

## **ANALYSING THE ROLES, ACTIVITIES AND SKILLS OF LEARNING TECHNOLOGISTS: A CASE STUDY FROM CITY UNIVERSITY LONDON**

Olivia Fox and Neal Sumner  
City University London  
United Kingdom

### **Abstract**

This paper reports on a case study carried out at City University London into the role of Learning Technologists. This paper examines how the role developed, by providing points of comparison to a report on the career development of learning technology staff in UK universities in 2001. This case study identified that Learning Technologists undertook diverse roles and acquired the skills to work in different communities (professional, academic and research). It also found that while the core role and activities of Learning Technologists were similar to findings in 2001, the changing context in which they operated added complexity to the role and impacted on the skills and experience required.

### **Introduction**

It is widely recognised that Higher Education (HE) is undergoing a profound transformation due in part to the impact of technology (Barber, Donnelly, & Rizvi, 2013). As Christensen (in interview with Myers, 2011) argued, technology has a disruptive impact on the provision of Higher Education and threatens the existing models on which it is based. Although claims that these changes are revolutionary may be exaggerated, there can be no doubt that educational technologies and the staff that support them are increasingly important in the design and delivery of Higher Education (HE) both nationally and globally. However, have the roles, career structure and influence of Learning Technologists developed to recognise the centrality of technology in the provision of Higher Education?

What follows is a case study exploring the activities and skills of Learning Technologists at City University London (City) to ascertain if the roles, activities and skills of Learning Technologists at City had changed since Beetham, Jones, and Gornall's 2001 national survey identified the roles and functions of "new specialists" (p.4) employed in UK Higher Education (HE). Beetham et al.'s study investigated the role and functions of staff involved in supporting learning and teaching through the use of Information and Communication Technology and identified 11 roles in this area. These roles were divided into three categories. The category of "new specialists" was used as a benchmark for this study as Beetham et al. (2001, p.4) found that these staff had "[...] learning technology work at the core of their professional identify." Six roles were identified in the "new specialist" category:

- Educational developer
- Educational researcher

- Technical researcher/developer
- Materials developer
- Manager (a. Projects, b. Team)
- Learning technologist

Beetham et al. (2001) noted that these were not distinct roles and that staff was likely to carry out composite roles.

### **Rationale**

Browne and Beetham's (2010, p.23) "open review"<sup>1</sup> on the role of Learning Technologists in enhancing the student learning experience recommended repeating the Beetham et al. (2001) study to examine what activities Learning Technologists were undertaking and with whom they worked. It was an appropriate time to carry out this research at City as the number of staff engaged in learning technology support increased substantially with the launch of the Strategic Learning Environment (SLE) project in 2008. This project supported the student experience through a range of online and classroom learning technologies (Quinsee & Bullimore, 2011). It funded six School-based Project Resource Officers in 2009 with a role in "[...] managing change and engaging staff in the use of new technologies to support the educational mission of the University" (Learning Development Centre, 2009, p.3). In addition, there were School-based Learning Technologists with strategic responsibility for implementing learning technology (Quinsee, 2010). Seven staff based centrally at the Learning Development Centre (LDC) also supported learning technology development (Learning Development Centre, n.d.).

### **Literature Review**

The findings of a literature review highlighted that Learning Technologists worked in a hybrid role between the academic and professional fields. They occupied a role that was contradictory (Oliver, 2002). Learning Technologists had a central role in supporting change in HE, but their role was often marginalised and sometimes precarious. This was initially through short-term contracts (Beetham et al, 2001; Gornall, 1999) and then through feelings of insecurity due to a lack of career structure (Shurville, Browne, & Whitaker, 2009) or concern over possible redundancy (Browne & Beetham, 2010).

The role undertaken by Learning Technologists transformed from one of a change agent at individual or project level (Beetham et al., 2001) to that of a change manager with responsibility for strategic level initiatives (Browne & Beetham, 2010). It is unclear, however, if all Learning Technologists undertook a change manager role; Armitage et al. (2004) indicated that only some Learning Technologists undertook this organisational-level role. The activities undertaken by Learning Technologists aimed at engaging academic staff in relation to using technology effectively to support their teaching remained core activities. Some literature pointed to a fragmentation of the role of the Learning Technologist (Conole, 2004; Hudson, 2009).

