

Learning about new tools: a Case study of Digilab and Digiquests

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Abstract

This paper examines an innovative approach prototyped to deliver staff development at The Open University (OU). The Digilab creative space was built within The Open University Library for staff to engage “hands on” with technologies which have the potential to enhance learning, both for experimentation and for familiarisation.

Initially users were encouraged to explore the technologies at their own pace in the Digilab, but a survey of OU staff carried out in 2007 indicated that whilst in the main staff embraced the idea of working with new technologies, many lacked the confidence to tackle using them without support. As such, structured experiential activities to support staff in developing their skills have been developed.

‘Digiquests’ are supported by a mixed team of elearning professionals from academic and academic related backgrounds. These quests require staff to navigate their way through technology themed topics using a variety of accessible devices and immersive environments to support reflective learning, the main objective being maximising hands-on experimentation. The resulting activities form a suite of self paced and collaborative opportunities to encounter some of the key issues, constraints and possibilities for developing technology enhanced experiential learning for learners and practitioners within a safe, informal and neutral space. Shorter, self-paced ‘digibytes’ have also been developed. Participation in Digilab activities is steadily increasing, and in addition to the original aim, of developing the skills of academic staff, a number of additional uses of the space have been realised.

Feedback has been positive, indicating that participants appreciate the nature of the space, the opportunity to interact with the technologies provided there, and recognise that the experiences help support new ways of thinking about technology.

The Digilab team will continue to work closely with other units to integrate our hands-on activities into the university’s staff development offerings. The Digilab is also increasingly being used by course teams and developers to test course materials on different platforms, such as mobile phones and game consoles, or to explore the integration of technology enhanced learning into course models.

Keywords

Staff development, Experiential learning, Peer support, Technology enhanced learning

Introduction

With strong institutional drivers to adopt new media and online technologies for teaching and learning it has become imperative that staff are comfortable with the use of a range of tools. While many staff may welcome these new ways of working, others are anxious about it and we need to seek ways of ensuring that they can use new tools effectively. This paper describes an innovative approach to introducing new technology to staff in a

purpose built room at the Library. We describe the establishment of Digilab and the use of Digiquests, exemplifying an approach to a learning environment for staff which provides opportunities for supported experimentation with new tools.

Staff attitudes to technology

We know that professional development needs to be relevant and situated within the context of the individual before innovations are likely to be adopted. We are also aware that while staff may be enthusiastic to learn about new technology, they may not be confident enough to know how to use it for teaching and learning, and appreciate opportunities for informal learning “on the job” with their peers (see for example Knight et al 2006) .

These observations are borne out by a more recent survey of Open University staff in 2007 in which 8% of all staff participated, which showed that overall 77% of respondents were willing to engage with technologies for enhancing learning (Figure 1), but many lacked the confidence to do so on their own (Figure 2). It was also found that whilst in general staff owned a wide variety of devices (Figure 3), they often made limited use of the functionality offered – for instance mobile phones were primarily used for texting and calling, but not for calendar management or web browsing.

