Rewarding Student Innovations for the Enhancement of Learning with Digital Technologies

The purpose of this paper is to outline a proposal for the incentivisation of pedagogic innovation in TEL by staff and students in partnership. The paper is in two parts, the first setting out the rationale for the proposal and the second describing the proposal itself.

Part 1: Innovation through experimentation

The Technology Experimentation Group (TEG) was launched in September 2015 and has since run a number of informal, lunchtime workshops (twenty five to date) for students and staff in the Help Zone Training Area in the Headington Library in JHBB and on the Wheatley Campus. Known as 'lunchbytes', the workshops have featured hands-on demonstrations and explorations of new and emerging technologies not yet in mainstream use in higher education. They have been enthusiastically received by staff in a variety of roles, academic and professional, and by a small but growing number of students, mainly postgraduate. A selection of TEG sessions will be featured at the Brookes Learning and Teaching Conference in July and a further programme of lunchbytes is in the pipeline for the 2016-17 academic year.

The TEG embodies the principle of *creative appropriation* of digital technologies for the enhancement of the learning experience. Put simply, technology best enhances learning when its users are aware of its learning potential and are able to mould it to their purposes. This capability is often referred to as *digital literacy*. TEG lunchbytes enable us to develop our digital capabilities through experimentation with new technologies in an informal, low-risk setting, outside the operational constraints of the mission-critical business processes on which our students' learning experience relies.

It is one of the primary aspirations of Oxford Brookes' Technology Enhanced Learning (TEL) Framework 2015-20 that all staff and students should develop their digital capabilities by being encouraged and supported in appropriating technologies creatively for the enhancement of their learning. This capability is also one of the attributes which underpin the University's Student Experience Strategy, SESE. Passages in SESE emphasise the active, autonomous use of technology to shape the learning experience. For example, we should ensure that the curriculum is *"enriched by using technologies to* ***empower students' development as self-regulating, digitally literate learners, able to shape their own learning interactions and author their own digital artefacts"*** *(SESE2 3.5.5). Staff and students are encouraged to "****make active use of a wide range of digital media and learning tools*** *in order to develop* ***confidence and agility*** *with existing and emerging digital technologies" (SESE 3.8.3).*

To this end the TEL framework shifts the focus for development of digital capabilities from the consumption of digital content and services to the creation thereof, by both staff and students. Access to opportunities to develop these abilities, however, is not a level playing field for all members of the University. Extensive research into the learner experience of technology enhanced learning in the last ten years (ref.) has established that institutions have a duty to discharge in this respect. It is not sufficient to adopt a laisser-faire stance; the University must lead by example and, in order to do so as a collectivity, must ensure that all staff and students are supported in developing the necessary capabilities, both pedagogic and technical.

As ownership of affordable personal computing devices has increased and diversified, so have the pace and extent of technological innovation. Such is this richness that it has become all too easy not fully to appreciate the true learning potential of the devices in our pockets, homes and places of work. The TEL Framework provides some pointers as to where our priorities as an institution of learning should be.

Creative aspirations

The aspirations of all four of the domains of the TEL framework, learning, identity, community and place/space, are expressed in such a way as to emphasise that they should be attained 'through [staff and students'] own use of technologies and environments'.

Thus in the domain of **Learning**, we *"seek to enable students and staff to use information and communication technologies innovatively and creatively"* and to this end will *"provide learning environments utilising a wide range of ancillary tools and resources"***,** supported by *"a staff developmental programme for TEL based on the Brookes Attribute of Digital and Information Literacy."*

The second domain, **Identity**, aspires to *"enable transformative academic practice." by encouraging* academic colleagues to *"express themselves through academic multimedia"* and to *"'capture' digital content and produce academic multimedia for many purposes and audiences."*

Domain three, **Community**, stresses the fostering of *"learning communities and partnerships for scholarly discourse,"* particularly those which *"experiment with TEL within and alongside the curriculum."*

Finally, the domain of **Space/place** requires us to seek as far as possible to *"integrate physical and digital learning environments"* by assuring

- *"that TEL helps to provide equality of access, participation in and belonging to the Brookes community" … :*
- *"BYOD[1]/BYOE[2] for all staff, students and departments*

[1] Bring Your Own Device

- *“that all teaching locations where possible are virtualisable*

Taken together, these aspirations constitute a blueprint for the TEG, indicating many of the lines of enquiry that it may constructively seek to follow. Some of the aspirations are clearly more ambitious than can be achieved by the TEG alone but the TEG can make a positive contribution to them all.