On the issue of specialisation in the role, there was some evidence of this (Cope, 2011, 2012), but also evidence that the role was expanding to

encompass new activities, including support for researchers (Peacock, Robertson, Williams, & Giatsi Clausen, 2009). In line with its organic development, the role has remained varied and somewhat ill defined with no consistency in job titles (Hudson, 2009; Oliver, 2004). Interpersonal skills were required to engage with academic staff (Beetham et al., 2001; Browne & Beetham, 2010; Ooms, Burke, Linsey, & Heaton-Shrestha, 2008; Oliver, 2002; O'Neill, 2010). Technical knowledge was also important with the development of enterprise-level systems and the expansion of technologies that were used to support the delivery of teaching and learning. Pedagogical skills were required to engage with the academic community and Learning Technologists viewed these skills as longer lasting than technical skills that needed constant updating (Browne & Beetham, 2010). To engage with the research community and to ensure that new technical developments were evidence-based, research skills became increasingly important (Armitage et al. 2004). For those Learning Technologists occupying a more organisational-level role, leadership skills were also required to support organisational planning and implementation (Kowch, 2005; Marshall, 2010; and Shurville et al., 2009).

### **Methodology**

The study used mixed methods to research a comprehensive account (Bryman, 2010) of the role and activities of Learning Technologists. A questionnaire was used to get an understanding of the breadth of roles and contexts of Learning Technologists at City. The online questionnaire was followed with semi-structured interviews as a qualitative tool to elaborate on the questionnaire responses (Green et al., 1989 cited in Bryman, 2006).

### **Questionnaire**

Data from Beetham et al.'s (2001) initial role analysis was used in the questionnaire to provide points of comparison for this new study. The questionnaire included questions around the following areas:

- Role and responsibilities
- Activities and skills required
- Professional development and career progression
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Of the 22-strong research population, 77% responded to the questionnaire. The quantitative data from the questionnaire was analysed using the reporting features within the survey tool – Bristol Online Surveys – that produces descriptive statistics. Open-ended responses were included in the qualitative analysis.

### **Interviews**

Fourteen respondents indicated that they would like to participate in a follow-up interview. A stratified sample was used to select participants to ensure a representative sample from across the University. Seven Learning Technologists were interviewed and, to get a longitudinal and expert perspective on the development of the role of the Learning Technologist at

City, a long-standing member of staff was interviewed. The interviews were conducted in April and May 2012. Interviews lasted between 30 minutes to 90 minutes and each participant was asked at least 13 questions. The qualitative data was analysed following Bryman's four-stage model of qualitative analysis (Bryman, 2008, cited in Gibbs, 2010). Interviewees are represented in this study with a code (P for participant followed by a number selected at random and not in the order in which they were interviewed; the expert interviewee is represented as EI).

## Findings and Discussion

This section presents and explores the integrated results of the questionnaire and semi-structured interviews on the role, activities and skills of Learning Technologists at City.

### Role of Learning Technologist

Questionnaire respondents were asked to describe their role using Beetham et al.'s (2001) "new specialist<sup>2</sup>" roles. Like the "new specialists," Learning Technologists at City did not undertake one role in isolation, but engaged in a variety of roles as they were involved in the "holistic" approach to learning technology from implementation to support and use (Beetham et al., 2001, p.31) as depicted in Figure 1.

