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## Communicating, learning and the in-between: a study of the impact of open-access, informal online learning environments

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# COMMUNICATING, LEARNING AND THE IN-BETWEEN: A STUDY OF THE IMPACT OF OPEN-ACCESS, INFORMAL ONLINE LEARNING ENVIRONMENTS

## PROJECT REPORT

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### 9 JANUARY 2009

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**CENTRE FOR OPEN LEARNING OF MATHS, COMPUTING, SCIENCE AND TECHNOLOGY**

**THE OPEN CETL**

**THE OPEN UNIVERSITY**

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## EXECUTIVE SUMMARY

1.      The broad aim of this project has been to contribute understandings of the uses of computer-mediated communication in 'informal' (not leading to certification) yet institutionally-hosted online spaces. The project consisted of an investigation into engagement with communication and discussion tools provided by OpenLearn, the Open University's Open Content Initiative (http://www.open.ac.uk/openlearn).

2.      The research focused on a selection of examples of asynchronous and synchronous communication situations within OpenLearn, including a selection of forums from the LearningSpace (http://openlearn.open.ac.uk) and various instances of synchronous communication using FM (FlashMeeting) that took place within the context of two pilot studies organised by the researcher in coordination with discipline-based colleagues.

3.      Whilst the research was based on an action research orientation, the approach was predominantly exploratory and ethnographic methods (observation and participant observation) were used, complemented with semi-structured interviews, as appropriate. Thematic analysis was used within a grounded theory approach.

4.      The study suggests 5 themes as core elements of engagement in CMC within an OER context: 'validation'; 'privacy'; 'trust'; 'purposefulness'; 'leadership'. The themes are mutually-dependent and each warrants more detailed investigation, and relevant topics are discussed.

5.      In short, the study provides a contribution to enquiries on the impact of OERs in that it brings to light, from within a sample of learning situations across the 'informal'/'formal' space, a number of boundary issues concerning curriculum and, in particular, pedagogy. It suggests that a major aspect of the impact of OERs is that their availability is not only creating new challenges but also uncovering previously veiled tensions and questions regarding identity and boundaries.

6.      A number of outputs have been generated, including two new projects that capitalise on understandings facilitated during the pilots carried out within the remit of this study.

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**COMMUNICATING, LEARNING AND THE IN-BETWEEN: A STUDY OF THE IMPACT OF OPEN-ACCESS, INFORMAL ONLINE LEARNING ENVIRONMENTS**

## 1. INTRODUCTION

The notion of providing open access to learning resources is consistent with current initiatives in the fields of widening participation and knowledge sharing in a 'globalised', assumedly 'flat' world (Friedman, 2005). Indeed, the Open Educational Resources (OERs) movement (UNESCO, 2002) has gained significant institutional support within a relatively short time span (Smith & Casserly, 2006), and a variety of initiatives in the area are currently underway (Atkins *et al.*, 2007). Nevertheless, despite some convincing arguments supporting the development of the movement (Hylén, 2006), 'engagement' with OERs is not an entirely unproblematic proposition.

A study of the attitudes to the rights and rewards for contributors to open repositories (Bates *et al.*, 2007) identifies a number of tangible concerns that are not easily allayed by claims such as that 'for most faculty, open educational resource initiatives are no more of a threat than the university library' (Wiley, 2006). Although OERs may be generally viewed as a 'cause' worthy of more evangelism, they may also be viewed with scepticism and, in more extreme positions, varied degrees of cynicism. Indeed, a number of factors may be at stake. MIT Faculty, for example, report different reasons for non-participation in their institution's OpenCourseWare Project, including 'insufficiently polished materials, lack of time, and concerns over the effect of OCW publication on the marketability of a book in progress' (MIT OCW, 2006 p. 55). Indeed, ownership, a core theme underlying broader discussions of the implications of digital formats to Intellectual Property Rights and Copyrights (IPR/CR), appears to play a major role in determining reactions to and, consequently, engagement with, the idea of offering open access to educational materials, often in subtle ways (Ferreira & Heap, 2006).

Despite a growing body of work dedicated to the ideological basis as well as technical and legal aspects of OERs, relatively little is known about their actual impact, particularly outside the confines of institutions directly associated with the movement. It is certainly the case that OERs are but a field in its infancy, but its impact on education is potentially far-reaching. Learner engagement, in particular, is a proposition that raises profound questions: Who are these learners? What are they looking for, and what do they make of

their experience of using OERs? How does learning in an OER environment compare with other types of learning people may engage in? How does the use of OERs provided by Higher Education (HE) institutions compare with the use of those resources offered by multiple other sources available on the Web, including, in particular, 'user-contributed content'? What about issues related to certification, mostly lacking in OER contexts? Given the current Web 2.0 rhetoric around 'the wisdom of crowds' argument (Surowiecki, 2005), what is the perceived value of OERs produced in HE outside this context? These are just a few questions in a continuously growing list.

This study set out to provide a modest contribution to enquiries on the impact of OERs by exploring engagement in computer-mediated communication (CMC) in 'informal' yet institutionally-hosted contexts. In short, the project consisted of a small investigation into engagement, in particular, with communication and discussion tools provided by OpenLearn, the Open University's (OU) Open Content Initiative (http://www.open.ac.uk/openlearn).

With the support of a major grant from the William and Flora Hewlett Foundation to fund its two-year pilot stage, OpenLearn has delivered, for free re-use within a Creative Commons Attribution-ShareAlike-NonCommercial license, a wealth of self-study learning resources that correspond to about 3% of the OU's current course provision. Two sites were created, the LearningSpace (http://openlearn.open.ac.uk), aimed primarily at learners, and the LabSpace (http://labspace.open.ac.uk), aimed primarily at other educators. Indeed, OpenLearn offers an integrated learning environment encompassing not only 'content' but also a variety of communication and social networking tools available or attached to the Moodle environment upon which the project Web sites are built.

OpenLearn expands upon the university's mission of offering open access to Higher Education within the government's agenda of widening participation, whilst providing the community of academics and educators worldwide a site for discussion, collaborative work and potential innovation in terms of curriculum, pedagogy and use of Web-based educational technologies. Indeed, within the panorama of OER initiatives across the globe, OpenLearn has had a certain advantage as far as its 'source' materials are concerned: resources of perceived high-quality that were originally developed by specialist teams explicitly for self-directed learning at a distance. Indeed, one important

aspect of institutional perceptions of the project has been its ability, in particular, the LearningSpace's, to 'showcase' the university's provision in support of course choice and, potentially, student recruitment. Despite the lack of tutorial support on OpenLearn (source materials are consistent with the OU's Supported Open Learning (SOL) model – see Johnson 2003, pp. 36-45), the sites provide the opportunity for current and potential students to sample course materials prior to choice and registration, and feedback from course staff and students suggests that this opportunity has been enormously valued by both groups of stakeholders.

On the other hand, much interest has arisen, amongst the academic staff of the institution, around a quite distinct view of the project and, specifically, the LabSpace. The LabSpace offers a platform, complete with social networking tools, for trial and development of new ideas in terms of both pedagogy and curriculum. Whilst much of the rhetoric surrounding the site focuses on the idea of 'remixing content', which may be of primary interest to external communities of learners and educators interested in reusing OU materials, it is the potential for new materials, possibly in topics not yet covered by the university curriculum, to be created and tested that has sparked more interest. Indeed, this COLMSCT study has capitalised on such interest given the unique position of the researcher as a relatively long-standing member of the institution's academic staff who acted, during the pilot stage of OpenLearn and most of the data-collection stage of this study, as a full-time member of the project's Academic Team.

## 2. CONTEXT

Teaching at the OU is a team effort that consists of two major inter-related stages referred to as *course development* and *course presentation*. Course development is carried out centrally by Course Teams (CTs), groups of (predominantly) campus-based staff that include professionals from various areas clustered around a core of academic authors. CTs exploit the institutional structure in that this is arranged to provide expert input in various tasks required for course development (in addition to academic and pedagogical expertise, graphics design, software development and legal advice and support in respect to copyrights issues, for example), which is guided by broader curriculum considerations and, more recently, a measure of market intelligence. Course presentation, on the other hand, is monitored and supported by central academic staff within an established process of quality assurance, but direct student support is provided primarily by part-time Associate Lecturers (ALs), who offer tailor-made advice to small groups of learners

(typically 15-25). The combination of multimedia materials produced centrally with the support provided by the network that includes regionally-managed provisions comprises the institution's Supported Open Learning (SOL) model. The roles of CTs and ALs differ significantly, but the split of functions between these two groups of teachers within a broader student-support network has been pivotal to the logistics required for the development and presentation of courses to often substantial numbers of students.

As part of a process that supported the eventual institutionalisation of the CT, new administrative layers have been progressively introduced to manage the growing concerns with costs and, more recently, the University's general orientation towards providing complete programmes of study leading to named qualifications (that is, certificates and degrees qualified in respect to an area of knowledge or professional remit). This move, in itself, has implied the need for a significant change of culture within the organisation, a process still underway, as courses now integrate broader Programmes which set out specific curricular requirements that courses, grouped together, must meet, as opposed to what had been a course-centred mode of operation. The Institution now appears to be re-thinking and re-defining itself within a wider context in which it is located on an assumedly equal, competitive footing with more 'conventional' universities. The wider adoption of business-oriented thinking and accompanying rhetoric within the institution, however, contributes to bring to the fore previously veiled tensions amongst representatives of different disciplines, professions and particular viewpoints.

Team teaching is not, of course, an idiosyncrasy of distance education, but it has grown into the predominant style of developing curriculum and creating learning resources in distance education institutions. Indeed, according to Chung (2001), the structure of these organisations – and the OU is here only one example amongst others – tends to reflect a commonly perceived need to endow course development with a more widely-accepted notion of 'professionalism'. At the OU, the current model of the course production process is described, in its various stages, processes and personnel required, in an online document available internally to staff (OU, *The Course Management Guide*), which outlines the relationships amongst the various areas of the university responsible for the creation and delivery of a course (under ongoing review). Interestingly, non-academic services are no longer construed as subsidiary to the development process, even though this is assumedly based on pedagogical and academic considerations. A focus on assumed 'market'-related concerns and tighter budgetary control, traditionally not major

academic affairs, compels a radically different reality that opens up an avenue for much controversy and disagreement. CTs can, therefore, be viewed as arenas that highlight administrative, disciplinary and professional divides; from this perspective they are sites of debate, contestation and conflict (e.g. Ferreira, 2006).