Evolving support roles

Hand-in-hand with the emphasis on users as producers rather than consumers goes an evolution in our professional learning support roles. TEL advisory roles within the institution have tended to focus on supporting the use by academic colleagues of our digital learning environments, tools and services, through system administration, training and troubleshooting, resource management and dissemination of good practice (e.g. through the Learning Technologies Forum).

All of these services are essential for optimal use of TEL resources and will continue into the foreseeable future. In addition, however, our institutional aspirations for TEL suggest a more pro-active role for learning support staff, working in partnership with students:

- To demonstrate, evaluate and experiment with new learning technologies,
- To explore and research innovative pedagogies for the new generation of physically and digitally blended learning spaces (as embodied by the JHBB),
- To script and author new digital artefacts and applications (e.g. screencasts, interactive multi-modal learning ‘bites' using HTML5, javascript etc., mobile apps).

These forms of partnership are a response to the more mature understanding of digital capabilities, and of the institutional conditions in which they can prosper, that has emerged in the last decade and is reflected in the JISC digital capabilities model and in the JISC/NUS digital choices matrix. We have a good track record in this area, both locally and nationally, with the InStePP scheme and Student App competition being notable examples.

In the TEG we have a fledgeling structure through which to foster such relationships and thus to perform a central institutional function in achieving some of the TEL aspirations outlined not only in the TEL framework but also in SESE 2 and in elements of the PESE 2 project portfolio.

Space requirements

As it acquires dedicated equipment, the TEG will have need of dedicated space. In this regard, the TEG can be viewed as a test-bed for the relatively new concept, in the UK HE at least, of the *Makerspace*, an area devoted to the creation of new forms of making, whether these be for manufacturing, artistic, scientific or preservation purposes.

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[2] Bring Your Own Environment: As they move towards creative appropriation of technologies, individuals and groups may prefer to design and manage their own collaborative online environments, rather than use ready-made, institutionally supported ones.

A potential suitable space has been identified for this purpose, namely the Lloyd Training Room, in which the Digital Services Team, OBIS and others already carry out staff training activities aimed, amongst other things, at promoting digital capabilities.

Part 2: Rewarding Innovation

In the light of the above, this paper proposes a method by which pedagogic innovation in TEL by staff and students in partnership may be incentivised, in alignment with the aspirations of the TEL framework and SESE 2. It is proposed that the InStePP be re-launched with the addition of a competitive element and focus on innovation.

The InStePP partnership scheme ran successfully for four years between 2011 and 2015. It was positively evaluated as a form of partnership for TEL inasmuch as it yielded positive outcomes for both staff and student partners. For the former there was the achievement of a pedagogic enhancement to their courses through more expert use of technologies which they would otherwise have felt unable to achieve, for the latter a sense of pride in being given a role of equal status to that of their staff partners and a confidence boost in job interviews when asked for evidence of digital capabilities.

The scheme was voluntary: there was no financial incentive for working as an ePioneer, as student partners were referred to. ePioneers reported that pride in achievement and boosted confidence were reward enough. Though the evaluators stopped short of recommending payment, they did observe that the voluntary nature of the scheme was a contributing factor to the relatively low completion rates and limited its scalability. Another improvable element of the scheme was the somewhat random nature of staff requests for assistance (commissions), which it was felt tended to address lower order, practical issues rather than attempt potentially transformative TEL innovations.

