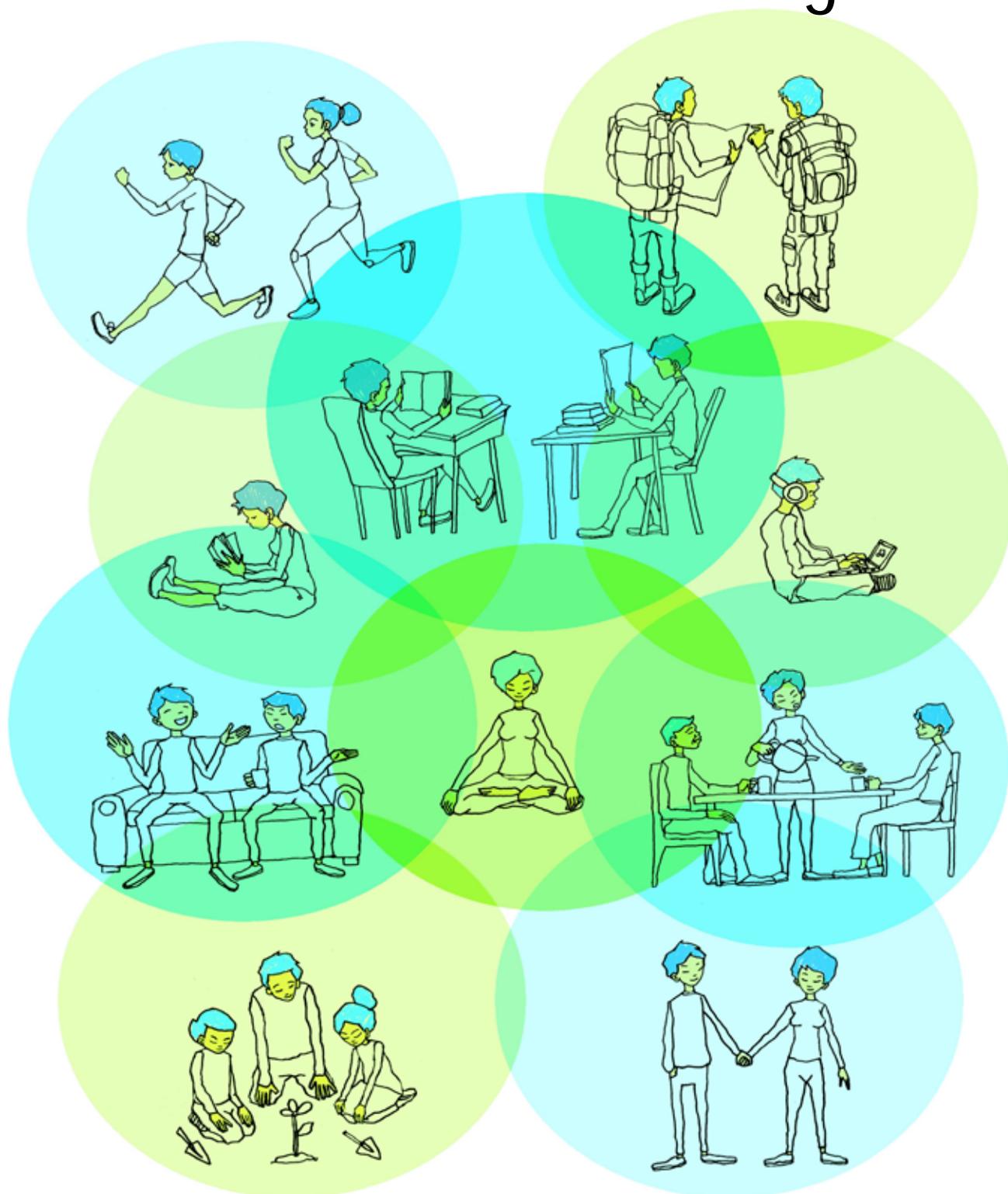


Lifewide Learning & Education in Universities and Colleges



Edited by
Norman Jackson & Jenny Willis
<http://www.learninglives.co.uk/>

CHAPTER B11

Towards the Devolution of Lifewide Learning Awards through Verifiable Digital Badges

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SUMMARY

Lifewide learning has grown in importance amongst UK universities, with many now offering award programmes to both encourage students to take part in extra- and co-curricular activities and to recognise their efforts in these areas. However, the typical requirement to align these awards with the existing academic year means that the submission and assessment of the awards occur at one of the most demanding times of the year for both students and staff. This paper suggests that a model for lifewide learning awards where the assessment activities are devolved to trusted third-parties would help to reduce the burden on students and staff. The idea of Open Badges, a standard for creating and sharing secure, verifiable digital credentials and evidence, is proposed and discussed using a case study as a means to support a devolved approach to lifewide learning awards.