The OpenLearn initiative is, therefore, located in a setting that is currently undergoing profound changes which mirror broader transformations in the wider panorama of Higher Education. As such, the project itself constitutes, from a certain perspective, a field for experimentation and trial of new processes and tools that may be subsequently adopted more broadly across the institution. From a limited perspective, a major challenge has been that of re-purposing materials predominantly developed for print, albeit within the framework of larger multimedia courses, into self-standing learning resources presented on the Web. In itself, this is by no means a straightforward enterprise (c.f. Lane, 2006). Indeed, prompted by a critique of the initiative as a provider of 'unsatisfactory' eLearning materials that rely predominantly on text and lack 'interactivity', public debate took place on the blogosphere that contributed to clarify the location of Openlearn as an OER initiative with focus on sharing learning resources that can be adapted to different contexts, rather than a project focusing on developing and sharing eLearning expertise (main posts: Clark, 2008; Dewis, 2008; Hirst, 2008; Lane, 2008; Schmoller, 2008; Weller, 2008)

Crucial to the initiative are the many aspects of its institutional location and internal support processes. The broader goals of the project, those of 'contributing to a world-wide community committed to widening participation in education' (OCI, 2005), provide a host of motivations (c.f. McAndrew, 2006) as well as a rationale for the re-purposing work, but the initiative faces many other challenges. Indeed, the role of academic within OpenLearn involved, amongst various duties, liaising with colleagues based in a selection of academic departments within the university with a view to 'sourcing' (advising on the selection of) materials for re-purposing by OpenLearn, advising on 'pedagogically appropriate' ways of re-purposing those materials for presentation on the Web site and facilitating this work at the interface amongst the various stakeholders in the re-purposing process. This process required negotiation of more localised and often strongly political issues, and the experience of the pilot stage of the initiative suggests that such issues can potentially have a considerable impact on the initiative in very tangible, practical ways (Ferreira & Heap, *op. cit.*).

On the other hand, the 'liaison' aspect of the academic role within OpenLearn entailed a strong networking element that allowed the identification of a widespread interest in the use of OpenLearn in ways more closely aligned with an action research approach. Within the context of distance education and, within the OU, in particular, Internet-based technologies have been and continue to be repeatedly hailed as tools for 'bridging the distance', and this has fostered an interest in the use of tools that afford different modes of 'presentation' of learning resources as well as the adoption of communication tools to allow learners and teachers to come together more closely as 'learning communities'.

However, a certain overall 'hype' surrounding educational uses of the Internet (see Weller, 2002, pp. 2-35 for a critique) raises a number of interesting questions, particularly when numerous myths are consistently fuelled by business rhetoric and naïve enthusiasm for novelty, all of which tend to obscure the realities of introducing and using new technologies in education. The more recent Web 2.0 social networking tools, the emergence of OERs and, more generally, the continuous expansion of open content, add to this complexity in that such innovations may afford, if not entirely different forms of learning, different ways of approaching learning that pose profound challenges to all stakeholders in educational processes.

Perhaps some of the difficulties arise because it is unclear what types of learning open content may afford. OERs, in particular, embody different aspects of academic practice, and re-use (by teachers and learners alike) requires a double move of de-contextualisation and subsequent re-contextualisation under circumstances often quite distinct from the original location of the resources. [1] If viewed simply in terms of 'objects', OERs themselves, regardless of how inclusive the definition may be to accommodate different types of 'objects', [2] cannot entirely replace a much more complex scenario.

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[1] Some of the existing OER literature refers to issues of 'translation and localisation' (see, for example, OECD, *ibid.*, pp. 104-108), but emphasis is normally placed on the second step of the double move described above, re-contextualisation, partially in connection with the use of fairly broad categories to describe differences (e.g. 'Western world' vs. 'developing countries'). These considerations were relevant to the researcher's role within the OpenLearn team, but it was outside the remit of this study to delve into this area; it is worth noting, however, that such broad categories provide too rough a description of a much more complex scenario, which risks obscuring crucial differences as well as potential similarities across contexts.

[2] OECD (2007, p. 30) suggests that 'a closer look at the definition [of OERs] shows that the concept of "open educational resources" is both broad and vague'. Indeed, from an original focus on learning resources (UNESCO, *op. cit.*), the term now seems to encompass tools (e.g. social

Indeed, the idea of 'community formation' through the use of communication tools offered by OpenLearn has been a difficult issue to tackle, [3] and the perceived 'low level of use' of this element of the Web sites was widely discussed within the project team, with conflicting arguments put forward for and against offering some sort of 'moderation', even if only in specified areas of the LearningSpace. Part of the motivation for this study has been a coupling between a personal interest in CMC with a perceived need to gain some insight into the uses, actual and potential, of communication tools provided by OpenLearn, and this has suggested a location for the study within a broad area of 'online informal learning', as explained below.

## 3. AIMS

The broad aim of the project has been *to contribute understandings of the uses of CMC in OER contexts, in particular, in 'informal' (not leading to certification) yet institutionally-hosted online spaces*. The project has sought to identify practices, opportunities and challenges within the context of OERs that, nevertheless, bear relevance to the wider staff basis in HE involved in student support and course development. In short, this study has generated an account of engagement with OERs based on a sample of learning situations across the 'formal'/'informal' space, and it takes into consideration the perspectives of 'learners' and 'teachers' alike.

Despite following a broad action research orientation, the project has been strongly exploratory in nature. Also, considerable effort has been dedicated to locating the work within the extant literature as well as, importantly, outlining a feasible scope for the investigation *vis-à-vis* its many constraints. These issues are discussed in more detail in the subsequent section.

## 4. METHODOLOGY

### 4.1 Theoretical grounding

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software and content management systems) as well as 'implementation resources' such as licenses and 'best practice' guidelines (Margulies, 2005, quoted in OECD, *op. cit.*, pp. 30-31).
[3] Informal discussions with colleagues in two other OER initiatives (who have asked to remain anonymous) suggest that perceived 'difficulties' with the social networking element of the initiative may not be an idiosyncrasy of OpenLearn, but perhaps a more general issue for OERs initiatives that merits more investigation.

**What location?**

As suggested above, OERs are a field in its infancy, and there is very little as yet to provide a basis for scholarly comparison with similar contexts. The literature in the area of CMC in education, however, strongly supports the idea that interventions from a 'moderator' or 'facilitator' are crucial to the development of an online learning community, and the issue of 'moderation' appears critical also in online environments other than educational. But is this the case in the context of OERs?

It would be an understatement to claim that evaluation and research in the area of engagement with OERs pose major methodological challenges. Indeed, it may still be the case that 'to date, far more effort has been expended on predicting the revolutionary futures of the Internet than has been put into finding out in detail how it is being used' (Hine 2000 p. 2). This 'finding out' poses considerable difficulties to researchers in this context, particularly when 'embedded in the processes of production and delivery of OERs are discourses that evoke specific agendas', as Santos (2008) suggests. For example, relatively recent methods in the areas of Web analytics and Web-based surveying appear to provide understandings that lend themselves quite immediately as support to institutional decision-making based on marketing rhetoric. This may support necessary expediency and, perhaps, open up different ways of thinking in a dialogue with pedagogy, but locating the types of findings afforded by these methods in respect to the extant educational literature is not a straightforward proposition.

These difficulties have, in part, motivated the adoption of a more exploratory approach in this project, informed by the incorporation of ethnographic methods (observation and participant observation) whilst retaining an action research orientation that capitalised on the researcher's academic role within OpenLearn. The broader goal of this study was more akin to a search for relevant questions than an attempt to provide clear-cut answers. This is a different approach than that adopted in Wilson (2008), which reports on a study that focused explicitly on the perspective of 'facilitators' on 'how they will use OERs and forums' available on OpenLearn. That study investigated a context provided by potential OpenLearn collaborating institutions, focusing on the question of how they would incorporate OpenLearn OERs into their own provision. [4] As such, the study is based on

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[4] The institutional location of the participants is, however, not clarified, although some background information on their role in curriculum and policy development would be relevant to inform the

the premise that a 'facilitator' (teacher, lecturer, etc.) is available to provide recommendations to students already associated with an educational institution, whilst the concern here has been to identify existing premises, practices and broader issues related to engagement, which includes addressing the question of whether participation requires guidance (or, perhaps even, some form of institutional association) in the first place.

Crucial to the rationale informing the selection of investigative methods for this project, however, has been a recognition of *multiplicity* and *contingency* in the practices and approaches surrounding the 'objects' of study (the communication tools as a class of OERs available). Ethnographic methods provide useful tools to tackle a complex scenario in which multiple practices conflate around a set of shared 'objects' whose production and dissemination is so strongly linked with 'Discourses of Participation', as Santos (*ibid.*) suggests. The pervasive idea that online media provide a tool for the 'democratisation of the relationship between teacher and learner' (Swan, 2002) has a parallel in those discourses in that both neatly conceal crucial power issues underlying the processes of teaching/learning and sharing learning resources, respectively. Nevertheless, as Herring (2001) suggests, CMC 'inherits power asymmetries from the larger historical and economic context of the Internet … pre-existing social arrangements carry over into cyberspace to create an uneven playing field, and CMC can be a tool of either oppression or resistance'. This suggests that questions of power need to be considered.

Indeed, the 'in-between 'position of the researcher (full-time member of staff in the institution – member of the OpenLearn Team – Researcher) does afford potential conflicts of interest, and 'impression management' (Hammersley & Atkinson, 2003, pp. 83-92) during the project became, to a large extent, an exercise in diplomacy. This clearly raises issues regarding reflexivity and ethics, which makes reporting of findings a subtle and demanding writing exercise. Although envisaged difficulties involved in researching 'people that won't tell us anything' (McAndrew n.d.), or, often, do not *want* to tell us much, had been considered when proposing the study and outlining its overall rationale, but, in practice, the study required considerable flexibility and constant adaptation, and this has raised a number of interesting questions concerning boundaries. As Somekh (2006, p. 7) suggests,

broader picture provided by the report, with participants being portrayed as 'representatives' of their respective institutions. One reason why this is important is that, whilst individual teachers (at any level but in institutions that have deployed their own VLE) may find it beneficial to recommend OpenLearn forum usage to their students, this may run counter to institutionally-determined policies regarding VLE use.

'Action research involves a high level of reflexivity and sensitivity to the role of the self in mediating the whole research process. The self of the researcher can best be understood as intermeshed with others through webs of interpersonal and professional relationships that co-construct the researcher's identity'.

On the other hand, there is an extensive literature related to 'informal learning' (e.g. Bekerman *et al.*, 2006; Cross, 2007; Richard & Wolfe, 2001; Edwards *et al.* 2006; Hager & Halliday, 2006), but the territory covered is broad (e.g. 'work-based learning', 'lifelong learning', 'youth/community work') and the term is used in many different, often mutually-excluding ways. Hager & Haliday (*op cit.*, pp. 236-238) provide a number of dimensions for an emerging 'theory of informal learning' based on a negative definition of the term, [5] assuming that 'the distinction between formal and informal learning is both useful and, in most contexts, easily made' (*ibid,* p.1). McGivney (2006) somewhat eschews the question of a definition by 'putting a research spotlight' on the matter, suggesting that 'it shows the contexts in which learning takes place and the ways in which learning is acquired [sic], are integral to and as important as *what* is learnt' (original italics). The question of 'what' is learnt in fact appears central to the debate, and it appears as one of two dimensions ('knowledge structure', equated with 'an intentionally [, institutionally] organised body of knowledge' as opposed to 'situated learning'; 'primary agency', equated with guidance from 'self' or from 'teacher') in Livingstone's (2006) map of forms of learning. The term has been adopted within the area of eLearning/online learning (e.g. Atwell, 2007), but through a surrounding debate 'the term lost in conciseness and [is] threatened to be an empty buzzword for political and management speeches' (Rohs, 2008). Indeed, Rohs' (*ibid.*) report of a recent survey of 'informal e-learning' carried out with experts confirms the lack of an agreed conception of 'informal learning' also in the context of e-learning.

