, staff and employer.



Taking a student led approach is exemplified; DBs are driven primarily by Students' Associations at the Universities of Edinburgh, Stirling and Dundee ([Anderson et al. 2017](#)).



Ensuring the purpose of the DB drives its design, and could offer a hierarchy for students to move from lower to higher skill levels, so creating manageable milestones ([Carey and Stefaniak 2018](#)). [Dyjur and Lindstrom \(2017\)](#)



Putting effort into graphic design, which will help promote credibility. Design takes time and experimentation and by taking an inclusive approach helps learners connect, strengthening their engagement with DBs ([MacKinnon 2021](#))



Developing strong partnerships between HEAs and employers ([Perkins and Pryor \(2021\)](#)).



Balancing pedagogical digital badge practice with employer needs, with clear curriculum outcomes, robust communication strategies and clear and precise badge detail ([Leaser et al. 2020](#)).

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- Assessment design and the credibility of issuing institutions are paramount to the value of DBs. Mitigating some of the challenges of DBs already highlighted will assist with their development to meet needs. Raising awareness will help promote the credibility of DBs, so the starting point appears to be stakeholder involvement from the outset: student, staff and employer.
 - Taking a student led approach is not unheard of; DBs are driven primarily by Students' Associations at the Universities of Edinburgh, Stirling and Dundee ([Anderson et al. 2017](#)). Students are more likely to enjoy, and be motivated by, a new pedagogical approach if they are 'given a voice in their own goal setting' ([Laverie et al. 2020](#); [Gibbons 2020](#)). The type of learner is key in terms of what a DB seeks to achieve, so DB design has to take account of the differing abilities and learning styles ([Başal and Kaynak 2020](#)).
 - The purpose of the DB should drive its design, so for differing abilities, adopting a hierarchy for students to move from lower to higher levels creates manageable milestones ([Carey and Stefaniak 2018](#)). [Dyjur and Lindstrom \(2017\)](#) also found that effort in graphic design promotes credibility. DB design should be 'professional looking and flexible', enabling users to 'display it in alternative platforms'. Design takes time and experimentation but taking an inclusive approach helps learners connect, thereby strengthening their engagement with DBs ([MacKinnon 2021](#)).
 - [Perkins and Pryor \(2021\)](#) suggest that a strong partnership between HEA and employers is needed for DBs to be effective. There is clearly scope to involve employers. [Anderson et al. \(2017\)](#) identify that one institution has 'collaborated with the Law Society of Scotland who help to assess group badges, and have discussed them with local employers', and another that discussions had been held with employers who 'in principle' were 'keen to contribute'.
 - There is a need to balance pedagogical digital badge practice with employer needs. Wayne Gibbons's DB developed in association with RPS - a multinational engineering consultancy firm – is a good example of how this has been achieved [GMIT Engineering Lecturer Develops Digital Badge Recognising Essential Skills & Qualities In Graduates](#). [Another is](#) seen in the partnership between IBM and Northeastern University ([Leaser et al. 2020](#)). The section 'Lessons learned, and recommendations' highlights the need for mapping of DBs to the curriculum outcomes, robust communication strategies and clear and precise badge detail.

EXISTING EVIDENCE RELATED TO KEY AIMS OF THIS PROJECT

RQ5. What role can badging play in strategies for inclusion and retention as well as enhanced employability?

Evidence shows that, whilst DBs serve as tools for inclusion, retention and employability, they cannot address these aims as a stand-alone concept. Instead, as Alt (2021) suggests, they should be used 'jointly' with other strategies.

INCLUSION

- [Good Work - The Taylor Review of Modern Working Practices](#) (Taylor 2017) states that the opportunity to develop and progress should be available to all'. DB's are significant in 'promoting equity' for the less academically minded and those not completing their degrees. In [Miller et al.'s \(2020\)](#) study, students 'expressed appreciation' that DBs were 'open' to everyone and not just the high achievers. The very fact that DBs give 'visibility to a student's learning pathway' means that all students can represent their achievements throughout their studies, helping to fill [Pitt et al.'s \(2019\)](#) 'disconnect' between what students study at school, career aspirations and opportunities.
- [The InnoVal Project](#) – explores the benefits of non-traditional assessment methods for validation for low skilled adults, migrants/refugees.
- Following [Bridging the Gap Between Digital Skills and Employability for Vulnerable Populations](#) (Lyons et al. 2019), these examples highlight the role of DBs in bridging the disconnect, by creating a wider range of educational pathways for the vulnerable and disadvantaged population to acquire valuable skills, thereby promoting employability.

RETENTION

- Varying assumptions are made about students entering HE – that they have the necessary skills sets and are digitally literate. As [Mah \(2016\)](#) identifies, students lacking these skills are at risk of failing and dropping out of HE. DBs create a digital footprint that can be used to track progress. Attaching DBs to generic skills e.g., critical thinking, time management, not only helps students focus on their strengths and weaknesses but also serves as an early warning system to identify struggling students in need of timely intervention.
- Retention is also impacted by motivation and [Risquez et al. \(2020\)](#) found that for time-poor academics undertaking CPD, DBs ‘served as a motivator for engagement and completion’. However, DBs did not have the same impact for initial engagement, or where participants were driven by the course content. Arguably, differing learning goals is why Alt (2021) in [Who benefits from digital badges? Motivational precursors of digital badge usages in higher education](#) suggests that DBs should not be seen as a source of motivation or promoted as such.

EMPLOYABILITY

- Of particular interest is [Miller et al.'s \(2020\)](#) 'unintended outcome' that DBs can help students develop as 'citizen scholars' i.e., their personal identity and social engagement. [Perkins and Pryor's \(2021\)](#) study found that students should 'get involved with social media and embrace digital literacy training'. This is important given that larger employers prefer students to showcase their achievements using digital CVs and LinkedIn as they can "search with greater accuracy students/graduates who have demonstrated/verified capability in specific skill sets".
- [Anderson et al. \(2017\)](#) found that some institutions not only encourage, but also provide training, for their students to display their badges on LinkedIn.