BIOGRAPHIES



Ian Glover is a Senior Lecturer in Technology Enhanced Learning at Sheffield Hallam University. His role at the organisation is to promote and engage staff in the use of technology to support learning and teaching. He has held educational technology roles at a number of UK universities and has a PhD in the development of collaborative learning software.

Cathy Malone is an Education Developer at Sheffield Hallam University. With a background in language teaching she has worked for a number of years helping students manage the transition into Higher Education. This interest in supporting students during their studies has led to work on developing peer assisted learning programmes at Sheffield Hallam and exploring ways to accredit this.

INTRODUCTION

Lifewide learning has been described as "learning in different spaces simultaneously" (Barnett, 2011:22). This refers to the idea that learning occurs across an individual's entire



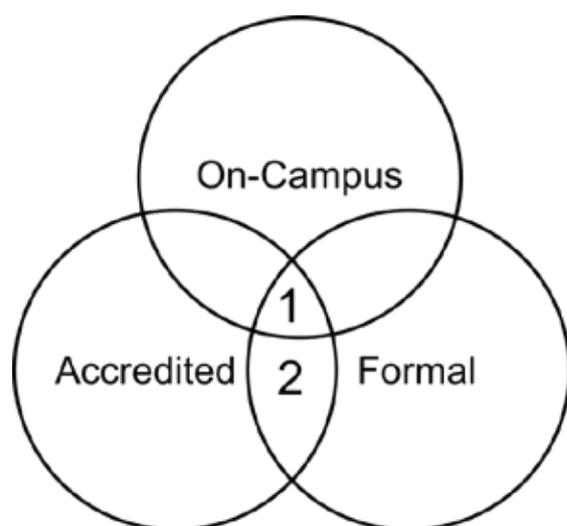
range of activity, not just their formal learning experiences (Jackson, 2011). These may be co-curricular activities, such as representing peers at Students' Union meetings or course review boards, or extra-curricular activities, for example, useful, transferable skills acquired through a part-time job or as a member of a sports team. Barnett (2011:26) provides a classification of learning situations for university students that contains three key dimensions:

- *Within* formal study vs. *Outside* formal study
- *On-campus* vs. *Off-campus*
- *Accredited* vs. *Unaccredited*

Accreditation can be further divided according to whether the accrediting body is the student's university or an external organisation.

A Venn diagram can be used to plot a particular learning situation according to this classification (Figure 1). Using the diagram we can see that most activities that a (full-time) student undertakes as part of their degree would sit at the intersection of all three circles (point 1), activities such as field trips would be at point 2, and so on. The combination of informal, off-campus and unaccredited learning, a significant area of lifewide learning, would lie outside of all the circles.

Figure 1 Classification of lifewide learning factors based on Barnett (2011).



In contrast to learning derived from a formal programme of study, lifewide learning is highly individual because of the varied activities, environments and experiences of the learners. This aspect of lifewide (and lifelong) learning means that it is important for individuals to reflect on their activities and development in order to identify their learning, as a clearly defined and pre-determined set of learning outcomes is unavailable. In fact, Edwards, Ranson and Strain (2002:534) argue that "reflective self- and social questioning" should be seen as a fundamental element of lifelong and lifewide learning because it is this that allows the learner

to contextualise their development, both in terms of their own needs, growth and ambition and in terms of the wider community.

LIFEWIDE LEARNING AWARDS

Many UK universities offer students the opportunity to earn a lifewide learning award (see Barnes and Burchell this volume), such as the Royal Holloway Passport Award¹ the Greenwich Employability Passport², the Edinburgh Award³ and the Nottingham Advantage Award⁴. These awards recognise the contribution that extra- and co-curricular activities make to a student's learning and development.