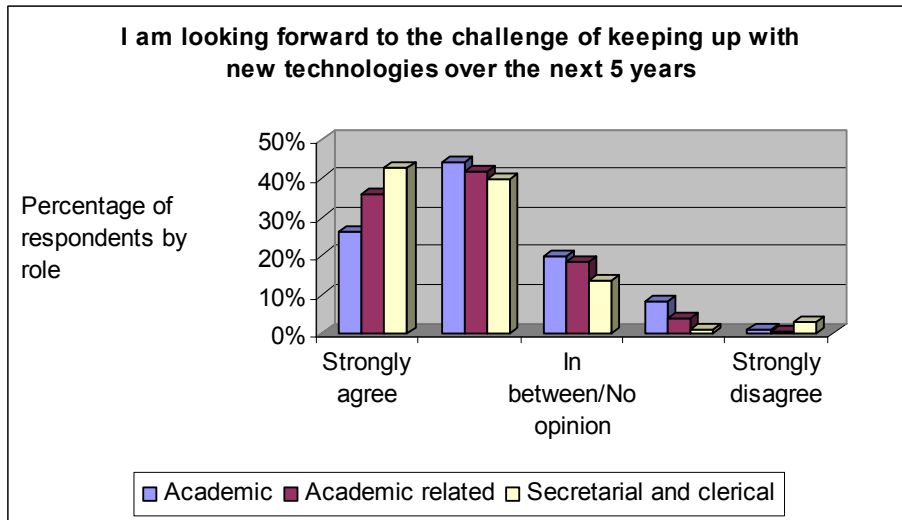


Figure 1: Staff attitude to technology

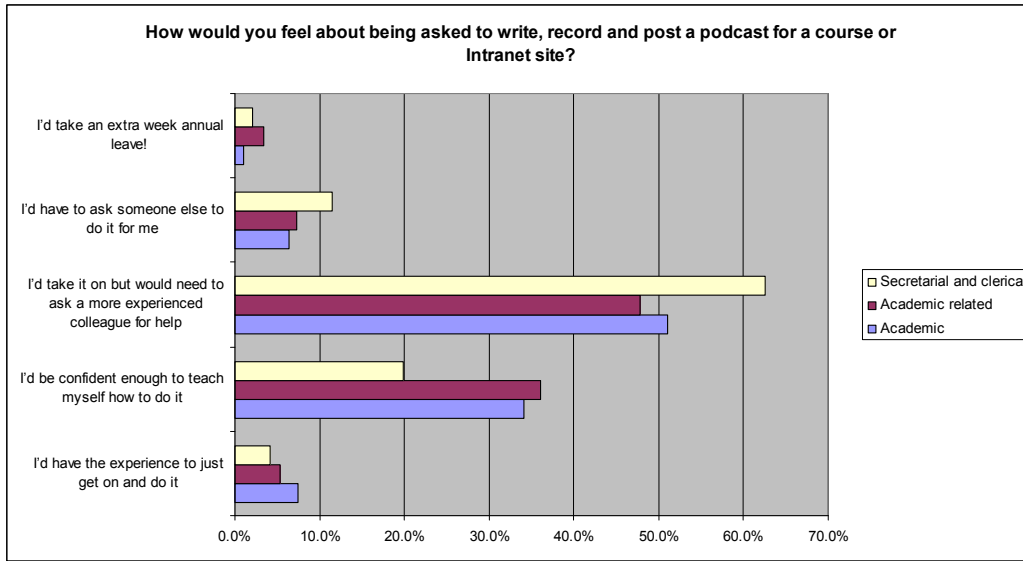


Figure 2: Staff confidence in creating a podcast

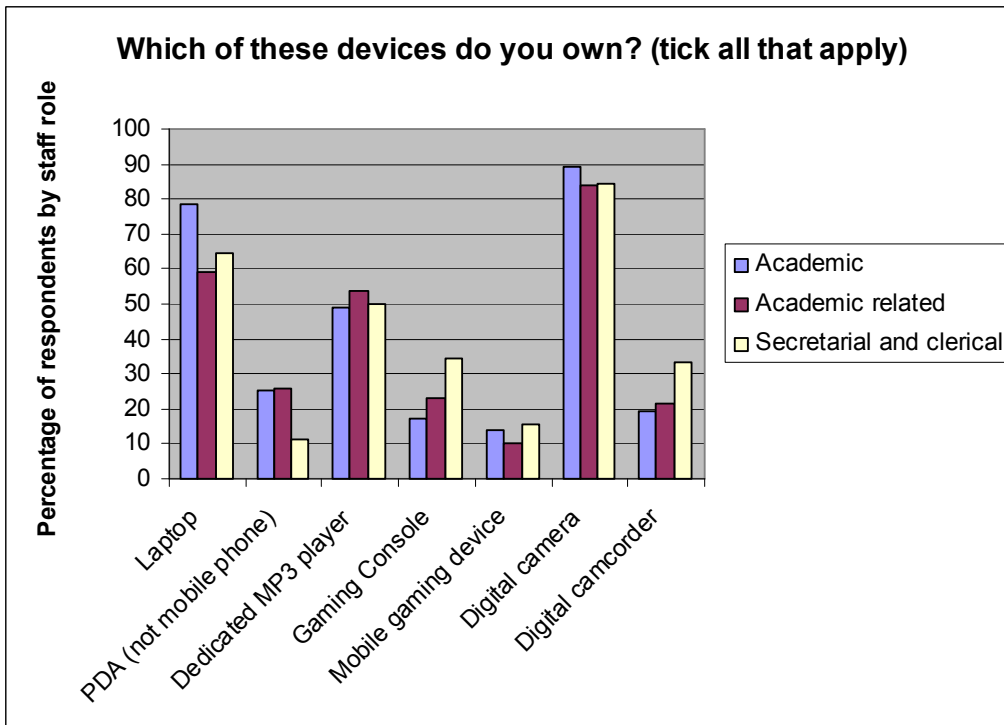


Figure 3: Staff ownership of commonplace devices

The Open University's (OU) Digilab

Although staff development on the theory and pedagogic value of technology enhanced learning has been available for several years at the Open University it became apparent that there was a need for a non-threatening place for people to experiment with technologies. As such, the OU Digilab (<http://www.open.ac.uk/digilab>) was established. It aims to provide a neutral, comfortable and colourful creative space within which staff can

familiarize themselves with technologies with the potential to enhance learning. Digilab provides both a physical and virtual presence for staff to share and experiment first hand with a range of technologies and ideas for learning. Funding to establish the Digilab was received in 2006 as a result of a successful collaborative bid submitted by The Open University Library and three partner units within the university.

When the facility and web presence were first established, the Advisory Group were asked to develop and design a new type of flexible and colourful physical environment to encourage informal and relaxed learning experiences and experimentation with technologies. The space is currently zoned into four main areas to help orientate visitors and users: Mobile Technologies; Immersive Worlds; Games Based Learning and Podcasting. The choice of equipment and the content covered in Digilab activities are heavily influenced by the New Media Consortium's annual Horizon Reports (Johnson et al, 2007) and by The Open University's Learning and Teaching Strategy. Other types of creative learning spaces, like The Teaching Grid (University of Warwick, 2009) and InQbate (2007) have also been established in recent years, sharing common ground with Digilab in that they aim to provide spaces which encourage the use of new technologies, and to support staff. The Digilab team visited the Media Zoo (Media Zoo, 2010), at Leicester University to better understand the issues, successes and constraints relating to support and use of these types of initiatives.