A dimension that appears common across different conceptualisations of 'informal learning' is that of 'certification', and this provided some support to the initial idea of locating this study within the area of 'online informal learning'. This move was motivated, to some extent, by the perceived need to relate this study to existing knowledge, but it was also part of an original process of generating initial categories for analysis. Indeed, an interesting aspect of the feedback from participants was that, despite disagreements on

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[5] Informal learning is 'defined' as 'all other situations in which people learn', following a definition of 'formal learning' as ' that which takes place as intended within formally constituted educational institutions such as schools, colleges, universities, training centres and so on' (*ibid*, p.30)

other possible dimensions of learning (e.g. structure, context/situation, curriculum), a common understanding of 'informal learning' as that which is not associated with certification, amongst other possible differences. From this perspective, learning was initially conceived as a process mapped onto a multidimensional space in which certification featured as one possible dimension. This pragmatic move has been useful inasmuch as it contributed to the initial planning of the study, but the study itself has raised many questions concerning *boundaries* and difficulties associated with these, as discussed below.

**Foreshadowed problems**

A list of areas of foreshadowed problems (Hammersley & Atkinson, 1995 p. 24) was compiled initially that included the following:

- Perceptions of OpenLearn (staff, students, OpenLearn users not directly associated with the university), specifically, and OERs, generally
- Motivation and reasons for engaging with OERs
- Issues in creating OERs (e.g. ownership as entailed in the area of Intellectual Property and Copyrights – IP/CPR)
- Learners and teachers perspectives on learning without certification
- Subject-area 'cultural' differences
- Privacy

These areas provided a set of sensitising concepts, 'suggestive ideas about what might be potentially fruitful to examine and consider, an emergent meaningful vocabulary that alerts the researcher to promising avenues of investigation' (Clarke, 1997).

**4.2 Method**

**4.2.1 OpenLearn and CMC**

OpenLearn has re-purposed (so far) around 3% of the university's curriculum into two separate sites. These sites are similarly structured into 'Units' (that correspond to a Moodle 'course') grouped under a number of subject areas, although the LabSpace

includes extra categories to house research, collaboration and experimental work that does not take place in association with the LearningSpace. Figure 1 shows the categories listed on the top page of the LearningSpace.
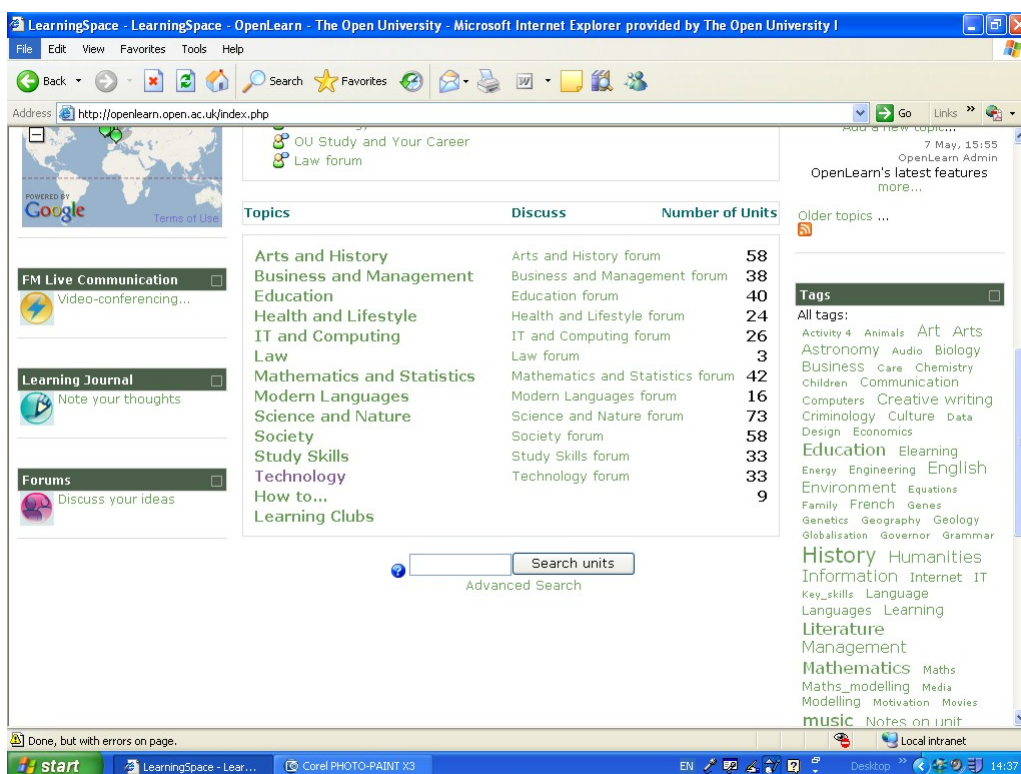


**Figure 1: Content categories available on OpenLearn, view from the LearningSpace [6]**

Both sites offer the standard Moodle asynchronous conferencing functionality (see, for example, Cole, 2003). Figure 2 shows an example taken from the LearningSpace. Indeed, every Unit within OpenLearn has its own forum, accessible from the Homepage of the relevant Unit, but there are also general forums for each of the categories shown in Figure 1 as well as umbrella Lab- and Learning- Space forums and extra support forums (e.g. Tools). The LabSpace includes, in addition to copies of all the Units in the LabSpace (together with separate forums for each), a vast amount of extra resources taken from 'legacy courses', that is, courses no longer supported and, therefore, not included in the 'showcase' provided by the LearningSpace. Some of the LabSpace Units contain (nearly) complete courses equivalent to hundreds of study hours (excluding third-party materials,

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[6] Both OpenLearn sites are continuously updated, implying that the current view will be slightly different from what is shown on the screenshots taken for this report.

materials created outside the OU, which are not cleared for use in this area of the site due to budgetary constraints). In short, there are over 1000 different forums on OpenLearn, and more are being added as new Units are created.
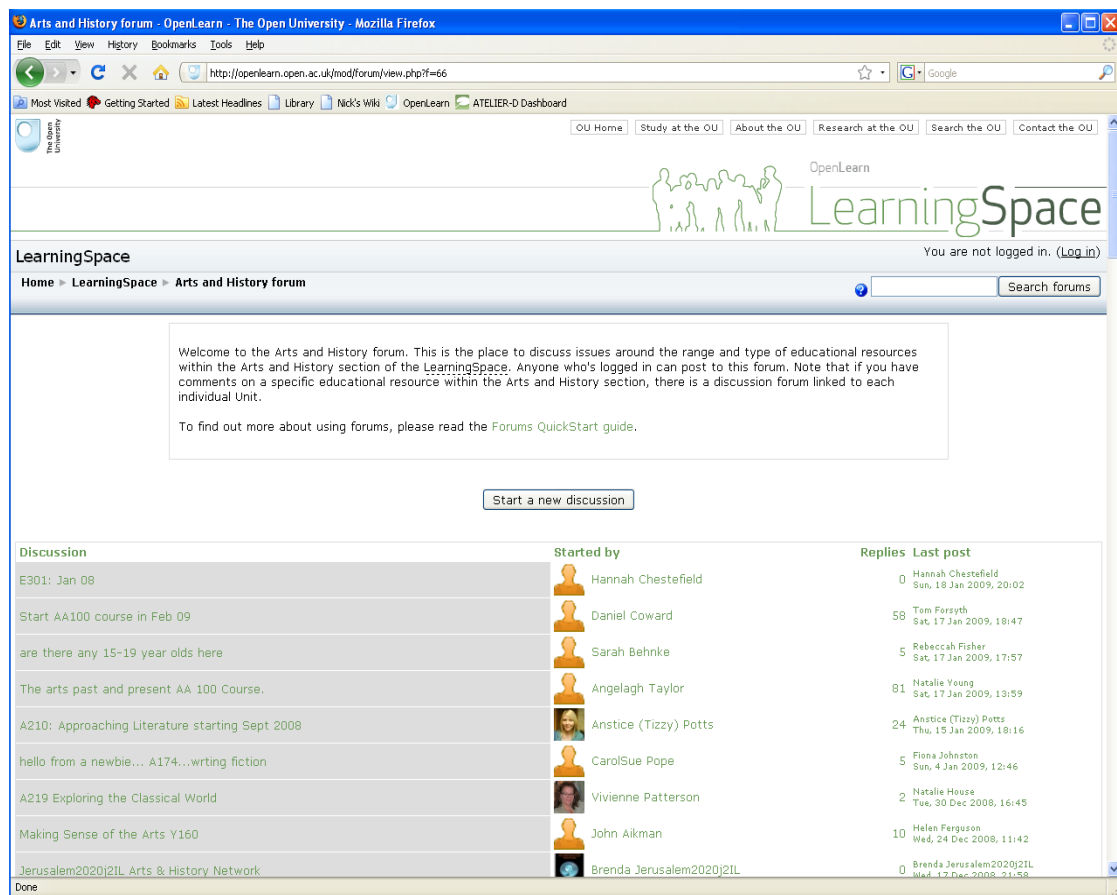


**Figure 2: Example of Moodle forum on OpenLearn**

The potential area for investigation included not only the OpenLearn sites but also many other possibilities such as other OU-related 'informal' sites (e.g. the OU Student Association area on FirstClass, [7] the OU hubs in networking sites such as YouTube, Ning and Facebook, and, recently, the OU presence on the iTunes University) as well as other OER sites (e.g. Connexions) and blogs.

In addition to these possibilities, OpenLearn includes a number of subsidiary features, notably, FM (FlashMeeting), a browser-based videoconferencing tool developed at the OU's Knowledge Media Institute (KMI). Although the tool is not being extensively used

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[7] FirstClass (http://www.firstclass.com) is the main asynchronous communication tool used at the OU.

within the university's main course provision, it has been widely adopted by a variety of external groups associated with OpenLearn and using, in particular, the LabSpace as a platform to support their work (please see http://labspace.open.ac.uk/course/filter.php?grouping=topic&detail=20&order=level). This study, however, has concentrated on exploring a modest sample of examples drawn from both asynchronous and synchronous communication, as detailed below.

### 4.2.2 Asynchronous communication

A snapshot of a selection of OpenLearn forums was taken on the 4th July 2008. Across the whole of the OpenLearn site, from the date when the site went live (26 October 2006), over 6500 messages had been posted. [8] This study has focused on the top level forums (help and umbrella topics), partially because most of the unit-level forums were underutilised or not utilised at all. Indeed, Learning Clubs were launched at the end of July 2008 as a planned attempt to encourage social networking on the site, as discussed below, and this feature introduced further complexity to the forum structure and access, as shown in Figure 3.
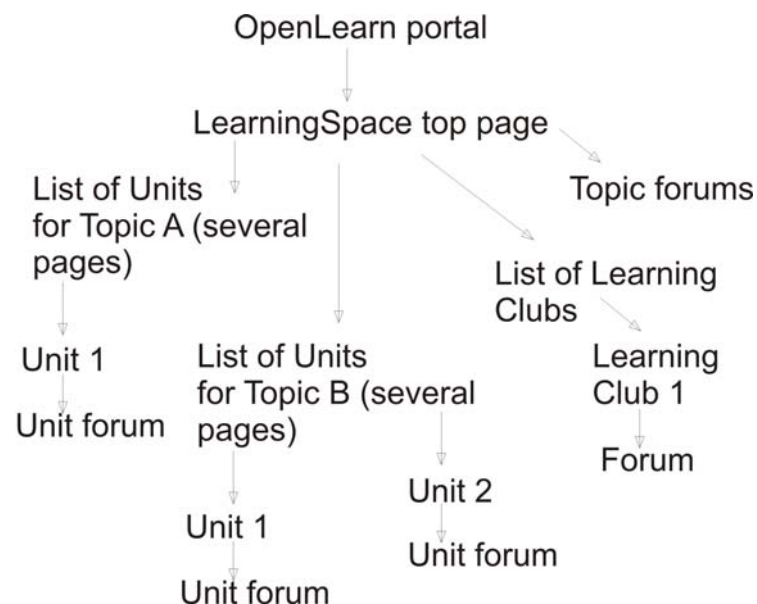


**Figure 3: Schematic representation of forum access on OpenLearn**

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[8] Data obtained from the OpenLearn Statistics Dashboard v 2.0, which drew upon the Moodle server logs (the Dashboard is no longer available).