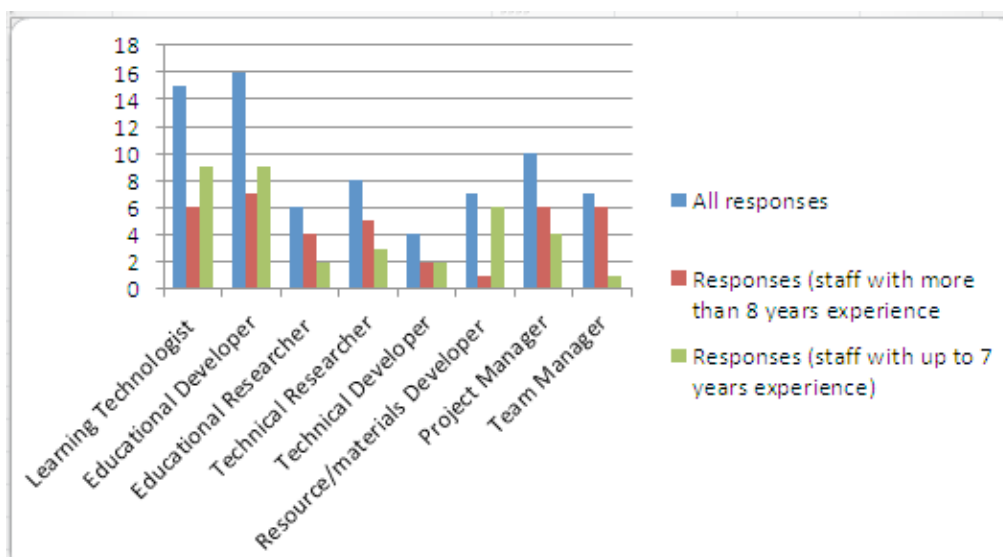


Figure 1: How would you describe your current role? (Multi-option answer).

Participants discussed undertaking a range of different responsibilities during the interviews. While describing a typical working day some core tasks were identified – these fell into three categories:

- Learning technology support
- Project work
- Research and evaluation

### Development of the Role

Responsibilities of Learning Technologists differed depending on length of time in the profession (Figure 1) and, while there was no set career path, there

appeared to be progression to the role of Team Manager and/or Project Manager. Respondents who worked in the learning technology field for at least eight years (n= 7) were more likely to have the role of Team Manager (n=6), with responsibility for leading teams and implementing local strategy (Figure 1).

Browne and Beetham (2010) underlined how supporting and managing change had transformed from supporting individuals with change (Beetham et al., 2001) to supporting organisational change, while Armitage et al. (2004) stated that this role was only undertaken by some Learning Technologists. Hudson (2009) found that, while newcomers to a learning technology/educational development role did not have the same level of responsibility as more experienced colleagues, they still discussed their role as strategic, and Learning Technologists without a Team Manager role spoke about their role in supporting the implementation of a VLE, not just for individual members of staff, but implementing a system across a School. Said one:

It was more of a change management role, so moving from one system to another with staff training [...] producing training materials, doing support on the new system and managing that transition. (P5)

The level of organisational change undertaken by staff who were not Team Managers could be due in part to the devolved decision-making structure with the introduction of the SLE where "[...] ownership of the pace of change [was given] to the schools" (Quinsee & Bullimore, 2011, p.284). It is worth noting that the role in supporting change was included in the job description for staff employed to implement the SLE (Learning Development Centre, 2009). This represented a change from advertised job roles analysed by Oliver (2004) and Wright and Miller (2000) where change management was not included.

### **Activities**

The stem and options for the question on activities undertaken by Learning Technologists were based on results from Beetham et al.'s (2001) original findings. Beetham et al. (2001) published the top ten activities that were rated as crucial or significant by over 50% of their sample. These activities were scored as crucial or significant by over 50% of the questionnaire respondents at City. During the interviews, participants discussed how relationship-building with different groups of staff underpinned their activities and the enabling activity of *facilitating access to learning technology expertise and services* was rated as most important to this community of Learning Technologists.

### **Multi-competence Required**

The hybrid nature of the role meant that Learning Technologists needed to develop the skills to be effective in each of the communities in which they operated (Armitage et al., 2004). Interpersonal skills were highlighted as crucial or significant to 100% of the questionnaire respondents and were a theme in the interviews. Technical skills ranked lower than interpersonal or

pedagogical skills in Beetham et al.'s (2001) study, while in this study, pedagogical and technical skills were rated equally (88.2%) by respondents.