The Digilab philosophy: peer learning in a safe environment

Initially the Digilab was a simple drop-in space. Induction and support were available on request, but users were encouraged to explore the equipment for themselves. This continues to be our philosophy but the 2007 survey showed that some respondents were not comfortable with experimenting with technologies without support. We believe this is because staff appreciate the opportunity to learn with their peers, and prefer to set aside time for an event, rather than being given an open-ended invitation for self study. After running several trial workshop sessions we also found that some staff were more inclined to use the space after attending a facilitated workshop. Anecdotal evidence suggests that some staff do not feel justified in going into the Digilab during working hours unless it is for an arranged event because they are afraid it will not be seen as a productive use of their time by their managers.

The core target market for Digilab was academic staff. However, other staff have taken to using the space regularly, both for exploration of technologies which are unfamiliar to them and for experimental development of course materials in different media.

Moving on: structured learning through Digiquests and Digibytes

In order to facilitate exploration and experimentation a range of guided activities have been trialled in the form of Digibytes and Digiquests. Digibytes are short self paced activities for example how to use your smartphone to capture images or video for potential assessment purposes and share through online microblogging services. More intensive and rich experiential Digiquests have also been developed and offered as half-day to full-day collaborative workshops. Data gathered from the original staff survey informed the types of activities designed and offered in the Digilab. For example Digiquest participants are encouraged to produce a podcast or video reflecting on what they have learned during the workshop. The primary aim is to encourage participants to get hands-on with a selection of technologies in a supported environment.