During the course of the research it emerged that subsidiary spaces appeared to be an element of intrinsic importance to the overall asynchronous communication revolving around OpenLearn. These spaces include a number of OER- and educational technology-related blogs as well as the OpenLearn/OU areas on YouTube and Ning. Material drawn from such sources was approached as part of the broader context considered in this study, but not included in the data set collected for analysis. Finally, the asynchronous forums for the two Pilot Learning Projects described next were also included.

### 4.2.3 Synchronous communication within two 'Pilot Learning Projects'

**Overview**

Two 'Pilot Learning Projects' were run as part of this study, one in the subject of Ethics and Technology, and the other in the area of Design. With the researcher acting as coordinator as well as participant observer throughout the process, each of these projects was devised, organised and supported by an organising group that included a subject specialist, a videoconferencing specialist and a Communications professional. They were entitled 'Learning projects' because they were envisaged as learning experiences for *all* of those who participated, including the organising group(s). Indeed, each project was presented to potential participants as an 'experiment' that, whilst part of a broader research project, might also inform future course development within the university.

The initial motivation for this work was to experiment with techniques that might encourage further participation in the (asynchronous) forums available within different areas of the LearningSpace. In particular, lengthy discussions took place with potential collaborators (subject specialists based in different academic units) around the idea of using devices such as mini-lectures or short commentaries (prepared with FM or video blogging) to somewhat 'personalise' the main 'content' areas of the space. [9] These

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[9] The issue of 'personalisation' is a difficult one as far as authorship of materials at the OU is concerned, and some discussion took place within OpenLearn's Management Team when concerns were raised regarding the potential for 'invasion of privacy' if authorship were clearly acknowledged within the site. More importantly, however, is that, since all OU courses are developed by teams, it is often difficult (impossible, in the case of some 'legacy courses'), to ascertain authorship beyond that of 'The Course Team'. Therefore, mostly for the sake of expediency, the project adopted a policy that no individual acknowledgments would be added to the site beyond those supporting the use of third-party materials. Although an area of 'foreshadowed problems' initially considered, the question remains whether this is an issue of relevance to engagement with the sites, which are in a stark contrast with the site of a project such as Rice University's Connexions (http://cnx.org/), broadly construed as a 'grass-roots' enterprise

discussions, however, suggested an overall lack of interest amongst staff in attempting to reproduce online what was perceived as a very 'old-fashioned' approach. From an original group of 9 members of staff with whom these ideas were discussed (mostly Course Chairs), all presented arguments neatly encapsulated by one colleague's comment: 'we ought to be using these tools to get out there and do really innovative things, not old-fashioned stuff'. From these discussions, the idea of fostering a more hands-on involvement of subject specialists emerged. Crucially, the research focus on communication was translated into the possibility of engaging directly with learners throughout the process, and this emerged as an exciting prospect to course developers working within the development/presentation framework of the institution.

Each of the pilots had the following broad aims:

- To explore ways in which OpenLearn can contribute to course development at the OU by providing a platform for experimentation and trial of new ideas
- To encourage further use of FM by creating, evaluating and reporting on interesting exemplars which demonstrate a range of features provided by the application
- To document and reflect on the opportunities afforded at the boundary formal/informal learning at the interface between the OU and OpenLearn as an externally-funded initiative

The overall structure of these pilots revolved around the idea of using the communication tools available on OpenLearn (in particular, FM on the LabSpace) to experiment with curriculum and/or 'delivery' innovation. Nevertheless, relatively prolonged negotiations took place before these aims and structure, which tentatively bring together the wide variety of interests represented in each organising group, were agreed and, crucially, circumstances were such that staff was able to commit to the projects despite their very busy schedules. Indeed, time availability (rather, lack thereof) emerged as a major issue for staff. In themselves, these negotiations (including the discussions with colleagues who were eventually unable to commit to experiments in their own subject areas) were quite revealing.

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that explores authorship as a structuring element. The OpenLearn sites are strongly 'branded', and the presentation of resources is such that these can be easily interpreted as 'institutional commodities', with only a few 'faces' presented in the top portal that links to both main sites.

It is important to note that both projects counted on ongoing technical support regarding their videoconferencing element. In discussion with the researcher and the two main subject specialists, the videoconferencing specialist developed a downloadable *FM Training Guide* that was distributed to all participants. This *Guide* was modelled after the existing *eTMA Training Guide* used in staff development within the university, [10] and it capitalised on the support materials available via the FM Project Homepage (http://flashmeeting.open.ac.uk/home.html) and the unit on FM available at http://openlearn.open.ac.uk/course/view.php?id=3101, all of which are openly and freely accessible.

**Pilot Learning Project 1:** *Ethics and Technology for Practitioners*
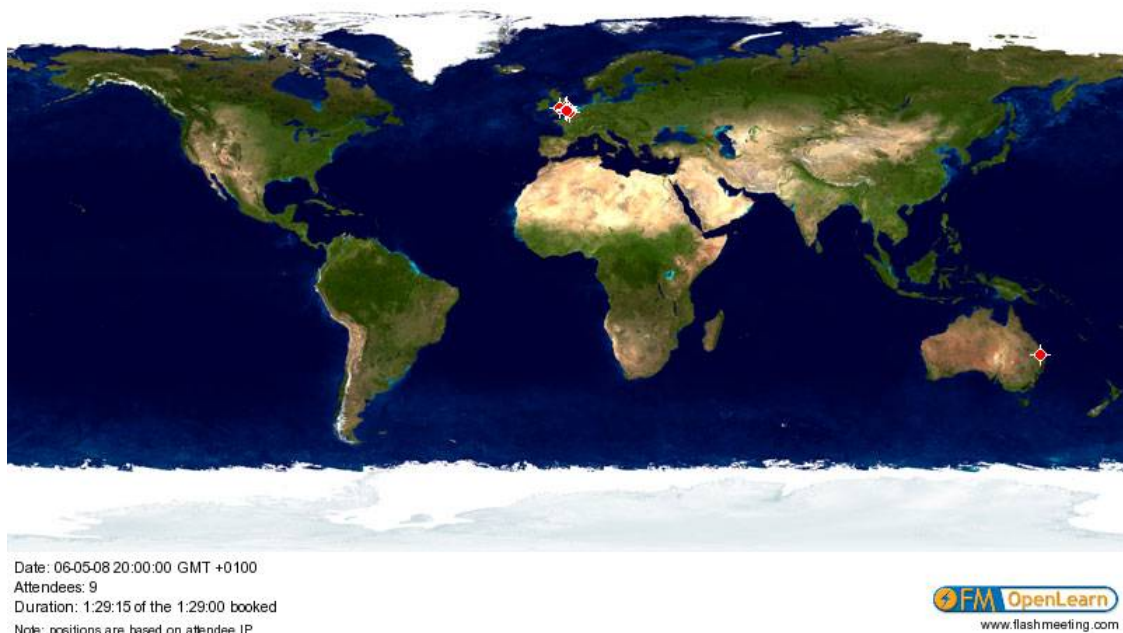
***The Subject Perspective***

From the perspective of its subject area, the first pilot was designed to explore the possibilities of using drama and, in particular, dialogue, in teaching and learning ethics in engineering and technology. Professional bodies in the area have relatively recently begun to require, as a condition for curriculum accreditation, the inclusion of ethics-related topics, and new pedagogies for teaching these topics are gradually emerging, perhaps partially in response to these requirements, with the use of drama, case-studies and scenarios figuring prominently amongst potential techniques. Although OU courses in technology-related subjects have traditionally covered aspects related to professional practice and the social significance of technology, often under the umbrella term of 'social impact', ethics is only beginning to be included explicitly within the set of learning outcomes used to outline courses and frame their development. The OU is widely recognised for the quality of its audio-visual materials (many created in the long-standing collaboration with the BBC, whereby academic staff act as specialist consultants), but the use of drama in teaching technology-related subjects remains an idea relatively unexplored. Against this background, this pilot set out 'to explore a number of examples of dialogue to uncover how ethics and the theatre might inform engineering practice', as put by the subject-specialist. In addition to providing a sample learning context for this study, the experience should be used to inform the creation of materials for a new course currently in its early stages of development.

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[10] The eTMA (Electronic Tutor-Marked Assignment) System is the OU's system that supports online delivery of (and feedback to) student course assignments.

### *Participants*

A group of 6 participant-learners took part in this experiment. From this group, one participant was a student registered (but not with the OU) on a distance learning degree in IT with Business, but all other participants were professionals at different stages of their career in an IT-related area, including education, management and engineering. The group comprised mostly England-based participants (albeit geographically spread across the country), but it included also one individual based overseas (Australasia), as shown in Figure 4. Interestingly, gender representation was even (50/50%) although this was not set as a deliberate recruitment goal. Only two participants had had a previous involvement with the OU as students, with one of them currently reading for a degree in an area that is not directly related to their work. Also, only two participants described themselves as 'regular' OpenLearn users, one re-using resources in their own teaching practice, the other using resources to support their current studies and future choices within the options embedded in their chosen degree structure.



Date: 06-05-08 20:00:00 GMT +0100
Attendees: 9
Duration: 1:29:15 of the 1:29:00 booked
Note: positions are based on attendee IP

**Figure 4: Map showing attendance to Session 2 of the *Ethics and Technology for Practitioners* Learning Pilot**

Recruitment was initiated via messages posted in selected areas of the LearningSpace ('LearningSpace forum', 'IT & Computing forum' and 'Arts & History forum' – the latter

category houses materials in the area of Philosophy). The initial call was a brief message that had the purpose of gauging interest in 'a series of Webinars on ethics and technology'. 'Interest' presented itself as a potential issue, as there was no way to ascertain whether participants would come forward that would be interested in a relatively specialised topic and able to commit. An initial number of 6-8 participants had been agreed as an 'ideal' by the organisers, taking into consideration the need for a minimal number that would afford a 'critical mass' for discussions, but envisaging potential issues if too many participants were to be involved in discussions in a medium that, to most, might be new. Indeed, although all participants described themselves as experienced email and text-based forum and messaging applications users, as well as proficient in using the Web for gathering information, only 2 individuals in the group described having had previous experience using videoconferencing, but that was restricted predominantly to one-to-one communication (e.g. using Skype or Messenger instead of the phone to keep in touch with friends and family abroad).

