

Briefing paper 1:

## **Learning Technology: Key Implications for Educational Developers**

### **Report of a career development study of learning technology staff in UK higher education (HE)**

A national study was commissioned by the JISC<sup>1</sup> to provide an in-depth audit and review of staff roles and activities associated with the embedding, development and support of learning technology in HE. The study team also investigated patterns of staff recruitment and deployment across the audited institutions, relating these to critical institutional factors. Recommendations for further study and strategic focus by the JISC and guidelines for institutions on staff recruitment, deployment and development for effective support of Information and Communications Technology (ICT) for learning and teaching were also included. Whilst there are constant changes in emphasis within this fast-moving area and many institutions are now focusing on e-Learning or managed learning strategies, the findings and guidance resulting from this study are still very topical and will be relevant to all those who work with learning technology within HE.

This paper describes:

- Why this study is important to you and how you can make use of it
- The different elements of the study and details of key findings
- How opportunities afforded by learning technology are changing people's roles
- The characteristics and needs identified for these staff
- How learning technology is changing HE institutions (HEIs) and what support is now required
- Key implications for educational developers
- Future information and support

#### **Why the study is important to you**

The study set out to examine how many people are currently working with learning technology in HE in the UK and to identify their roles, skills and needs. It therefore provides a snapshot of the current state of learning technology roles and contexts within the UK HE community. From this, a number of roles have emerged, amongst which is the role of educational developer. This briefing paper is designed to present the key findings for this audience alongside issues and recommendations which will assist with staff development for effective support of the use of ICT for learning and teaching.

Throughout the paper there are questions and issues for you to reflect on. These are designed to help you in turn to ask the right questions and identify who and what can help to move things forward for you and your institution.

#### **Why study learning technology staff?**

Thanks to a series of national funding initiatives, UK HE is among the world leaders in the development of the Internet and the accumulation of electronic resources (NCIHE 1997<sup>2</sup>, JISC 1999<sup>3</sup>). However, the same information revolution is now challenging many of the traditional functions and structures of the sector. The agenda for using e-Learning or learning

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<sup>1</sup> The Career Development of Learning Technology Staff Scoping Study was carried out between June 2000 and January 2001. It was led by Helen Beetham and a team from the Universities of Plymouth, Bristol and Glamorgan. Since then, follow-up work has been undertaken to make both the findings and methodology more widely available to the HE community.

<sup>2</sup> National Committee of Inquiry into Higher Education (1997) *Higher Education in the Learning Society* (the Dearing Report), HMSO/NCIHE.

<sup>3</sup> Joint Information Systems Committee (1999) *Adding Value to the UK's Learning, Teaching and Research Resources: the Distributed National Electronic Resource (DNER)*: [http://www.jisc.ac.uk/pub99/dner\\_vision.html](http://www.jisc.ac.uk/pub99/dner_vision.html)

technology in HE is no longer a simple matter of disseminating new tools to teachers. Learning technology threatens to change us, as well as promising to help us manage the change going on around us. It is the staff working within this area who will be at the forefront of such changes.

### **Five studies in one**

The study consisted of a number of distinct but overlapping studies, including studies that focused on individuals, designed to provide a rich picture of the diverse, multiple and emerging roles within this increasingly active area of learning and teaching, together with investigations into the institutional context of learning technology work. The studies were:

- A role analysis of 35 diverse individuals
- A series of in-depth case studies with 17 individuals, chosen from four representative HE institutions (HEIs)
- An audit of 23 institutions
- An analysis of patterns of staff recruitment and deployment across the audited institutions, relating these to critical institutional factors
- Senior manager and stakeholder interviews at four representative institutions

### **Learning technology roles**

The role analysis identified 11 distinct roles, though these did not correspond with actual divisions of labour among individuals, many of whom were carrying out multiple roles. The case studies identified three categories of individuals with a distinctive range of roles for each type: 1. *new specialists*; 2. *academics and established professionals*; and 3. *learning support professionals*.

The *new specialists* included the roles of educational developer, educational researcher, technical researcher/developer, materials developer, project manager and general learning technologist. In practice, these roles were rarely carried out in isolation, with most individuals having responsibilities across at least two different areas.

*New specialists* tended to be:

- Multi-skilled and peripatetic, but with learning technology at the core of their professional identity
- Generally in their twenties or thirties
- On fixed-term contracts, often supported by external funding
- Typically in their current post less than two years and at their current institution less than four years
- Working at a strategic level in terms of building links across the institution
- Members of a range of working parties or committees (especially educational developers)
- Involved in delivering some form of staff development via workshops, accredited programmes and training courses or less formal modes of skill transfer

From our institutional audit we conclude that UK HEIs employ just less than 2,000 such staff with a specific remit for learning technology.

The *academics and established professionals* were academic staff working with new technology (academic innovators) and academic managers with secure positions in the institutional infrastructure. We found that about 10% (8,000 UK-wide) of all academic staff in departments could be classed as innovators, and this percentage was remarkably consistent across institutions. Established professionals are a much smaller group (around 1,000 UK-wide). In a minority of cases the established professional was an academic librarian or educational developer.