The aim of all Digilab activity has been to ensure that participants get as much time as possible hands-on with the technology, while being given sufficient context and support to be able to make sense of how particular technologies might or might not be useful in their particular area of work. Each Digibyte or Digiquest has clear learning outcomes. The activities which have been developed are based on constructivist learning approaches. There is a definite element of risk taking and exposure to unfamiliar as well as to familiar technologies. This has prompted mixed reactions from participants. In order to ensure balanced participation by Digiquesters, staff are encouraged to mix roles within each group exercise and each group is allocated a facilitator to try to encourage balanced participation and experimentation by each staff member. The following two examples illustrate one of the Digiquests we have developed.

Example 1: Overview of Digiquist on theme of ‘Navigation’

Subjects for exploration:

- Mobile Learning & Smartphones
- eBooks
- Podcasting
- Second Life

Key things to focus on around technology investigations are:

- What are the potential navigational issues for users?
- What are the potential solutions?
- What are the implications for students using the technology for learning?

Each team will be given a list of tasks and together they will complete each task, all the while noting down what challenges they face and how they were overcome.

A facilitator will be allocated to each team to guide and help as necessary.

Example 2: Activity undertaken as part of Digiquist on theme of Navigation

1. Visit a “learning space” of your own choosing on campus.

Use the JISC criteria supplied below to reflect on how your chosen space effectively match these criteria.

JISC Report (2006) Designing spaces for effective learning. A guide to 21st century learning space design. HEFCE. Available from,

[<http://www.jisc.ac.uk/media/documents/publications/learningspaces.pdf>]

The design of individual spaces needs to be:

- **Flexible-** to accommodate both current and evolving pedagogies
- **Future-proofed-** to enable space to be re-allocated and reconfigured
- **Bold-** to look beyond tried and tested technologies and pedagogies
- **Creative-** to energise and inspire learners and tutors
- **Supportive-** to develop the potential of all learners
- **Enterprising-** to make each space capable of supporting different purposes

Try to reflect on what type of learning is best supported within your chosen learning space and what types of technologies are supported or encouraged for use e.g. individual/group work; quiet/active; use of audio/video; laptop/mobile devices. What types of learning and technologies do you see learners actively using irrespective of the space’s intended use?

2. Capture evidence that can support your reflections by using **the image and video recording functionality** available on your mobile device.

3. Experiment in using the MMS (Multimedia messaging) functionality on your device to send your data to the mediaBoard and participate first hand in mobile blogging. Send your MMS or email to MLearn.digilab@mboard.co.uk.

Uptake and use of Digilab

We have seen a steady uptake of the Digilab service since its implementation. To date we have run eight Digiquests and numerous Digibytes over the course of three years.

In addition to the core target academic audience for Digilab activities, staff based in non-academic units, such as Human Resources, have also exploited the Digilab to gain insight into new types of skills and technology possibilities required to meet the expectations of our existing and future learners. The Human Resources team who used the Digilab for initial experimentation purposes have a particular remit to develop staff training sessions and they wished to bring themselves up-to-date with technologies which could be used in this context. The team have since developed an award-winning immersive training area in Second Life, used to support teaching staff with practical advice and guidance on how to give and receive feedback.

Collaborative partners have also been using the space to brainstorm new ideas and initiatives, deliver training sessions on a variety of topics, demonstrate the use of Second Life for educational purposes, prototype new service developments for mobile learning services and share the learning from conferences. Library staff have been using the space to develop service-based videos and are planning to create instructional vodcasts to help customers make use of the services and facilities available both in the physical building and online.

The highly personalized approach means that the development of each workshop is quite resource intensive. Groups generally comprise 12 participants with between two and four facilitators. Those participants who admit openly that they are 'technology shy' are given individual attention and support to overcome their fears at 'playing' with the resources and devices on hand. By completion of the activities they are often the most enthusiastic participants and become regular users of the space, introducing other colleagues to the opportunities available to them to explore and inform themselves.

Feedback

There has been no negative feedback on any of the sessions delivered to date and only constructive comments on how elements of the programme could be improved for future sessions. For example where activities have been developed requiring participants to physically find 'experts' on technology enhanced learning topics at the Walton Hall campus through using GPS enabled devices or smartphones, many participants felt that this was too time consuming and preferred the experts to come to them within the Digilab space.