The increase in the number of learning technologies supported could explain the increased rating for technical skills. EI said that Learning Technologists needed practical experience of a range of learning technologies in comparison to the technical skills required in early 2000 when Learning Technologists could have "[...] a vague interest in IT." There was some contextualisation around the technical skills required during the interviews. P7 thought that it was the ability to signpost staff to someone with the relevant technical skills rather than developing the technical skills yourself that was important. P2 said that, while Learning Technologists did not need to be "super IT expert[s]," they needed to have a conceptual understanding of learning technologies to understand what they could and could not achieve. The amount of learning technologies supported and the practical experience of learning technology required led to discussions around the tension between innovating and supporting institutional systems. This tension was discussed by four of the Learning Technologists at City, and a keen desire to innovate was discussed by three of the interviewees (P3, P4 and P5).

Beetham et al. (2001, p.29) discussed the importance of pedagogical skills, but also stated that technical skills were important "to professional credibility," and Hudson (2009, p.199) agreed that technical skills were part of Learning Technologists' "cultural capital." Drawing on the work of Becher (1989), Hudson said that keeping up with developments in the field was an important part of developing and maintaining a reputation in the field. This was illustrated by P6 who discussed the skills of another Learning Technologist in using social media effectively, "I'm learning from him, it's given me more of an emphasis to do a lot more immediate feedback, because I know he is really good at doing Twitter."

### **Research skills.**

Research and evaluation skills were noted as skills for the future in Beetham et al.'s (2001) report. Ten of the questionnaire respondents in this study indicated that they had a role in research (either as a Technical Researcher (n=4), an Educational Researcher (n=2) or both (n=4)), while research skills were noted as relevant to all respondents. During the interviews, all participants highlighted the importance of promoting their research into the impact of learning technology both in terms of raising the profile of learning technology at City and to develop City's reputation with an external community. For a number of participants, however, research was a secondary role or had to be done in their own time due to the more pressing demands of the role.

### **Development of leadership skills.**

Stiles and Yorke (2006) highlighted that the process of learning technology development became more complex with enterprise-level solutions. Kowch (2005) said that leadership was required to enact strategic planning as opposed to operational planning and that this was beyond the current practice of Learning Technologists who had more experience of project planning. Project

management skills were the second most highly rated of the skills of Learning Technologists in my questionnaire. Leadership skills were not included in the questionnaire, as this area had not been highlighted as a skill in the Beetham et al. (2001) study. However, the institutional implementation of learning technologies has seen a demand for something more than project management skills. Eight of the questionnaire respondents were participating in a Collaborative Leadership Programme. EI explained that the aim of this programme was to help staff manage and lead projects when they were in positions of responsibility, but did not have organisational power. Five of the interviewees discussed their development as part of this course. They highlighted the positives as learning about how to work as part of a team and understanding their own strengths, developing an understanding of why people work differently and how to work with them effectively.

### Conclusion

This research study has identified some changes to the general context in which Learning Technologists operate. "First generation" (Conole, 2004) Learning Technologists needed to have a "vague interest" (EI) in learning technology. As Learning technologies became mission critical to institutions and the processes around their implementation and use more complex (Stiles & Yorke, 2006), this has impacted on the role of Learning Technologists, which has, in turn, become more complex to support a large variety of institutional and social media. The skill-set and experience required has expanded, so, like Beetham et al.'s (2001) "new specialists," interpersonal skills and pedagogical skills were important, but practical technical experience is now required across a range of learning technologies (EI). At City, it was identified that, in some cases, leadership skills were required to communicate and engage with a variety of staff to implement organisational change. All of the participants described their role as playing a part in school-level change; this could have been distinct to City due to its decision to devolve the rate of change of the SLE project to Learning Technologists in Schools. Interviewees reported a tension between supporting institutional technologies and innovation, particularly the recent impact of social media in Higher Education.