Within a two-week period, 15 individuals replied to the dedicated mailbox created to manage the recruitment process with some degree of privacy. From these initial queries, most of those who did not join the discussion group were unable to do so because of the time commitment required. From the justifications received, some were based on personal circumstances ('family time'), given the proposed time of 8 pm for the weekly discussions (suggested partially as an attempt to accommodate different time zones). All potential participants had Internet access via broadband, with only one individual in the process of switching providers and technology (at the time, 56k modem) who decided not to join due to technology-related questions.

### *Structure*

The overall structure of the learning experience was developed collaboratively by the organising group around the idea of supporting discussion of a selection of resources available as text, audio and audio-visual. Participants were expected to engage with the recommended resources for a given session prior to joining the discussion, when they would contribute their own understandings and relate them to practical examples, many drawn from their own everyday experience or the media. Main discussion was synchronous, convened by the subject-specialist in weekly 1 ½ hour sessions over FM.

A LabSpace unit was created to provide a 'home' for the participant group. The unit contained most of the resources, a single (asynchronous) discussion forum to support discussion between FM sessions and relevant links, including links to the homepage of the FM sessions. To allow for some flexibility and ongoing updating, the unit was created using the in-situ editing features made available to the researcher and the subject specialist, instead of the usual bulk-production methods of OpenLearn using XML tagging and automated publishing (for details on this process, please see Connolly *et al.*, 2007). The editor's view of the unit's Homepage is shown in figure 5; participants did (do) not have editing permissions (although all are contributors to the forum) but had (have) a similar view of the Homepage.
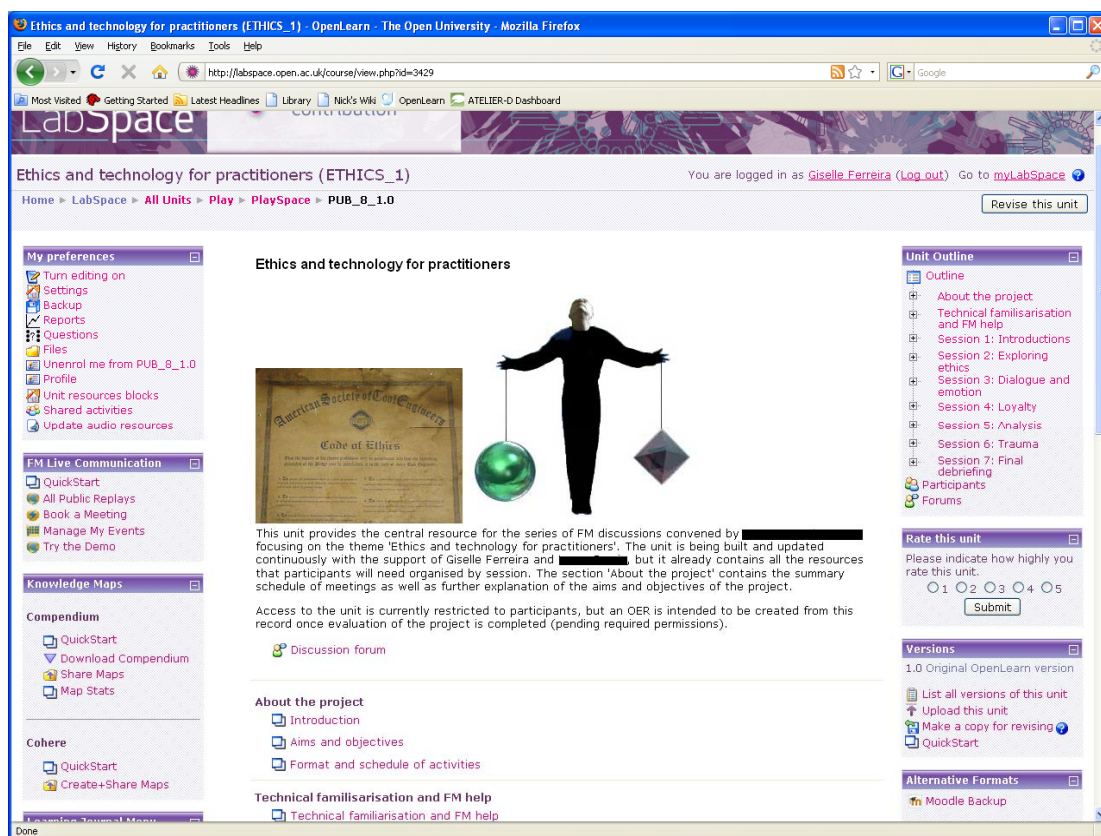


**Figure 5: Homepage of LabSpace unit for the *Ethics and Technology for Practitioners* Learning Pilot (editor's view)**

The unit had a structure that mirrored the structure proposed for the synchronous discussion, that is, a series of pages referring, each, to a given synchronous discussion session. Each page was directly linked to from the unit's Homepage but also accessible

via other navigation options available on the site. Each page was titled according to the discussion session to which it referred, and each was sectioned similarly, as follows (please see figure 6 for an example):

- At the top of the page, a section containing the link to the relevant FM session to be used for joining or, later on, replaying the discussion (links were also circulated to the group via email)
- A main section with the resources (links) recommended as preparation for the synchronous session;
- A section with notes and links to the session summary, completed soon after the session took place
- A section containing the resources (links) recommended as preparation for the subsequent synchronous session
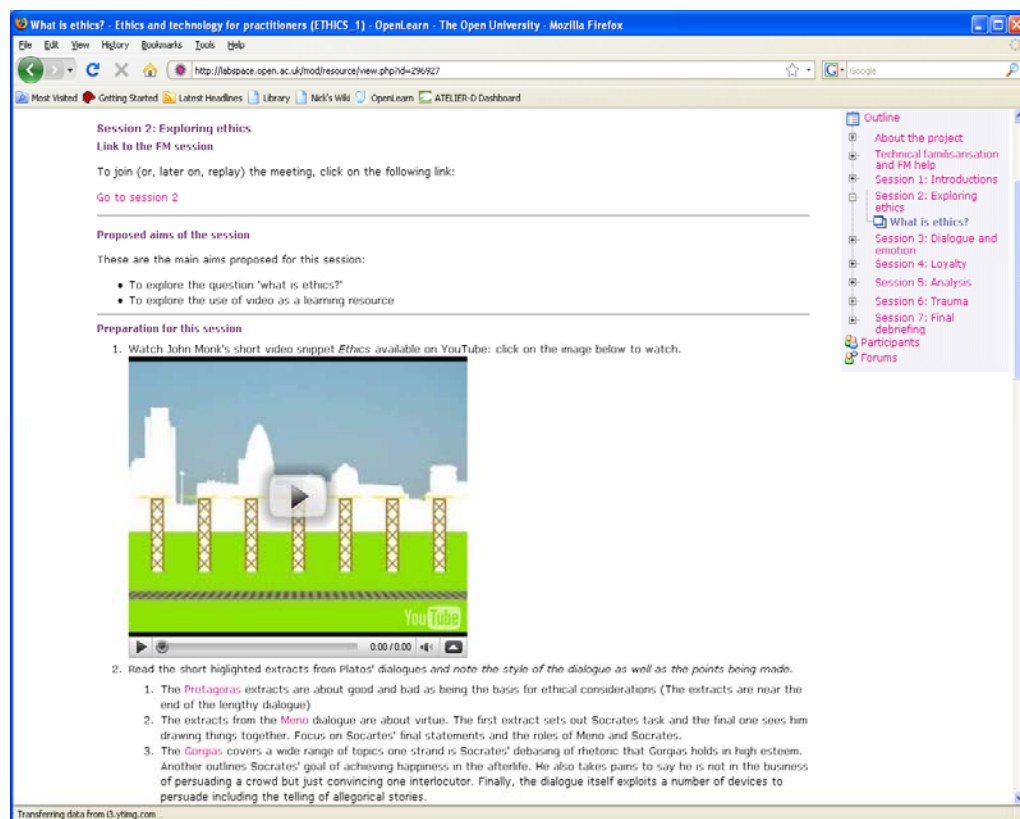


**Figure 6: LabSpace unit page for Session 2 of the *Ethics and Technology for Practitioners* Learning Pilot**

The experiment involved a series of 7 FM sessions, each with its own aims, with the last session in the series dedicated to general debriefing on the experience, as shown in Table 1. Also, three preliminary familiarisation sessions took place prior to the main discussion, convened by the tool specialist and attended by different sub-groups of participants.

**Table 1: Structure and resources for the *Ethics and Technology for Practitioners* Learning Pilot**

| Session | Aims | Resources |
|---|---|---|
| **Session 1: Introductions** | • To provide the role of an icebreaker<br>• To look at the project aims, schedule and protocol for the subsequent sessions.<br>• To begin to identify components of the topic of ethics | • Extracts from George Bernard Shaw's (1907) *Major Barbara*, accessed via the Project Guttenberg site at http://tinyurl.com/4b72mb<br>• Extracts from G.E. Moore's *Principia Ethica* (1993, Cambridge University Press), accessed via Google Books at http://tinyurl.com/avfrtk<br>• Extracts from Richard Rorty's *Contingency, Irony and Solidarity* (1989, Cambridge University Press), accessed via Google Books at http://tinyurl.com/dzr93u |
| **Session 2: Exploring ethics** | • To explore the question 'what is ethics?'<br>• To explore the use of video as a learning resource | • John Monk's video *Ethics* available online at http://tinyurl.com/bx365b<br>• Annotated extracts from Plato's *Protagoras*, |

| | | |
|---|---|---|
| | | *Meno* and *Gorgias* (text sourced from the Guttenberg Project http://www.guttenberg.org and annotated by the subject specialist) <br> • Extracts from Sophocles' *Antigone* (sourced from the Guttenberg Project) |
| **Session 3: Dialogue and emotion** | • To explore the role of emotions in ethical considerations <br> • To discuss the use of audio as a learning resource | • Extracts from Martha Nussbaum's (1998) 'Emotions as judgments of value' (in E. S. Shaffer, ed., *Comparative Criticism* volume 20 pp. 33-62), accessed via Google Books at http://tinyurl.com/bjfc83 <br> • Audio play (in LabSpace unit): Katie Hims (2006) *Call Waiting* |
| **Session 4: Loyalty** | • To look at how negotiations might resolve apparent ethical differences <br> • To examine how the play *Last Call* introduces ethical issues | • Audio play (in LabSpace unit): Mike Walker (2006) *Last Call* |
| **Session 5: Analysis** | • To study the text of a play and locate and identify a variety of ethical issues and rhetorical styles aimed at altering other people's ethical | • Act 1 of Joe Penhall (2007) *Landscape with weapon* (printed copy provided to participants) |

| | perceptions. | |
|---|---|---|
| **Session 6: Trauma** | • To complete the study of *Landscape with Weapon* and to extract the lessons about ethics from this and previous sessions. | Acts 2 and 3 of Joe Penhall's *Landscape with weapon* |
| **Session 7: Debriefing** | Final Debriefing | Participants' notes, questions and reflections on the topics, resources and tools used in the pilot (free discussion) |

In addition to the resources shown in Table 1, weekly summaries of the FM discussions prepared by the subject-specialist were made available to participants via the relevant session page in the LabSpace unit soon after each session. These summaries include slides with images and text prepared by the specialist, providing an elaborate conceptual structure that helped to organise the discussions. A brief description of this conceptual framework in respect to the resources chosen is provided in Monk & Ferreira (2008), but further work, funded by the Higher Education Academy Subject Centre for Information and Computer Science, is currently underway that aims to develop and apply this conceptual structure to create an OER to be published on the LabSpace. The preparation of this OER is being informed by the many lessons learnt in the pilot work (please see 'Project Outputs' section for description of this new project).

