

This paper draws on a JISC report, *Thriving in the 21st century: Learning Literacies for the Digital Age*, which explores examples of learning literacies provision in UK further and higher education.

The nature of work is changing, not just for the growing numbers of graduates directly employed in the 'digital' industries. According to the recent e-skills report 'Technology Counts', an estimated 77% of UK jobs involve some form of Information and Communications Technology (ICT) competence, requiring skills to be updated as technology changes.

Opportunities for learning are also changing and by most measures becoming more numerous and openly available. Open educational content is growing through several high profile initiatives.

The nature of knowledge is changing, so that what counts as useful knowledge is increasingly biased towards what can be represented in digital form, and/or applied to immediate problems and situations.

The texture of social life is changing, with more and more people conducting and sustaining relationships via digital media.

Literacy practices are changing. Writing has moved from a paper-based to a largely screen-based medium. Associated searching and editing software has profoundly changed the way in which writing is typically constructed. Increasingly images and video are also used to access and communicate knowledge.

Unless these forms of literacy practice are being actively developed by institutions and teaching teams, learners will struggle to reach their full potential. The UK economy will be hampered by a lack of high-level skills and a dearth of future capacity. The promise behind initiatives such as open content, high speed research networks and personalised learning environments will fail to be fulfilled. The future demands skilled, digitally-aware learners with the capacity to participate in learning throughout their life, using technologies of their own choosing.

'Education can play a role in influencing future cultural and social practices with technology.'

Against this background of change, the practices of colleges and universities, and the capabilities of their graduates, are under critical review. It seems likely that the challenges outlined above can be met by changes in the kinds of capabilities valued, taught and assessed by colleges and universities, and the ways in which learners' capabilities are supported and assessed. The value colleges and universities place on digital literacy and the investment they make in staff and student skills must be reappraised.

Reviewing current practice

JISC supported the Learning Literacies for a Digital Age (LLiDA) project to:

- Review the evidence of change in the nature of work, knowledge, social life and citizenship, communications media and other technologies, in the context of learning
- Review current responses to these changes from the further and higher education sectors

The project has collected substantial original data (available online) concerning current practice in literacies provision in UK further and higher education, including 15 institutional audits and over 40 examples of forward-thinking practice. Based on this, and on the body of existing research evidence, LLiDA offers a set of recommendations for institutions to consider as they examine their own provision and support in this area.

By engaging with real examples of academic and learners practices we have provided compelling evidence of how effective digital learners develop and can be supported.

Why learning literacies for a digital age?

Our understanding of learning literacies encompasses the range of practices that underpin effective learning in a digital age. The phrase learning literacies for a digital age expresses the tension between literacy as a generic capacity for thinking, communicating ideas and intellectual work – that universities have traditionally supported – and the digital technologies and networks which are transforming what it means to work, think, communicate and learn.

Institutional strategy for learning literacies

We found that learning and digital literacies are rarely the basis of an integrated institutional strategy, due to lack of clear ownership at the institutional level. However, there are a few examples of integrated approaches.

Effective integration can be provided where the learning and teaching strategy addresses learning in the digital age directly, and there are clear lines of action and responsibility to other strategies such as IT, quality, employability, e-learning, learning resources and devolved faculty/department and service-level strategies. A digital literacies champion could be empowered to act in both the digital and the academic/learning development area of institutional provision. Whatever their current strategic priorities, institutions should position themselves to respond quickly and flexibly to the need for new kinds of capability, and to recognise and represent graduate capabilities in new ways. This requires the collaboration and engagement of management, central services and academic departments and aims to embed academic information and digital literacy skills in learning and teaching across the university.

Practice in central services

Our study found consistent good practice in central provision for the three areas of academic/learning literacy, information literacy and ICT skills. Staff in these areas have their own well established cultures, frameworks and forums for sharing professional practice. In many cases these cultures include a focus on learners as individuals, with their own preferred approaches and particular needs. The main problem is staff are still operating in relative isolation from one another, in many cases, even within their own departments. Students' digital and learning literacies are not being assessed and supported often enough as they engage in academic tasks. It is also seldom acknowledged that students have many sources of support, including family,



friends, social networks and online resources, but that they need help to integrate these into effective personal practices.

We suggest that librarians and staff supporting IT, careers, widening participation, accessibility and learning development need better opportunities to learn from each other as the nature of successful study changes. There is background evidence that literacies transfer poorly across boundaries, a finding that makes joined-up support all the more critical.

Strategies often call for cross-departmental working; we identified good integration in some places between information and IT support, and in other places between academic practice and information literacy. Support is most effectively integrated where there is an institution-wide policy of assessing and progressing learners' skills. In further education this is usually delivered through guidance tutorials, while in higher education the availability of an e-portfolio system can be the catalyst and focus of provision.

Practice in the curriculum

We identified three common approaches to integrating literacies within the curriculum:

- An institution-wide programme (usually portfolio-based) with generic processes of review and reflection, but the specific skills practised and assessed in subject modules

- Skills modules or module components, delivered alongside 'subject' teaching, typically by central services staff; this may include tailored (subject-specific) tasks or examples
- Literacy provision fully integrated into modules and/or programmes of study, including learning outcomes and assessment: typically in professional/vocational programmes that are already competence-based (but in one case via the tutorial system)

Where skills are delivered as separate components there is a danger they will not be seen as central or compulsory elements of the learning experience. While tailored versions of central service workshops are undoubtedly better than no provision, course teams are advised to rethink learning tasks and assessment criteria to give more importance to literacies for life across the curriculum.