Several iterations later we have now developed a series of exercises which seem largely successful in introducing staff to technologies outside their 'comfort zone' in a non-threatening manner. One aspect of our method is making use of more confident technology users within each team to support their peers. Participants have commented that the informal environment encourages them to ask questions they might otherwise be reluctant to ask for fear of sounding 'stupid'. To achieve this it is important that the facilitators emphasise their own learning journey with the technology and do not appear overly confident or condescending in demonstrating how to use it.

Comments from staff show that they appreciate having access to a space designed for informal learning:

The room is very valuable – primarily because it is a relaxed place to meet with people and talk about interesting things. I have only really used it as a meeting room – when I want to encourage free-flowing creative discussion – or just want folk to relax. I am sure that the design of the room encourages a different sort of discussion cf formal meeting rooms. The availability of interesting kit and relaxed meeting facilities ... certainly encourages folk to congregate there – helping with the sharing of good practice and ideas.
Senior Lecturer

The Digilab rejuvenates thinking. Discussions there quickly identify superior approaches not appreciated in more formal settings... To prosper in the modern world you must understand the tools

available- the Digilab is a gateway to those tools.....The modern student does not work in isolated silence, but works surrounded by tools, technologies and distractions. Digilab helps understand how they work
Interactive Media Advisor

Similarly, they appreciate having access to the technology, and being able to try it out for themselves:

I like the drop in nature of it so you can just pop in whenever you need to...It really helps...to know what kind of technology is out there that isn't just pc based. I tested several of my websites on a Playstation3, Nintendo Wii and PDA, something I would never had the opportunity to do....despite them being fairly common technology for home users.
Media Developer

..... if we want to start looking at newer technologies, then there are places in the university that have got hold of these technologies, but it's quite difficult for most people in the university to get into those projects and find out about them and then also get a hands-on experience with those devices. So having something here, which could be booked out and can also be part of a hands-on activity, which has then got some follow-up activity, that's one of the strengths of the Digilab and that's something that I hope that we can move forward with.
Project manager

It is difficult to assess the impact the Digilab has had so far on course design, but feedback shows that it does inspire new thinking and a focus on the ultimate student experience:

A very useful day. It was useful to have an overview of how the particular type of technology could be used in our courses and then to have some time set aside to actually play with the technology.
Academic

I think we tend to get a bit isolated; the Digilab inspires and reminds us that real users will be interacting with our work
Academic

In terms of the wider institutional impact, a cross-university group of staff who had contributed to developing and facilitating workshops in the Digilab received an Open University Teaching Award in 2008. This award was given in recognition of the impact made by the Digilab in raising awareness of the possibilities and constraints relating to technology enhanced learning.

Future directions

Staff supporting and using the Digilab work continue to work within the broader Open University eLearning Community's network of academic staff, learning design experts and media practitioners to develop the Digilab service further. The comments we have received on what would encourage them to make more use of the Digilab often relate to time, expert help and support indicate that staff would like more time to experiment and engage with ideas and technologies in order to be more reflective in understanding their use and constraints when developing learning:

I thought it was very interesting and I wish I'd had the time to explore further what was on offer and think in more depth about how the technologies which it showcases can help us improve our teaching materials

They also require a recognized level of expert help and support to make the most efficient use of that time in order to ensure the most effective experience:

Most of the value came from the lady who was on hand to discuss the technology. I would suggest that this usefulness could be extended if events were held there to demonstrate and discuss specific topics. Perhaps this is already available on request

The rich experience offered by the collaborative development design and delivery undertaken through the Digiquest model is one example of how this might be achieved given adequate resources and strategic backing within an organizational context. The lessons learnt since the inception of Digilab will be used to inform future developments, as Digilab and the Digiquests are now mainstreamed as a part of the university's professional development provision.

Conclusions

Organisations need to understand the level of commitment and resource required to support staff in developing new types of digital media competencies and confidences. The bewildering array of new devices and functionalities released every day exercises even the most confident amongst us. We need to allow staff the space and time in which to undertake 'serious' play with these technologies so we can move teachers and learners forward in terms of innovating and developing fully interactive, participative and creative experiential learning.

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