The LabSpace unit and FM replays remain available to participants only, partially because, amongst the resources chosen, the audio plays and published script posed IP/CPR questions that could not be addressed within the limited budget available. The play script was delivered directly to participants within a small 'participant's package' provided by OpenLearn, which included also a Webcam and headset. The audio plays, however, cannot be made openly available on OpenLearn due to copyrights restrictions posed in the agreement between the BBC, who produced the plays, and the OU, who commissioned the work. Nevertheless, within the remit of this agreement it was possible to offer the participants in the study access to the plays, and it will be possible to offer the scripts in the OER currently being prepared with basis on this work.

*Data*

The following data obtained in this pilot have been used in this study (in addition to the researcher's observation notes):

- Three 1-hour technical familiarisation sessions on video (with server-generated minutes available via the relevant meeting Homepage)
- Six 1 ½-hour subject-based discussions on video (with server-generated minutes available via the relevant meeting Homepage)
- One 1 ½-hour group debriefing session ('online focus group'; with server-generated minutes available via the relevant meeting Homepage)
- 49 text-based messages exchanged in an asynchronous forum
- 138 email messages (including messages concerning the organisation and support of the experiment)

Further server-generated data (linear and polar are diagrams showing the broadcast and chat dominance in meetings) were included for analysis where appropriate.

Upon completion of the main experience, 4 of the participants were able to contribute to its evaluation with a 1-hour interview (2 over the phone, 2 over Skype). The interviews were semi-structured following the 4-stage framework proposed by Adams & Cox (2008).

**Pilot Learning Project 2: *Online Design Studio***

*The Subject Perspective*

This pilot was directly linked with the main provision of the university in the area of Design, where there is a strong interest in trialling emerging tools that can support collaborative work online, and the experiment was directly associated with a particular course currently in presentation (T211 *Design and Designing* – course description available at http://www3.open.ac.uk/courses/bin/p12.dll?C01T211). In contrast with the requirements of the subject area of the previous pilot, Design has more stringent needs in terms of the types of interactions that a tool must afford to be considered 'appropriate', and part of the motivation for this pilot was to trial FM, with particular focus on its whiteboard feature, as a potential tool to support collaborative work in the area.

## Participants

In contrast with the previous pilot, which sought participants from amongst OpenLearn users, this pilot recruited participants from the T211 student cohort. The initial call to gauge interest took the shape of a message posted directly in the T211 Course Conference on FirstClass, and the recruitment process was managed by the Course Chair, who acted as the main subject specialist in the experiment.

This pilot also counted on 3 other subject specialists, a colleague who has recently joined the campus-based academic staff of the university and two experienced ALs who support T211, each with different roles and stakes in the project. The ALs, who are not normally involved in course development within the existing development/presentation split that characterises teaching at the OU, warmly welcomed the opportunity to participate in what was perceived as a 'cutting-edge experiment'. Their participation was on a consultancy basis funded by OpenLearn.

Similarly to the 'Ethics' pilot, here too a group size of 6-8 participants was originally envisaged, but response to the initial call, which made it clear that the project would consist of an 'experiment' entirely independent from the course in that it would not gain participants any extra credits, was quite low. Within a 2-week period, 7 students came forward, and 6 participants were recruited (the seventh was eventually unable to dedicate any further time to studying outside what was already required to complete the course). Although using email, FirstClass conferencing and CAL resources as a matter of course in T211, participants presented themselves in very different ways regarding their fluency and confidence in using IT as well as in their professional/academic background. Indeed, whilst two of the participants presented themselves as 'professionals' in different roles within the area of Design, most described themselves as future returners to the job market. Also, only 2 out of 6 were male.

## Structure

The overall learning experience was developed around the idea of supporting collaborative problem-solving by a group of participants including 'designers' at different stages of their career, as might be the case in a design studio. Studio-based learning

supports 'learning by doing' as Green & Bonollo (2003) put it: 'the studio brings together disparate thinking into a forum of discussion and idea exchange. Students experience the …struggle for understanding the requirement'. Crucially, in the studio 'students may have to *find or establish the problem*' (*ibid.*) (original italics).

With the purpose of creating an activity consistent with a studio-based approach that could be then later adapted and used to introduce beginner design-students to collaborative work, the original task or 'problem' had a fairly broad brief but a relatively clear structure in terms of stages leading to expected outcomes or 'deliverables' to be produced by the group at every stage. The overall task was split clearly into separate steps, each corresponding to a stage in design process model studied in the course with which the pilot was associated, as shown in Table 2. Participants were expected to dedicate some time working through these steps before joining the main group discussion, a weekly 1-hour FM discussion.

**Table 2: Structure and tasks proposed in the *Online Design Studio* Learning Pilot**

| Session | Task |
|---|---|
| **Session 1: The design brief** | To explore and discuss the initial brief |
| **Session 2: Understanding the market and users** | To explore the perspective(s) of users. Questions for discussion include:<br>• What do you need to know to make design ideas more attractive to purchasers?<br>• Where can you find information on usability, marketing etc? |
| **Session 3: A design specification** | To discuss and agree on specific design brief and a product design specification |
| **Session 4: Concept generation** | To explore ideas for resolving the product design brief using, in particular, the whiteboard |
| **Session 5: Embodiment and detail design** | To agree on a concept and develop some detail such as shape, components and materials |

Similarly to the other pilot, a LabSpace unit was created as a 'home' for the participants, and the unit contained not only resources and links proposed by the organisers, but also

summaries of discussion sessions published as these unfolded as well as asynchronous forums hosting discussion and feedback-sharing amongst all. In total, 5 main design discussions took place, and two familiarisation sessions, also convened by the tool specialist, were run prior to those. The unit was created using the in-situ editing features made available to the researcher and the main subject specialist. The student's view of the unit's Homepage is shown in figure 7 below.
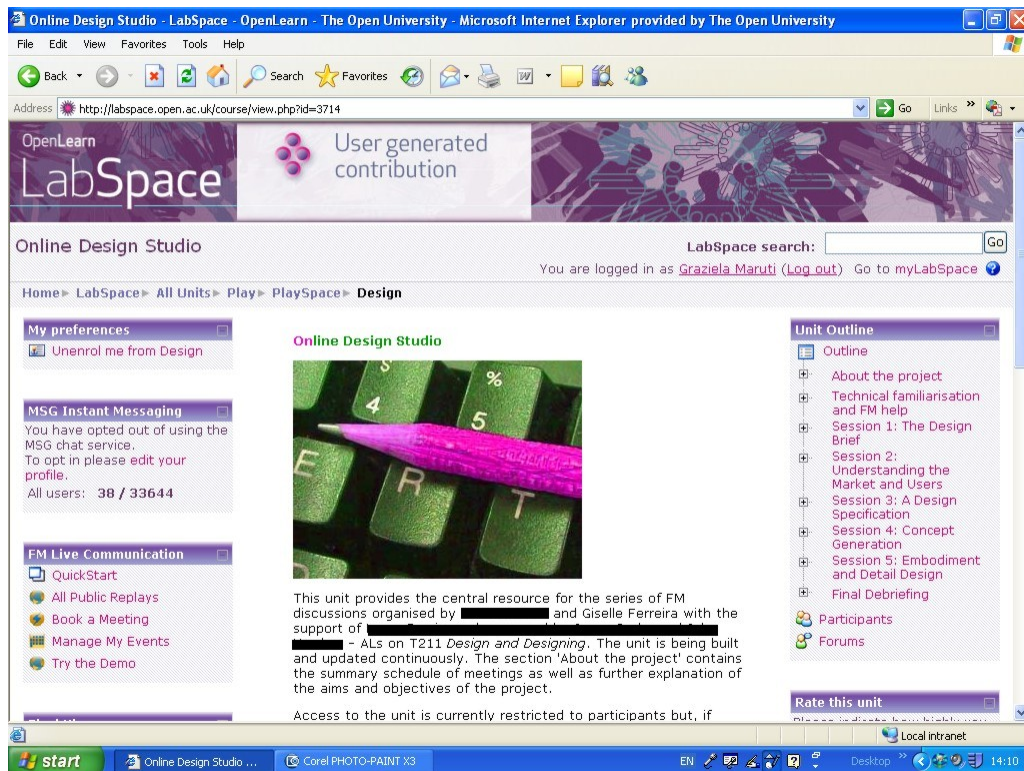


**Figure 7: Homepage of the LabSpace unit for the *Online Design Studio* Pilot [11]**

A description of the main sessions from the perspective of subject-based teaching has been compiled by Schadewitz *et al.* (2008), where a particularly exciting outcome of this project is advanced: the creation of a potentially marketable idea around the problem agreed and tackled by the group (ways to take this forward are being investigated by one of the participating ALs).

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[11] Please note that this screenshot was taken in early July 2008, which displays the availability of MSG, a messaging tool. This tool, however, is no longer supported by OpenLearn and has been withdrawn from the site.

Participants in this pilot were also provided with a token 'participation pack' by OpenLearn (containing a Webcam, a headset and a Flash Memory Pen), but a limited amount of initial learning resources was volunteered, as searching and selecting resources for discussion by the group was part of the expected contribution of participants. Similarly to the previous study, the LabSpace unit remains accessible by participants only, as do the FM session replays. Also, an OER based on this experience, to be made openly available on the LabSpace, was originally planned to be developed with basis on the intelligence gathered in the pilot. However, gathering feedback was not a straightforward exercise, and it was felt that further experimentation and data collection would be required to support a more substantial study consistent with work in the area of Design Education, specifically. Nevertheless, building on some of the lessons learnt in this pilot as well as new ideas around the notion of an 'online studio', further work is currently underway following a successful bid for funding to the Joint Information Systems Committee, JISC (please refer to the 'Project Outputs' section for a brief description of the ATELIER-D project).

*Data*

This pilot generated the following data (also in addition to the researcher's observation notes):

- Two 1-hour technical familiarisation sessions on video (with server-generated minutes available via the relevant meeting Homepage)
- Five 1-hour subject-based discussions on video (with server-generated minutes available via the relevant meeting Homepage)
- 35 text-based messages exchanged in the asynchronous forum for students
- 30 text-based messages exchanged in the asynchronous forum for organisers
- 97 email messages (including messages concerning the organisation and support of the experiment)

Some of the data collected by the FM server (linear and polar are diagrams showing the broadcast and chat dominance in meetings) were included in the analysis, as appropriate.

Upon completion of the main subject-based discussions, both ALs were interviewed but only one student was able to contribute to the evaluation (1-hour semi-structured

interviews over the phone, in all cases, following Adams & Cox, *ibid.*). Finally, a short debriefing session with the lead subject expert took place (½ hour in person).