A cluster of examples focused on students rethinking concepts of space, and working on the boundaries of real and virtual spaces to express their ideas. This is an exciting development, but we are concerned to find few other examples of radical thinking that address disrupted concepts of knowledge, identity or practice. There was also very little evidence in our study of feedback on coursework or assessment being used to support learners' development, eg to signpost resources the learner might access or study strategies to practice.

The great majority of our examples came from vocational and professional courses, and there is a growing body of evidence that these are the subjects spearheading support for literacies in the curriculum.

In work-based learning, problems are encountered in an authentic setting, their resolution is intrinsically rewarding and 'competences' are simply aspects of task performance. In formal learning, more effort needs to be taken to ensure there are opportunities for learners to practice and evidence what they can do. Recognising that different subjects can contribute expertise in different literacies for learning is a first step towards finding and sharing good practice.

One important strength of 'traditional' academic teaching in disciplines is that it recognises learning not as the collection of competences but as the emergence of an identity. Particularly in higher education, learning is about being able to take up a personal stance in relation to subject knowledge and expertise. In a digital age, learners need to practice and experiment with different ways of enacting their identities, and adopt subject positions through different social technologies and media. These opportunities can only be provided by academic staff that are themselves engaged in digital practice.

Learners supporting learners

Much peer support for learners is conducted outside institutional systems, via informal conversations and social media. However, academic staff can help by being explicit about what kinds of collaboration are appropriate, establishing peer review processes and setting group assignments. These initiatives rarely address digital literacies directly, but could be adapted to do so: student help-desks are common for supporting proficiency with digital devices and networks. All of these approaches are being tried by central services staff with good evidence of success.

'Skills acquired iteratively, through practice, and as needed, are better retained than those taught one off, in isolation, and through instruction.'

Looking to the future

In supporting digital and learning literacies, and in changing cultures to place greater value on these literacies, institutions should consider the following key findings:

Tutors need to be proactive in helping learners to develop learning and digital literacies

Evidence is growing that, despite familiarity with personal technologies, learners are generally poor at deploying their digital skills in support of learning. They lack critical media and information literacies, and struggle to translate the capabilities they do have into different contexts. Because of this they remain strongly influenced by their lecturers in the technologies and strategies they use for learning. Tutors' confidence and capacity to be innovative in their use of technologies are critical to learners' development.

Learning and digital literacies need to be embedded into the curriculum

Tutors and central service staff, including 'outreach' and hybrid staff such as subject librarians, must work together to embed opportunities for literacy development into the curriculum. It could be argued that academic disciplinary contexts are what elevate information into useful knowledge.

Learners need to be engaged in their own development

The focus of provision in curricula should therefore be on developing understanding and practice through authentic academic tasks, in digital contexts where appropriate. Assessments must be designed to recognise learners' developing literacies, and feedback must make transparent which strategies lead to success. Self-efficacy in development can be promoted through timely feedback and regular reviews of progress.

Academic staff need to be engaged in rethinking their own knowledge practices

Academic staff have few opportunities to reflect on the impact digital technologies are having in their field; those opportunities which do exist, eg around curriculum (re)validation and review, do not always foster an open and enquiring approach.

Information literacy needs to be broadened to include – or be supplemented with – communication and media literacies

It makes little sense to support information literacies in isolation from other communications and media practices. The agenda needs to be clearly formulated around informed and critical use of technology for learning. Different disciplines demand proficiency in different (combinations of) media, and create/share meaning in different ways; current information literacy models also tend to assume that academic ideas will be expressed (predominantly) in text. All the background

'Learners need skills in critically evaluating and creatively producing representations in a variety of media.'

research points to the need for learners to become proficient at creative self-expression and critical analysis; they need both to inhabit and to critique a range of media.

Employability needs to be more carefully and critically defined

Employability is interpreted in many ways at present. It appears in many strategies but very few actual interventions in student learning. There is a need for further investigation, and strategic thinking on ideas of entitlement and diversity, citizenship, institutional and sector responsiveness and the place of accreditation.

Curriculum teams and professional bodies need to consider what literacies and competences graduates will need, bearing in mind that they are likely to have several careers and that none may be in the field they have studied. They also need to consider what values, identities and attributes uniquely qualify graduates in their field, against a backdrop of change.

Further Information

Thriving in the 21st century: Learning Literacies for the Digital Age report by Helen Beetham, Lou McGill and Professor Allison Littlejohn available from www.jisc.ac.uk/whatwedo/projects/elearningllida

LLiDA project page and wiki at Glasgow Caledonian University:
www.academy.gcal.ac.uk/llida
www.academy.gcal.ac.uk/llida/wiki.html

Examples of best practice:
www.caledonianacademy.net/spaces/LLiDA/index.php?n=Main.BestPracticeExamples

Institutional audits:
www.caledonianacademy.net/spaces/LLiDA/index.php?n=Main.InstitutionalAudits