The Hallam Award⁵ is a typical example of a lifewide learning award. It is offered to Sheffield Hallam University students by the local Student's Union, 'Hallam Union'. Students with some formal involvement with the Student's Union, such as course representatives, society committee members, etc., are eligible to apply for the award by providing evidence and reflection on how they have developed particular skills during the academic year. Involvement in Student's Union activities, co-curricular activities and external voluntary work can be used as evidence to support an application for an award. Towards the end of the academic year, students submit a portfolio of evidence along with a reflective report on their skills development for assessment.

The structure of lifewide learning awards varies between institutions (see Chapters in the B section of this volume). Some awards model academic programmes by requiring students to complete a specific number of 'credits' in order to receive their award. Others have multiple tiers to reflect levels of achievement. The Hallam Award, for example, uses the latter structure and has four levels of attainment (Bronze, Silver, Gold, and Platinum) with students receiving a particular level based on the quality of their reflection and skills development.

To complete the Hallam Award the students are asked to complete between 3 and 5 Key Skills Development activities which focus on a particular skill they have developed through engaging in voluntary work that academic year. These are then collated into a Final Report which reflects on their skills development and explains how these link to the student's future career.

Challenges

Many lifewide learning awards face a pair of related issues that can both significantly reduce the numbers of students completing the award and add a significant administrative burden to those involved in assessing students' submissions. The first issue is that many award schemes tie in with the academic cycle. This means that students generally need to submit their portfolio / application for an award at the end of the academic year at the same time as coursework deadlines and examinations. Clearly these will take precedence for most students



and so many students do not complete the requirements for the lifewide learning award. A second related issue is that the staff who assess students' submissions will often also have an increased workload at the end of the academic year because of their involvement in coursework and examinations. The challenge for award organisers is to devise methods that would allow more of the assessment burden to be spread more evenly across the academic year and/or amongst a wider group of people. The next section examines the way in which Open Badges might be used to address these challenges.

OPEN BADGE CONCEPT

Open Badges are digital tokens that can appear as icons on a web page or other online venue. Awarded by institutions, organisations, communities, groups, or individuals, badges signify accomplishments such as completion of a project, mastery of a skill, or gaining experience and developing through the process. Proponents suggest that these credentials herald a fundamental change in the way society recognises learning and achievement—shifting from a traditional books-and-lecture pedagogy to a model with multiple knowledge streams, including new media, collaboration, interest- and needs-based learning, and experience or project-based learning⁶. As records of achievement, badges can recognise the completion of projects within a traditional educational programme or acknowledge experience gained through personal experience, community interaction and contribution, online learning venues, or work-related projects. The idea that badges are 'open' is the fundamental principle on which the system is built. The infrastructure is open (anyone can become an issuer) and the technology is open (open source). Users control their own data and the system permits individuals to create their own badges which an issuer can endorse.

The Mozilla Foundation (2012) has championed the idea of Open Badges through open competitions and the Mozilla Open Badge Infrastructure (OBI)⁷. Using this model, a learner fulfils the issuer- specific criteria to earn the badge by attending classes, passing an exam or review, or completing other activities and demonstrating learning and achievements gained through these experiences. A grantor verifies that the specifications have been met and awards the badge, maintaining a record of it with attendant metadata. This metadata includes the issuer's name, the recipient's e-mail address, a link to the criteria, and a short description of the badge. It may also specify other details, such as the issue date, the expiration date, or a link to the evidence that supports the granting of the badge. The earner pushes the badge into a "backpack," a portfolio-style server account, where this award is stored alongside badges from other grantors. This badge repository might be the Mozilla-hosted Badge Backpack, or it might be a backpack hosted by any provider using the OBI specifications. Badge recipients using the Mozilla Badge Backpack can choose to keep their awards private or display some or all of them on selected websites, social media tools, platforms, or networks.

Each badge is based upon a distinctive image and is generally awarded for demonstrating specific learning achievements, such as understanding a particular topic or acquiring a



specific skill (Figure 2), or participation in specific activities. This is conceptually equivalent to the badges earned and worn by members of the international Scout Movement where a badge is a visual indicator that the holder has demonstrated knowledge, skills or experience that meets a set of defined, common criteria⁷. A significant difference, however, is that Open Badges contain information about the recipient, the issuer, the time of the award and, optionally, evidence for the award. For example, a badge issued by a rugby club to recognise a person's involvement as a coach for junior players might include a link to a video of a coaching session or testimonials from supervisors and players. Therefore, these features provide advantages over traditional methods of recognising achievement and participation by allowing interested parties to see the criteria for receiving a badge and verify that the badge was genuinely awarded to the person by the stated organisation.