## 5. DATA ANALYSIS AND FINDINGS

Although the original idea was to adopt the method of grounded theory, which Adams *et al.* (2008) suggest as 'especially useful for complex subjects or phenomena where little is yet known', this was partially hindered by constraints of time and access. Whilst the process of organising, supporting, observing and analysing the pilot projects allowed for less conflation of coding stages, which, in turn, informed the thematic analysis carried out around the site forums, there were limited opportunities for triangulation and further data collection. Nevertheless, a number of themes emerged from these restricted cycles of data gathering and analysis, opening up many possibilities for future work to enable more sophisticated theorising.

Figure 8 shows the themes that emerged from this study, themes that appear to constitute core elements to sustained engagement with OERs. The themes are not independent from one another, and, as noted above, each is deserving of further, more detailed exploration. Interestingly, each of the themes has emerged as relevant not only from the perspective of learners but also from that of educators, and this has prompted a structure for discussing findings based on the themes themselves rather than separate accounts.
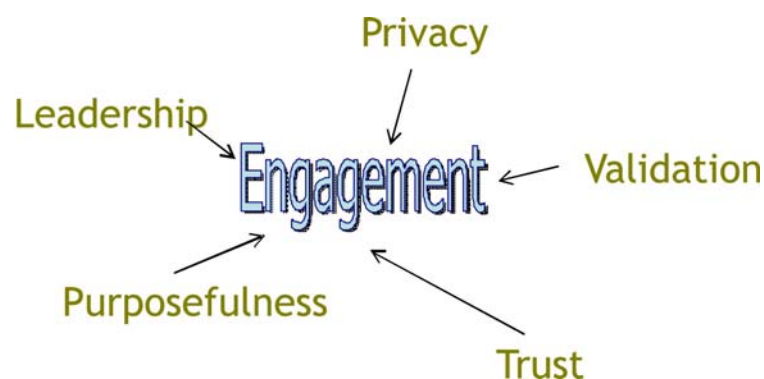


**Figure 8: Emerging themes**

**Validation**

As expected, the issue of 'validation' has been a major category to emerge in this study. The certification of learning that takes place within an OER environment remains an important practical question for the movement, and OpenLearn has received many requests for such certification (although, in the public forums, some requests appear related with a general misunderstanding of the purpose of the site, possibly related to indexing and design issues). [12] The feedback collected in the pilots, however, suggests that certification may not be the only source of validation of a learning experience in this context. Participants (learners and teachers) were generally very positive regarding the lack of 'formal assessment' in the shape of a graded assignment, indeed expressing various degrees of 'contentment', 'relief' and 'feeling free to just go with the flow'. As put by the convenor of the 'Ethics' pilot in the final session:

> 'I haven't had to assess your learning.  So that, of course, gave me a great deal of freedom. There weren't, as we have in education these days, learning outcomes that we were targeting. I guess I did have particular views in mind, but they were more to do with attitudes and awareness than things that could be easily tested.'

A short discussion on the merits of learning outcomes followed this statement, leading, interestingly, to an overall agreement that 'a more formalised process of taking-stock' might be helpful. This idea emerged repeatedly in other conversations (albeit articulated in different ways) also within the context of the 'Design' pilot, even though learners, in particular, were not entirely sure about the shape that this process might take, and in what ways it might be different from the assessment mechanisms they are already familiar with. This creates an interesting paradox: whilst willing to dispense with gradings altogether, learners still saw an irrevocable link between grading and certification.

Although feedback indicates that certification might be a desirable outcome of (and purpose for engagement in) the process – 'it would be nice to have a piece of paper at the end', as put in an interview – further sources of validation in the sense of justification and support were suggested. Interestingly, despite the presence of the specialist/teacher/facilitator in the pilots, not a usual feature of OpenLearn, and despite

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[12] This is an issue to be tackled in the next Stage of the initiative – please see the OLNet project proposal at http://kn.open.ac.uk/public/document.cfm?documentid=11734

the relatively structured nature of the experiences, participants not only qualified but indeed valued the experience as 'informal'. In particular, the ideas of 'simply belonging' – to a group of 'like-minded people' – and 'being part' – 'in a cutting-edge experiment' emerged not only as appealing but, crucially, as valued justification and confirmation of the experience for participant-learners and teachers alike. 'I felt I was truly part of a group, we really shared things in those discussions', commented one of the participant-learners in the 'Ethics' pilot.  This suggests a conceptualisation of 'validation' as intrinsic to the experience itself rather than an end with the experience as a means.

Another interesting aspect of 'validation' is related to the institutional location of OpenLearn (please see Ferreira (2008) for a more thorough discussion). Staff engagement with the initiative requires subtlety and diligence to obtain, partly because of the onus it imposes on already busy professional lives, partly because perceived top-down pressures to engage do not necessarily provide for a productive strategy. Nevertheless, the experience of these pilots illustrates that it is possible to engage staff, lending strength to the idea that small initiatives may provide the seed for more significant contributions (please see 'Project Outputs' section) to support broader institutional change. The pilots suggest ways in which OpenLearn can contribute to support innovation and development in mainstream course production whilst serving a broader purpose still consistent with the institution's agenda. This provides a powerful source of validation for staff as it creates the opportunity for activities that are directly meaningful to their own professional practice and interests to be carried out, activities that might not otherwise be possible within the constraints posed by mainstream course development.

**Privacy and trust**

Privacy and trust are two vast areas of research from a range of perspectives and within a range of contexts including, in particular, CMC. Although this study did not explicitly set out to examine these issues, questions were posed quite early in the research that affected its design, and, throughout the analytical process, the areas emerged as relevant themes to the question of engagement with CMC within an OER environment.

Both pilots included in their original design the idea of creating OERs to share the experience with a broader audience, but this proved to be less than a straightforward idea. The proposals put forward to potential participants explained the location of the projects

within a broader investigation in the area of engagement with OERs (as well as an experiment in the particular subject area), implying open access (albeit non-participatory) by others throughout the process. In both cases, the idea was to create, subsequently to the discussions, new versions of those units informed by the lessons learnt, to be shared with other practitioners in the relevant areas. Whilst participants implied awareness of this aspect of the projects, as indicated by their willingness to take part, a number of questions emerged. The original list of resources selected for the 'Ethics' pilot included two pieces of copyrighted materials, and the decision was made that, at least during the discussions series, the LabSpace unit and relevant FM replays would be password-accessible only, with the password distributed exclusively to the participating group. However, specific requirements imposed by the Student Research Project Panel [13] meant access to both discussions would need to be restricted. Although OpenLearn and FM inform users in their 'Terms and Conditions' (online at http://openlearn.open.ac.uk/mod/resource/view.php?id=15 and http://fm-openlearn.open.ac.uk/mxbooking/terms.php, respectively) that contributions to forums and meetings are, by default, made public since OpenLearn is an open-access space, the Panel required that written permission be obtained from all participants individually prior to making materials (messages, names, images) public. This is consistent with the requirement for anonymity in research reports, but it did raise interesting questions as the pilots unfolded, and further discussion on the question of 'going public' revealed a number of concerns.

Despite the repeated reminders pointing participants to the 'Terms and Conditions' documents, none of those who were interviewed were able to confirm being entirely aware of the content of either documents. Whether this is the case with general users of the site/tool is a difficult point to clarify, although it would be unwise to assume that these users have little or no concern for privacy questions, as perhaps illustrated by the use of pseudonyms and alternative images in place of profile photographs that is common practice in may discussion-oriented Web sites. Nevertheless, 'upon reflection', all of the participants interviewed acknowledged a lack of previous consideration of potential implications of having their messages, sometimes containing relatively personal information, and video (albeit of relatively low quality) online on an open-access basis. This supports the idea that, although 'the internet should be considered a public space,

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[13] The Panel 'was set up in order to ensure that Open University enquirers, students or graduates are not asked to participate in institutional research that does not meet University Guidelines' (SRPP 2007).

people often use it as a private space' (Barnes, 2004). In the particular case of OpenLearn, questions of privacy cannot be entirely separated from questions of trust inasmuch as the OU is a well-regarded institution and provides, perhaps, powerful trust-warranting properties (Riegelsberger *et al.* 2007).

The 'Ethics' pilot, in particular, was characterised by a number of instances of self-disclosure, some perhaps of greater magnitude and impact than others. This is not inconsistent with one of the main themes that integrate the conceptual framework underlying the series, namely, the role of emotion in ethical decision-making. Although the group as a whole did not arrive at an agreement on whether their LabSpace unit should be made public (with the understanding that the copyrighted materials would be removed), a question raised also in the final session, none of the participants who were interviewed were willing to agree to outright publication: 'I'd need to have a look first'.

Although 'a rapidly increasing body of … evidence suggests that CMC and general Internet-based behaviour can be characterised as having high levels of self-disclosure' (Joinson 2003, p.130), it is interesting that all of the participants interviewed claimed to have quickly overcome any feelings of self-consciousness within the videoconferencing environment despite other expressed concerns. It is not clear, however, whether concerns were effectively the outcome of the discussions themselves, once awareness was raised following the institutional intervention. This question is particularly important in respect to the 'Ethics' pilot, which set out to discuss related issues as an explicit aim. Interestingly, however, although the 'Design' pilot offered a different context altogether, the interviewed participants were equally reticent regarding opening access to the records of their experience.

**Purposefulness**

A core question concerning engagement is that of purpose: why engage with OERs in the first place? This is not necessarily a trivial issue. As sources of information, OER initiatives compete in an unlevelled field with other providers that may offer a much more immediate appeal (e.g. more intuitive navigation and/or search features, piecemeal-like presentation or more interactive features), even if they lack the 'authority' conferred by institutional or expert endorsement. Why choose to engage with OERs provided by a HE institution rather than anything else freely available on the Web?

It is interesting that, whilst OERs rely strongly on the availability of the Web, this availability has been contributing to a generalised dispute over the meanings and significance of 'expertise'. Despite intense criticism (e.g. Keen 2007), rhetoric supporting 'the wisdom of the crowds' (Surowiecki 2004) contributes to a growing distrust of experts and expertise, threatening what McWilliam (2005) labels the 'credentialer' role of institutions. As Edwards *et al.* (2004 p. 55) point out,

> 'In the media and elsewhere experts and expertise have become subject to greater distrust … standards of competence are developed upon the basis of evidence of what already competent practitioners do. Assessments and curricula are built on those standards, the logos for which stands in sharp contrast with the more reified, "arty-farty", "trendy" theory or, even worse, "jargon" of experts.'

However, different aspects of academic practice appear inscribed in the resources being made available by OER initiatives, regardless of how carefully resources may have been fashioned for self-study without support, which is the case on OpenLearn. It is perhaps not a coincidence that 'many registered users have a connection with the OU' (registered or potential students) (Goodwin, 2008). [14] Indeed, all of the forums examined include messages requesting information on particular courses ('I'm about to start course XYZ. Has anyone out there studied that?'), and some include messages asking whether extracts of a given course are to be made available on the site. Sustained discussion, however, does not seem to have developed around such prompts (indeed, many of these messages remain unanswered), which suggests a predominant use for the forums as 'information gathering' tools rather than a platform for peer-supported learning.