These professionals tended to be:

- Older than the *new specialists* and had usually been at the same institution for at least six years

- Working at a strategic level or in a facilitative role across different parts of the institution
- Holding managerial responsibility, but rarely for more than three staff

We conclude that there are around 9,000 such individuals in UK HE – that is *academics and established professionals* who are working to embed learning technology into their professional activities and into the everyday practices of their institutions. They are an essential resource for their institutions, but they also form a client group for the services of staff in the other two categories.

The *learning support professionals* were staff in non-academic roles, specifically technical support professionals, library/resource professionals and ICT skills professionals, who were taking on more responsibility for supporting access to learning technology. Some learning skills support staff were also included in this category.

- These professionals are likely to be in the early part of their careers, without managerial or strategic responsibilities
- Unlike *new specialists*, they did not regard learning technology as the defining focus of their professional identity but as a significant area of attention
- They were likely to have a client services orientation, though they also described their role as ‘cascading skills’ to others in the institution, both through formal training responsibilities and through an informal approach to the development of colleagues

We estimate that there are currently around 4,500 individuals employed across UK HE, but their numbers are rising as learning technology becomes an increasingly significant aspect of the learning environment.

### Activities and skills

The role analysis identified 58 different activities or roles in the coordination, development, use and support of learning technology. On average, participants carried out at least 20 activities as ‘core’ or ‘central’ to their role, and a further 20 ‘regularly’ or ‘occasionally’, indicating competence in an extraordinarily wide range of areas. The following table indicates the ten most commonly identified areas, in descending order of importance. Case study participants also confirmed these findings.

Key Activities
1. Actively seek to keep abreast of developments in learning technology
2. Facilitate access to learning technology expertise and services
3. Liaise and collaborate with other units in the university having related interests and objectives
4. Act as consultant, mentor or change agent for other staff
5. Advise and assist with introduction of new technology into learning and teaching programmes
6. Increase colleagues’ awareness of best practice in learning technology
7. Enable exchange of ideas and experience in technology-based learning and teaching
8. Facilitate and support access to computer-based learning resources
9. Consult with support staff on appropriate use of learning technology
10. Identify needs and opportunities for development/deployment of learning technology

The following points summarise the findings on activities and skills:

- All participants gave technical skills a lower priority than interpersonal and pedagogical skills in carrying out their current role

- Institutional managers also reported that technical skills were less important – or easier to recruit and develop – than an awareness of pedagogical issues and an ability to work effectively in academic culture
- Other skills which were important for *new specialists* and *established professionals* included:
  - Management, project management, information management and in particular online information skills
  - Strategic organisational and networking skills
  - An ability to develop other people
- *New specialists*, to a lesser extent, also required ‘traditional’ academic skills such as research, publication, course design and teaching

### **Professional development needs**

Staff in the study were identified as classic ‘lifelong learners’ who needed to undertake continuous professional development to remain competent in a rapidly changing area of expertise. In addition it was found that:

- *Academics and established professionals* had far more development opportunities than the other categories of staff, typically in-house workshops on learning-technology use and external conferences or briefings related to their ‘established’ profession
- Half were undertaking formal professional development of some kind
- The institutional audit confirmed that staff development events which integrated pedagogical with technical skills were available at just under 60% of institutions and that a similar percentage incorporated learning technology into their new lecturers’ programme
- Comments suggested that this staff development activity was being increased and enhanced, and in some cases formalised through accreditation
- *New specialists* were concerned with issues of career progression, academic legitimacy and professional identity
- The most significant need expressed by these staff was for ‘time’ to undertake professional development, particularly for the exploration of new technology (both to find out ‘how it works’ and to ‘gain a vision of what it can achieve [in learning and teaching]’)

#### **Typical comments on professional development needs:**

*“I was told when I turned up here that I had a half day a week personal development time, which kind of gets spread out to five minutes here and there. There’s an ongoing learning role...”*

*“There’s no time. Every time I go to a conference I think this is the stuff I’d really like to get my teeth into, but you get back into the office and...it’s just firefighting.”*

*“[In my team] we learn from each other really fast and we’ll ask each other... ‘how can we cut through this?’ because we don’t have time [for formal training]”*

*“There aren’t standard courses available. So what you do is, it’s learning on the job, contact with others working in the field. There are no manuals, there are no courses, so the most important is communication with others.”*

### **Institutional Issues**

#### **Possible indicators of good practice**

In the audit study, institutions with nationally recognised centres of learning technology were all found to have the following:

- Good collaborative networks, internally and with other institutions
- Targeted support for teaching staff to integrate learning technology into their courses
- Department/service teams with their own local planning to meet strategic aims

- Specialist learning technology development teams within computing services
- A requirement on programmes of study to address student ICT skills
- A requirement on departments to demonstrate pedagogical research/scholarship of teaching

### **Supporting institutional development**

The shift of emphasis away from the development of stand-alone computer-based learning programmes and towards the use of more generic tools within managed learning environments undoubtedly requires a shift in institutional support and investment. The focus-group discussions and audit findings identified the following areas where this support should be focused:

- Educational and curriculum development (especially in departments and programmes)
- Development of integrated systems, informed by the needs of learners and learning and teaching staff
- Staff and student access to resources, both centrally and in departments and programmes
- Integration of learning technology into the physical learning spaces of the institution (eg data projectors, electronic whiteboards etc)
- Adaptation of learning spaces and maintenance of new facilities to ensure maximum access, and maximum benefit from technology

### **Supporting staff development**

The following recommendations relate to the steps institutions should be considering to support staff in these new roles:

- *New specialists* need to undertake continuous professional development to remain competent in a rapidly changing area of expertise. Their most urgent requirement is 'keeping abreast of current developments in learning technology', which demands:
  - Time, especially for self-directed and peer learning, reflection, experimentation
  - Opportunities to share expertise with colleagues in other institutions
  - External training and development opportunities
  - Encouragement in cascading these skills to others through their own involvement in staff development
- *Academic innovators* need to acquire integrated technical pedagogical skills if learning technology is to be embedded into their teaching practices. Accreditation should also be investigated and implemented.
- Mechanisms for supporting the institutional learning and teaching community to develop its collective expertise are needed, for example through:
  - Secondments
  - Internal publications
  - Networks of departmental representatives
  - Teaching fellowships
  - Internal partnerships and collaborations
  - Email lists and bulletin boards
  - Workshops, awaydays and events (eg a technology week, a resource-based learning term)
  - Mentoring and co-mentoring across departments and teams

### **Key Implications for Educational Developers**

Learning technology is moving to the centre of institutional strategies, particularly learning and teaching strategies, and mission statements. Learning technology staff are also proactive in cross-service networks at the organisational centre of institutions. However, learning technology work is marginal in terms of the practices and cultural values of (most) academic departments. There are a number of interrelated issues specifically for educational developers:

- **Merging roles**

*New specialists* were perceived by all the groups involved in the study as the 'true' learning technologists: multi-skilled and peripatetic but with learning technology work at the core of their professional identity. Focus groups described the archetypal learning technologist as 'an educational developer with a learning technology specialism'. Senior managers, along with focus groups confirmed that educational development or 'embedding learning technology into the curriculum' was seen as the primary task for most institutions.

*Educational developers have a critical role to play in supporting and facilitating the new specialists to acquire the core educational development and "change agent" skills needed to assist in this process. However educational developers must also ensure that they acquire skills in learning technology in order to be effective in supporting these new methods.*

- **Academic legitimacy**

This was particularly an issue for educational developers, researchers and general learning technologists in our study, several of whom felt that learning technology needed to establish itself as an academic discipline or sub-discipline if their work was to achieve credibility.

*How should this be supported both institutionally and nationally?*

- **Professional identity**

Institutional auditors tended to identify learning technology staff with projects or short-term initiatives rather than specific locations, often working across institutional boundaries. Educational researchers, general learning technologists and project managers proved to be particularly mobile and peripatetic and educational developers regarded their role as necessarily 'nomadic'. However, educational researchers, general learning technologists and technical support professionals tended not to be members of institutional bodies and seem to be more susceptible to feelings of marginalisation.

*New specialists need support to develop this professional identity in a constantly changing arena – how can educational developers encourage this?*

- **Working with innovators**

Our focus groups concluded that once a specific technology is rolled out across an institution, the focus of the *new specialists* moves from supporting use per se to supporting innovative, pedagogically effective use, which allows a new set of 'innovators' to emerge. Conflicts can arise when the new specialists try to hand over the support of mainstream technology to other categories of staff in the institution.

*Educational developers will be very familiar with this situation and will need to investigate the facilitation of this 'hand over' and how this can best be achieved.*

### **Read on...**

This briefing paper can only serve as an introduction to the study, which is large and wide-ranging. A series of briefing papers has been prepared to present the most relevant findings to different audiences. It is recommended that you obtain all the briefing papers in order to obtain a comprehensive overview of the impact of the study and its findings.

### **Other briefing papers available**

Briefing paper 2: Learning Technology: Key Implications for Learning Technology Staff

Briefing paper 3: Learning Technology: Key Implications for Managers of Learning Technology Specialists and Heads of Personnel

Briefing paper 4: Learning Technology: Key Implications for IT Services Staff

Briefing paper 5: Learning Technology: Key Implications for Library Staff

Briefing paper 6: Learning Technology: Key Implications for Academic Staff

Briefing paper 7: Embedding Learning Technology Institutionally (ELTI): Using the ELTI Audit Tools

Senior Management Briefing Paper: Embedding Learning Technology Institutionally

### **Institutional audit tools**

In addition to the briefing papers, the original audit tools used in the career development study with a full training pack and comprehensive guidance notes are available.

Copies of the full report, briefing papers and audit tools are available from:

<http://www.jisc.ac.uk/careers>

### **Further information and support**

For further information and details of institutional support for undertaking an audit, please contact Sue Timmis at the Institute for Learning and Research Technology, University of Bristol at:

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