Figure 2. Example of a badge for achieving development through a particular co-curricular activity

A person's badges are stored in an online collection, such as that provided by Mozilla's Open Badges Backpack, where the individual can curate them. The badges can be curated by their owner to organise them into clusters, which can then be made public, and shared with individuals and organisations or placed onto the person's social network profiles, such as Facebook and LinkedIn. This clustering concept allows individuals to tailor the information provided by the badges to particular audiences, such as showing different badges to different potential employers, and so present only a relevant subset of their learning and experience rather than overwhelming viewers with large amounts of unnecessary information and evidence.

A third party who receives a link to a badge or cluster of badges is able to access the information embedded within the badge image, such as the criteria and evidence of meeting those criteria. In addition, this viewer can also verify that the badge is genuine by automatically validating it with the original issuer. This means that, provided the issuer is trusted, then the badge can be reliably assumed to be legitimate, and so represent a genuine achievement. As a result of this verification ability, an Open Badge has a built-in level of credibility that may not exist in an equivalent paper certificate.

Research into student and staff perceptions of badges (Glover and Latif, 2013) has shown that students see significant value in the use of badges as a way to differentiate themselves from peers by highlighting their unique set of skills and experience. This would typically be when submitting employment applications; however, staff members stated that they would

find this information useful when, for example, deciding on whether a student is suitable for a particular dissertation topic or final project.

Open Badges have a clear application to lifewide learning and related initiatives (Sharples, et al., 2013). Though originally intended for use as a mechanism to recognise informal online learning, the free nature of Open Badges means that anyone, whether an individual or an organisation, can create and issue badges for any purpose. This means that learners can earn badges both as part of their formal studies and through their activity outside of that domain. For example, Figure 2 shows a badge that could be earned for completing a workshop at a university library related to information skills, and could go into an individual's

badge collection alongside badges demonstrating, for example, good customer service at a part-time job and volunteering at a local charity. This collation of evidence from disparate sources and the facility to curate unique sets of badges in order to present different views of a person's experience and achievements to different audiences are the key aspects of Open Badges that make them a suitable mechanism to support the recognition of lifewide learning and development. Collectively, the badges serve as both the evidence of development and a recording mechanism to support future reflection by the learner.

ACCREDITING PEER ASSISTED LEARNING WITH DIGITAL BADGES

Sheffield Hallam University has been investigating potential uses for digital badges since 2013 and has identified student co-curricular and staff continued professional development activities as having the greatest potential for positive impact. A project to incorporate badges into staff development activities began in February 2014; however, the next section provides an example of how badges have been used in our co-curricular Peer Assisted Learning Scheme.

Design considerations

Badges serve a number of purposes in Sheffield Hallam Peer Assisted Learning Schemes (PALS). It is primarily a means to accredit, acknowledge and reward skill development among unpaid student volunteers acting as PAL leaders. Here the students are involved in co-designing the scheme and running it in their own time. It is an adjunct to the course but formally unaccredited. The design of the badges is based on using best practice of previous PALS leaders. This uses student practice to model ways to develop the role in a way that is congruent with the broader aims of PAL (Wallace, 1996).

Underpinning the badges as a whole is the desire to acknowledge and accredit the contribution students are making to the PAL scheme. The importance of such recognition is noted in research into volunteerism where satisfaction with experience of volunteering is positively related to level of appreciation, similarly "burnout is less likely among volunteers who felt appreciated" (Kulik, 2007, cited in Wilson, 2012:197). As one of the PALS leaders expressed it, "we just want [the course team] to say thank you" (course review 2013). Badges



are one way to do this while distinguishing between different levels of commitment, acknowledging everyone's efforts while rewarding super-committed individuals.

Table 1 shows the general structure of the PAL Scheme and the badges that students earn as they progress through the scheme. The badges have been clustered to reflect the different levels of the Hallam Award from Bronze to Platinum. The purpose of these early badges (Badges 1 to 4) is to scaffold learner development (Vygotsky, 1978). The portfolio at this stage is a guide book, a reference point and a reflective journal for a novice student facilitator; it almost literally defines the 'zone of proximal development' (Vygotsky, 1978) for the new PAL leaders. Whereas the Hallam Award uses different levels of attainment to distinguish between the quality of their reflections and skills development, the PALS Awards use these levels to recognise different levels of commitment to the PALS scheme with higher levels representing higher levels of responsibility.