In other ways, the role has remained similar to that described by Beetham et al.'s (2001) "new specialists." The role at City was described as a hybrid role - Learning Technologists acted as brokers (Armitage et al., 2004; Beetham et al., 2001) between professional and academic communities and developed the skills to gain legitimacy within these communities. As Learning Technologists tried to develop and maintain a reputation within these communities, opportunities to develop both technical and pedagogic skills were important. The ability to engage different groups of staff was key, which was why interpersonal skills rated so highly among participants in the study. In City, at least, there has been no fragmentation of the role (Conole, 2004; Hudson, 2009) between researchers and practitioners, and Learning Technologists have recognised the importance of research into the impact of learning technology. However, this activity often has a lower priority than activities around learning technology support and project management or co-ordination. While there was no clear career path, there was some career progression for Learning

Technologists to the role of Team Manager, but there were concerns about what progression was available beyond that. Given the profound, technologically driven changes that are sweeping through the Higher Education sector, how will the career paths, skills and opportunities for learning Technologists change in response to the challenges ahead?

### Notes

1. Literature review sourced by and shared with the learning technology community for discussion on the themes.
2. Combinations of roles presented by Beetham et al. (2001) were separated in the question options to avoid confusion.

### References

- Armitage, S., Bryson, M., Creanor, L., Higgison, C., Jenkins, M., Ringan, N., Newland, B., Prescott D., & Yip, H. (2004, April). Supporting learning technology: Relationships with research and theory. *Proceedings Networked Learning Conference 2004*. Lancaster University UK. Retrieved from [http://www.networkedlearningconference.org.uk/past/nlc2004/proceedings/symposia/symposium1/armitage\\_et\\_al.htm](http://www.networkedlearningconference.org.uk/past/nlc2004/proceedings/symposia/symposium1/armitage_et_al.htm)
- Barber, M., Donnelly, K., & Rizvi, S. (2013). *An avalanche is coming: Higher education and the revolution ahead*. London: Institute for Public Policy Research.
- Beetham, H., Jones, S., & Gornall, L. (2001). *Career development of learning technology staff: Scoping study*. Final Report for the JISC JCALT. Bristol: University of Plymouth. Retrieved from <http://www.jisc.ac.uk/publications/reports/2001/cdssfinalreport.aspx>
- Browne, T., & Beetham, H. (2010). *The positioning of educational technologists in enhancing the student experience*. Report funded by The Higher Education Academy under their Call4: Enhancing Learning and Teaching through the use of Technology. Retrieved from [http://repository.alt.ac.uk/831/1/Tom\\_Browne\\_Helen\\_Beetham\\_HEA\\_finalweb.pdf](http://repository.alt.ac.uk/831/1/Tom_Browne_Helen_Beetham_HEA_finalweb.pdf)
- Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research*, 6(1), pp.97–113. Retrieved from [www.socsci.uci.edu/ssarc/sshonors/webdocs/Integratingqualandquant.pdf](http://www.socsci.uci.edu/ssarc/sshonors/webdocs/Integratingqualandquant.pdf)
- Bryman, A. (2010). *Conducting mixed methods research Pt.1, 2, &3 w/ Alan Bryman*. [YouTube videos] Retrieved from <http://www.youtube.com/watch?v=0lZ3w8pKyJI>
- Conole, G. (2004, April). The role of learning technology practitioners and researchers. *Proceedings Networked Learning Conference 2004*. Lancaster University UK. Retrieved from <http://www.networkedlearningconference.org.uk/past/nlc2004/proceedings/symposia/symposium1/conole.htm>
- Cope, J. (2011, 15 December). The Research Technologist Part 1: Proactivity and innovation. *eRambler*, [web log comment]. Retrieved from <http://erambler.co.uk/blog/the-research-technologist-proactivity-innovation/>