InStePP did not run in the academic year 2015-6 for lack of administrative support. In the author's opinion, however, the adoption of the TEL framework, with its emphasis on creativity and innovation, may have created favourable conditions for a re-launch of a modified version of the scheme. The modifications will respond to the perceived limitations of voluntary student participation by introducing the incentive of competing for a prize, and will encourage staff and students to focus on pedagogic innovation with technology. The working principles of the scheme, having been tried and tested, should remain unchanged and are therefore not discussed in this paper.

We should aim to re-launch InStePP in September 2016. There is an immediate opportunity to announce the re-launch to staff at the upcoming BLT Conference on 4th July. This can take the form of inviting expressions of interest to be followed up in early September with a formal

introduction to commissioning for interest parties. The scheme should run for a minimum of one academic year followed by a review. Staff/student partnership projects (commissions) should be completed within this time frame to be eligible for a prize.

Focus on pedagogic innovation

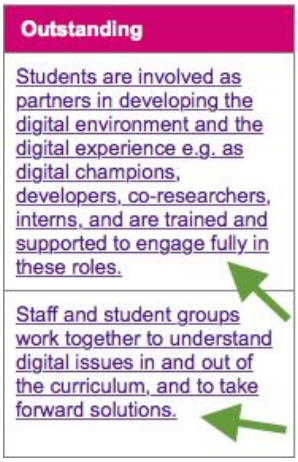
The TEL implementation group is making use of the JISC/NUS digital choices matrix as a tool to guide staff towards transformative innovation in their use of technologies for learning. A number of good practice principles in the matrix place high value on the active engagement of students in enabling propitious institutional conditions for the development of digital capabilities. Below are some examples, though the list is not exhaustive:

Principle 3: embed digital capabilities into courses of study

Principle 4: prepare students for digital workplaces

Principle 5: provide access to excellent digital learning content

Principle 9: communicate with students about their digital experience



Principle 12: foster digital well-being

Staff seeking to engage with student partners in introducing TEL innovations will be guided towards these principles when submitting partnership proposals. Proposals will also be invited from students.

Rewarding student engagement

The major change envisaged for the relaunched scheme will be in this area. As well as having the opportunity to work as equal partners with staff and to apply for the Future Consultants award, students will be offered the chance to win a prize for the successful completion of the most pedagogically innovative commission of the year. Student and staff partners will be eligible

for prizes together, to reflect the value placed on partnership. It is proposed that, at least initially to encourage participation, the top prizes be in the form of digital technologies recently introduced to the market with potentially wide appeal. Such a choice is designed to create a strong association of the scheme with innovative use of technology, while not weakening the primary driver of pedagogic innovation. At the time of writing, a very suitable candidate would be a 360º digital camera, a small number of which have been purchased by OBIS for use by the TEG. An award ceremony should be held to showcase the achievements not only of the winning partnerships but of all participating partnerships. The ceremony could be integrated into the programme of events that will make up the PESE 2 project 'Festival of Learning'.

Students leading TEG

Further to emphasise the value placed on student-led innovation, students and staff will be invited to lead TEG workshops showcasing their projects. These can take place while, as well as after, working on commissions, in order to encourage completion.

Focus on transformative learning not on technology

The author considered other forms of competition in preparation of this paper, which reflected an early concern to show return on investment in equipment purchases. For instance, that students might be invited to submit the results of their experimentation with the equipment purchased by TEG for consideration for a prize. While such experimentation is highly desirable and will be encouraged, it should not, in the author's view, be the sole criterion for the award of a prize. It is important that the experimentation be set in the context of pedagogic innovation.

It will be necessary to confirm with the Careers Centre and OCSLD that the conditions still pertain for student participants in the scheme to be able to apply for the Future Consultants award, endorsed by the Institute for Leadership and Management. In the past this has involved the provision of consultancy training and mentoring of ePioneers by Careers and OCSLD staff.

Winning partnerships will be encouraged to take their ideas forward to national fora such as the JISC Summer of Student Innovation or other national events.

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