Table 1 PALS Portfolio Badges Contents list

	Badges	Requirements	
	1. PALS Commitment 2. Leader Training	PALS Expectations workshop 2 day PAL leader training	Both of these
PAL Bronze Award	3. PALS leader 4. Administrator	Facilitating 3-5 PAL sessions Record Keeping	Both of these
PAL Silver Award	5. Placement Mentor 6. Materials Designer 7. Recruitment 8. Training	Placement Orientation Materials Design Recruitment Training	Two of these
PAL Gold Award	9. Researcher 10. Presenter	Research & report Conference presentation	One of these
PAL Platinum Award	11. Author 12. Co-ordinator 13. Moderator	Journal Publication PALS co-ordinator PALS on-line moderator	One of these
	14. Creativity 15. Leadership		

The first two badges (Table 1), *PALS Commitment* and *Leader Training*, are compulsory for all and acknowledge the commitment to attending a workshop and two days unpaid training. The next two badges, *PALS Leader* and *Administrator*, allow expectations and minimum standards to be defined, setting out clearly what is required of a PAL leader. A major driver here is a concern with quality and consistency of the scheme as a whole. As we move beyond this with badges five to eight, there are more choices as to which badges to complete, and the definitions of the badges becomes increasingly open-ended.

There is a deliberate attempt to introduce language to describe individual skill development through the detailed requirements for each badge and in the writing prompts. The scheme itself offers students opportunities to develop skills in a low stakes context. Accreditation delineates the different skills for students and unpacks soft skills that are frequently lumped together as 'communication skills'. The questions used to promote reflection aim to get



students to articulate their contribution in a way that employers understand and value. This means reflecting critically on what they have learnt from their experiences as PALS leaders and developing their ability to articulate this objectively. Critical reflection is both a mandatory requirement for many of the professions studying at SHU and a desirable skill for our students as lifelong learners. The challenge for this portfolio is to work as a document that supports and fosters critical reflection, in effect scaffolding the shift from narrative and biography to critical reflection. The prompt questions are based on the premise that in order to write learning focused text, we first need to write with ourselves at the centre. Narrative is the means by which lived experience is captured and transformed. As Erben (2000:383) expresses it, 'Lives lived through time but made intelligible through narrative.'

Both the Hallam Award and the SHU PAL badges act as a means to promote reflection and capture an account of student learning. The way this is done is quite distinct; while the Hallam Award asks for an account of how extra-curricular activities developed a skill, each of the badges has a series of specific questions to prompt reflection on that particular activity. The questions in each of the badges move from descriptive account to analysis and reflection, from concrete - this is what we did - to the more analytical - this is what I learnt from this. They draw on Moon's work on reflection (2004) and McDrury and Alterio's (2001) work connecting narrative and storytelling to learning. This design of this series of badges also draws on the work of Tomkins (2009) who applied these frameworks to a peer mentoring context incorporating paired reflection and goal setting.

The badges serve a similar function. The goals are initially defined (though there is a shift to this becoming increasingly open ended). The structure and detail of each of the badges prompts the students to re-tell their stories and in the process begin making sense of their experiences. The badges are not simply more detailed. The inclusion of accurate description in each badge, beginning with a simple narrative or account is both the basis for accurate critique and allows the students to explore different interpretations and to reframe the same incidents in the light of later learning. In this way the badges attempt to support the process of learning and of learning through writing, through the year while the Hallam Award documents the result of this process.

The mode of presentation and digital nature of these badges also has some design implications and offers some pedagogical opportunities. The portfolio of badges has been designed to be applied to the PebblePad⁹ Personal Learning System and e-Portfolio platform, primarily for convenience of being able to access it at any time. This is a significant consideration for courses where students spend a high percentage of time off campus. PebblePad as a digital portfolio also allows students to integrate alternative sources of evidence and use different modes to capture their reflections on their learning. We are currently planning to explore submission of spoken reflections as part of a broader commitment to inclusivity and because the final context in which their work will be shared for many of our PAL leaders, is a spoken interview. These audio-based reflections could be included as evidence within a badge in the same way as the more traditional, written reflection.