- Cope, J. (2012, 10 January). The Research Technologist Part 2: Research focus. *eRambler*, [web log comment]. Retrieved from <http://erambler.co.uk/blog/the-research-technologist-research-focus/>
- Gibbs, G. (2010). Part 1: Bryman's 4 stages. Online QDA Website. Available from <http://onlineqda.hud.ac.uk/movies/Coding/index.php>
- Gornall, L. (1999). "New professionals": Change and occupational roles in Higher Education. *Perspectives: Policy and Practice in Higher Education*, 3(2), 44-49.
- Hudson, A. (2009). *New professional and new technologies in new higher education? Conceptualising struggles in the field*. Umeå: Umeå University. Retrieved from <https://discovery.dundee.ac.uk/handle/10588/5144>
- Kowch, E. G. (2005). Do we plan the journey or read the compass? An argument for preparing educational technologists to lead organisational change. *British Journal of Educational Technology*, 36(6), 1067-1070.
- Learning Development Centre. (n.d.). *Our Staff*. Website page. Retrieved from <http://www.city.ac.uk/about/education/lcdc/about-us/our-staff>
- Learning Development Centre. (2009). *Educational technology project resource officer*. (City University London job description - hard copy available on request) London: City University London.
- Marshall, S. (2010). Change, technology and Higher Education: Are universities capable of organisational change? *ALT-J Research in Learning Technology*, 18(3), 179-192. Retrieved from <http://www.researchinlearningtechnology.net/index.php/rlt/article/view/10762>
- Myers, C.B. (2011, 13 November). Clayton Christensen, Why online education is ready for disruption now. *TheNextWeb* [web log comment]. Retrieved from <http://thenextweb.com/insider/2011/11/13/clayton-christensen-why-online-education-is-ready-for-disruption-now/>
- Oliver, M. (2002). What do Learning Technologists do? *Innovations in Education and Teaching International*, 39(4), 245-252.
- Oliver, M., Farmer, R., Duggleby, J., Jennings, D., Kay, D., & Hughes, G. (2004). *Consultation with learning technologists, employers and sector representatives on the development of an accreditation scheme*. Association of Learning Technology (ALT) Accreditation project report no. 3 Retrieved from <http://web.archive.org/web/20050211125346/http://www.ucl.ac.uk/calt/alt-accreditation/>
- O'Neill, G. (2010). Initiating curriculum revision: Exploring the practices of educational developers. *International Journal for Academic Development*, 15(1), 61-71.
- Ooms, A., Burke, L., Linsey, T., & Heaton-Shrestha, C. (2008). Introducing e-developers to support a university's blended learning developments. *ALT-J Research in Learning Technology*, 16(2), 111-122. Retrieved from <http://www.researchinlearningtechnology.net/index.php/rlt/article/view/10890>
- Peacock, S., Robertson, A., Williams, S., & Giatsi Clausen, M. (2009). The role of Learning Technologists in supporting e-research. *ALT-J Research in Learning Technology*, 17(2), 115-129. Retrieved from <http://www.researchinlearningtechnology.net/index.php/rlt/article/view/10869>

- Quinsee, S. (2010). *Moodle@City*. Retrieved from <http://prezi.com/uk0l-ok3f5ht/moodle-city/>
- Quinsee, S., & Bullimore, A. (2011). Creating the strategic learning environment at City University London. *Campus-Wide Information Systems*, 28(4), 275–288. Retrieved from City Research Online <http://openaccess.city.ac.uk/575/1/Quinsee-Bullimore-Bolton-FinalRevised.pdf>
- Shurville, S., Browne, T., & Whitaker, M. (2009). Accommodating the newfound strategic importance of educational technologists within higher education: A critical literature review. *Campus-Wide Information Systems*, 26(3), 201-231.
- Stiles, M., & Yorke, J. (2006). Technology supported learning – Tensions between innovation, and control and organisational and professional cultures. *Journal of Organisational Transformation and Social Change*, 3(3), 251-267.
- Wright, A. and Miller, J.E. (2000). The educational developer's portfolio. *International Journal for Academic Development*, 5(1), 20-29.

**Author Details**

Olivia Fox

[Olivia.fox.1@city.ac.uk](mailto:Olivia.fox.1@city.ac.uk)

Neal Sumner

[n.sumner@city.ac.uk](mailto:n.sumner@city.ac.uk)