DEVOLVING A LIFEWIDE LEARNING AWARD: A PROPOSED METHOD

The PAL scheme outlined above contains four levels of achievement that could be directly mapped to credits or levels in a lifewide learning award. In this situation, the organisation or individual that administers the lifewide learning award would validate the requirements of each level of the scheme against their own requirements for their award. This would lead to a mapping between the two, such as a Gold PALS award being equivalent to Gold level development of one of the skill areas in the Hallam Award. Through this mechanism, it would be possible for students to submit evidence, such as a badge or certificate, of attainment in a validated scheme in order to fulfil, in part, the requirements of the lifewide learning award.

This proposed method removes the need for students to duplicate their effort by having to demonstrate that they have met the requirements for both the validated scheme and the lifewide learning award. It would also remove the need for assessors on the lifewide learning scheme to undertake a detailed assessment of the student's submission in the area covered by the validated scheme. Instead, they would simply confirm that the evidence of completing the scheme is legitimate and apply the level of attainment set out in the original mapping between the scheme and the award. In the example, an assessor would check the student's Silver PALS award is genuine and then give the silver level for that aspect of the Hallam Award without needing to look at the detail of the submission.

CONCLUSION

Lifewide learning is becoming increasingly recognised as an important part of the university experience, as shown by the number of institutions with awards for learners undertaking extra- and co-curricular activities. However, as these become more popular the challenge for institutions is how to support learners to become involved in increasingly varied activities involving an ever-expanding number of organisations while ensuring that suitable learning and development has taken place. Learners face the problem of how to maintain evidence of their activities and ensure that the relevant information is available when submitting an application for an institutional award - particularly where that evidence has been gathered from a variety of different sources.

Open Badges can help alleviate these issues by providing a mechanism that allows learners to collate their evidence from multiple sources and easily share tailored subsets of the complete collection. They also enable institutions to verify that the badge represents both a suitable level of development / experience and was genuinely awarded to the learner. This makes the management of the evidence simpler for learners and the administration of the award programmes simpler for institutions. This could eventually lead to devolution of the award process where badges from particular organisations and individuals are rigorous and relevant enough that a valid badge can meet some or all of the criteria for the lifewide learning award. This would further make the overall process of applying for a lifewide learning award much simpler and make the administration of the award significantly more efficient.



A mechanism for evidencing lifewide learning based on Open Badges allows this evidence of achievement to be collated from numerous disparate sources and shared as a cohesive package. For example in the case study cited, this would allow PAL scheme badges to be submitted for a lifewide learning award alongside badges from other schemes, such as those from a student representative programme. The digital nature of the badges means that they, and the evidence they encompass, can be shared with multiple assessors simultaneously, leading to improved assessment and administrative workflows.

Open Badges represent a method to assist people to share a verifiable, holistic picture of their learning regardless of where that learning took place. Combined with the free-to-use nature of the technology, this means that Open Badges have significant advantages over other methods of recognising lifewide learning. Though the proposed devolved model would not be without some issues, particularly around trust, credibility and standards, it would provide increased efficiency for both the student and awarding institution. In turn, this would allow increased flexibility in the types of activities that could contribute to an award and, by reducing the burden on students, would potentially increase the number of students obtaining the award each year.

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END NOTES

- ¹ <http://www.rhul.ac.uk/studyhere/royalhollowaypassportaward.aspx>
- ² <http://www2.gre.ac.uk/about/schools/business/services/placement/gep>
- ³ <http://www.employability.ed.ac.uk/Student/EdinburghAward/> See also Chapter B2 this volume
- ⁴ <http://www.nottingham.ac.uk/careers/students/advantageaward/index.aspx> See also Chapter B1 this volume
- ⁵ <http://hallamunion.org/hallam-award/>
- ⁶ <http://blogs.lse.ac.uk/impactofsocialsciences/2013/12/16/moocs-open-badges-inflation-of-educational-credentialism/>
- ⁷ <http://www.openbadges.org>
- ⁸ <http://members.scouts.org.uk/supportresources/611/musician-staged-activity-badge/?cat=56,142&moduleID=10>
- ⁹ <http://www.pebblepad.co.uk/>