From a certain perspective, this reveals some difficulties implied in the idea that 'learning communities', actively engaged in learning with OERs, can 'spontaneously' form around such resources. As suggested above, OERs embed aspects of the academic practices that surround their production, which implies affordances that are consistent with those practices. Indeed, much discussion took place within the project team regarding how to structure the 'content', and the topic areas that emerged from these discussions

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[14] The forthcoming *OpenLearn Research and Evaluation Report* will include more up-to-date data and associated discussion of user types and purposes for using OpenLearn, but in this study I was concerned with sustained engagement with CMC tools, not occasional use or browsing of 'content'. This report should be made available via the link http://kn.open.ac.uk/public/workspace.cfm?wpid=8776

represent, to a large extent, a compromise between the existing disciplinary structure within the institution and a wide-ranging group of assumedly general interest areas. Indeed, as Edwards *et al.* (2006, p. 6) point out, 'as long as there are educational institutions, then there will always be curricula and these are always a selection from the social orders of which they are part'.

Consistently with the affordances of the Moodle platform itself, the sites are structured around units of 'content' (Moodle 'courses'), with communication and interaction as features that are subsidiary to this 'content'. Indeed, further discussion revolved around how to structure the units themselves, but the notion of re-structuring material around 'activities', an option afforded by Moodle, was rejected as unviable *vis-à-vis* the resources in terms of academic (pedagogic and subject) expertise required to support what would be, in most cases, an extensive 'transformation'. [15]

Delving into site design issues was not within the remit of this study, but the issue remains that the sites provide specific affordances amongst which communication and peer interaction appear as secondary possibilities. [16] These, however, are essential to group/community formation and maintenance inasmuch as they allow purposefulness to be expressed and shared. The many cues for self-reflection and discussion with others included in the learning resources do not appear, in themselves, sufficient prompts to enable community formation outside the original context of those resources, namely, supported distance learning in HE, and OpenLearn may have grappled (although this is difficult to determine) with the issue of 'lurking' that is so essential to discussions on how to encourage online participation (e.g. Preece *et al* 2004). Indeed, in outlining 'communities of practice' as groups that cohere in three dimensions – 'mutual engagement; a joint enterprise and a shared repertoire', Wenger (1998 p. 73) highlights the role of shared purposefulness as opposed to that of 'shared purpose'.

Shared purposefulness clearly characterised each of the pilot projects. Participants reported a 'shared something', 'above and beyond' the number of different purposes

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[15] 'Transformation' is the term adopted on OpenLearn to represent the re-purposing work carried out by the project. Please see Lane (2006) for more details.
[16] Although feedback in this area was not explicitly asked from participants, all of those who were interviewed noted on having had difficulties navigating the site and locating specific items, especially the asynchronous forums, within it. Some of these comments were offered in the asynchronous forums, but they were also raised during the 'letting-off-steam' stage of the interviews (Adams & Cox, *ibid.*).

reported for their involvement, which include networking ('to meet like-minded people'), professional development ('to learn about topics relevant to work/studies') and development of IT literacy (learning how to use new tools). Indeed, the purpose of meeting others was wide-spread amongst participants in both pilots, and two participants in the 'Ethics' pilot reported having emerged from the experience with a 'true feeling of knowing the others in the group'. Variety of purposes, therefore, does not seem to imply a lack of 'something in common that binds us together', as put by one of the participants interviewed. It was, however, the opportunity to discover this 'something in common' that was particularly valued by participants, even in the face of different purposes, conflicting agendas and mutually-excluding beliefs. [17] This is not to say that there was no purposefulness or purposes underlying the exchanges in the site forums, but to highlight that there seems to have been no *finding out* or clear establishment of this amongst users. This leads to the last of the broader themes that emerged from this study: leadership.

**Leadership**

As noted above, there is strong support in the literature on CMC in education to the role of 'moderation' in encouraging online participation and fostering productive work. Palloff & Pratt (2007), for example, suggest that 'the key is to employ a number of means by which community can be formed, developed and sustained. The creation of community in the online class is not an "if we build, they will come" situation'. Salmon (2003 p. 12) agrees: 'networked computers can provide vehicles for learning materials and interaction, but students still need the "champions" who make the materials come alive'. Her 5-stage model of online learning (*ibid* pp. 24-50) highlights the role of 'moderation' in fostering development beyond a process of simple information exchange towards independent and responsible learning. In a comparative study of online tutorial strategies employed in asynchronous conferencing, Painter *et al.* (2003) conclude that 'the least interventionist strategy in terms of tutor-response and task setting resulted in the least productive conference discussion in terms of both communicative interaction and academic development'. This conclusion is in agreement with Ess' (2000) as well as Gilbert &

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[17] Interestingly, in a study of motivations for participating in the Open Source Software (OSS) movement, Hars & Ou (2002) report on a variety of purposes (split into a pair of polarised categories, namely 'internal' – including 'intrinsic motivation' and 'altruism' – and 'external' – including 'expected future returns' and 'personal needs'), but a shared purposefulness appears to permeate the development of clearly diverse group. It is perhaps unwise to stretch an analogy between OERs and the OSS movement, but it is equally possible that questions regarding motivation (rather than motivations) in one area might help to shed light on the other. This provides an interesting theme for future research.

Dabbagh's (2005) observations. Within a clear description of the requirements for the development of an online learning community, Vassileva (2004) suggests that 'it is necessary to ensure some means of control of the emerging behaviour of the community, and to steer it towards worthwhile goals and productive interactions'. These are but a few examples: albeit a relatively recent area of inquiry, the related literature is already extensive. But the question remains of whether claims and findings such as these are relevant to the context of OERs. Is there a place for 'moderation', 'facilitation' or, perhaps, 'tutoring' within an environment so strongly influenced by a rhetoric of a 'knowledge society' (Geser, 2007) and 'self-organisation' (Wiley, 2007)?

A core feature of different descriptions of the 'online moderator' is that of providing direction as well as keeping the focus and momentum of discussions, with much less focus on subject expertise than would be 'traditionally' expected from individuals fulfilling a teaching role. Interestingly, feedback from participant-learners in both pilots suggests that considerable value was placed on the availability of specialists or experienced professionals, with special emphasis on subject knowledge. In the 'Ethics' pilot, in particular, participant-learners reported having welcomed 'the unique opportunity to have access to a knowledgeable specialist', as encapsulated in an interview remark. Value, however, was not assigned exclusively to the subject specialist, but also to the tools specialist, who provided a measure of scaffolding in the early stages of the project, as well as to fellow participant-learners, for their perceived knowledge, experience, enthusiasm, 'courage in revealing so much about [themselves]', [18] or contributions in terms of 'forcing' opportunities for group discussion by asking probing or even challenging (to the specialist) questions.

Interestingly, mishaps with the technology itself were reported, in the final session and in the interviews alike, as having fostered 'the best bits of discussion', rather than unwanted or unhelpful disruptions to the ongoing process. This is profoundly meaningful. Unexpected events, either due to problems with the technology (e.g. server limits) or to uncertainty on the side of participants on how to behave or use the technology indeed

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[18] As noted under 'Privacy and Trust', there were several instances of self-disclosure within this pilot, including one within the discussion on loyalty, where one the participants recounted a professional experience that prompted a major re-evaluation and change of life direction. This took place in the asynchronous forum within the LabSpace unit, and prompted an interesting discussion on questions regarding courage and behaviour in the face of conflicts of loyalty. Feedback in interview with the other participants suggests that this was a turning-point in the perceived development of the group.

provide interesting disruptions of the balance of power within the group. In the case of the 'Ethics' pilot, the planned structure for the sessions was strongly specialist-driven, as illustrated in Figure 9, but issues with the technology provided a disruption to the specialist's more 'traditional' lecture-based mode of communication.
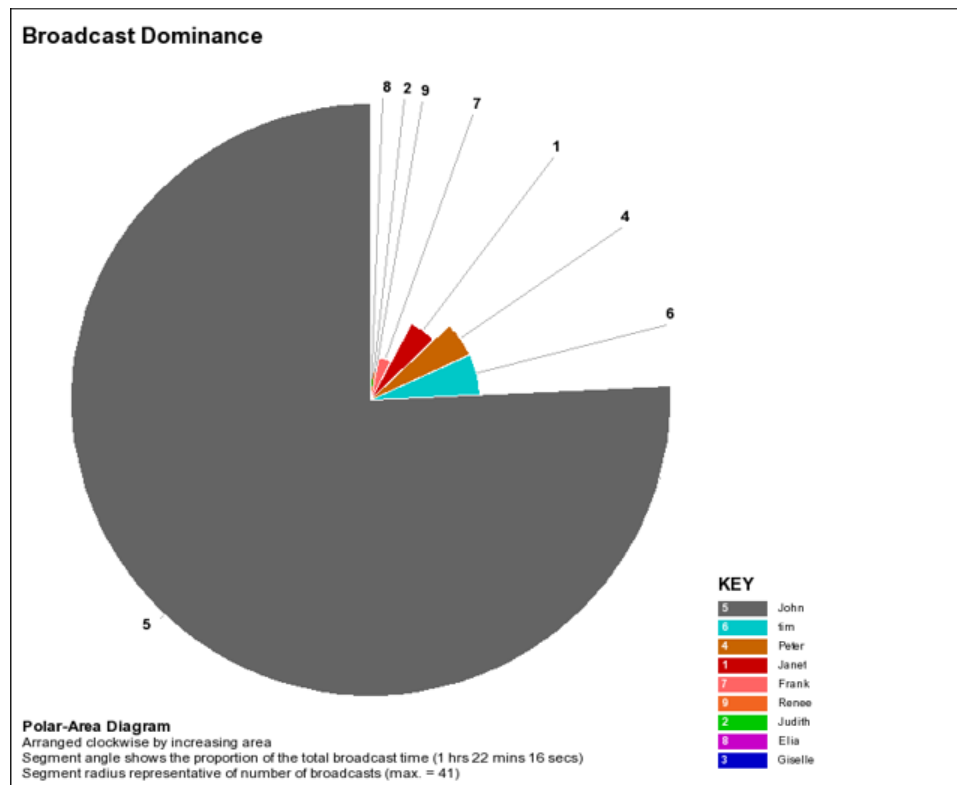


**Figure 9: Polar diagram showing the relative time used by each of the participants in the first session of the 'Ethics' pilot**

Most of the sessions counted on a previously-prepared set of slides that provided a framework for the discussions, but the third session took, by necessity, a different shape. Although the slides were distributed to the group by email during the session, with the text chat being used to advise participants and guarantee they could all access the images (amongst other commentary), they did not play the same role in that session as in the others. Indeed, that particular session was reported as 'one of the most interesting' by virtually all of the participants. Another interesting example of 'disruption' of the lecture-based dynamics is provided by the discussion around the video clip available on YouTube, which took place in the second session. The clip takes the shape of a 30-second slideshow with voice-over, in which a particular ethical question is presented (but

no sort of 'answer' provided). Despite its short duration, it sparked lively discussion to which all participants contributed, later on reporting on the discussion as a particularly 'exciting' moment in the discussion series. This dramatic change of pace is shown graphically in Figure 10 below; the discussion of the video starts at about 22 minutes into the session, and the figure illustrates the dialogue that took place for over 20 minutes.
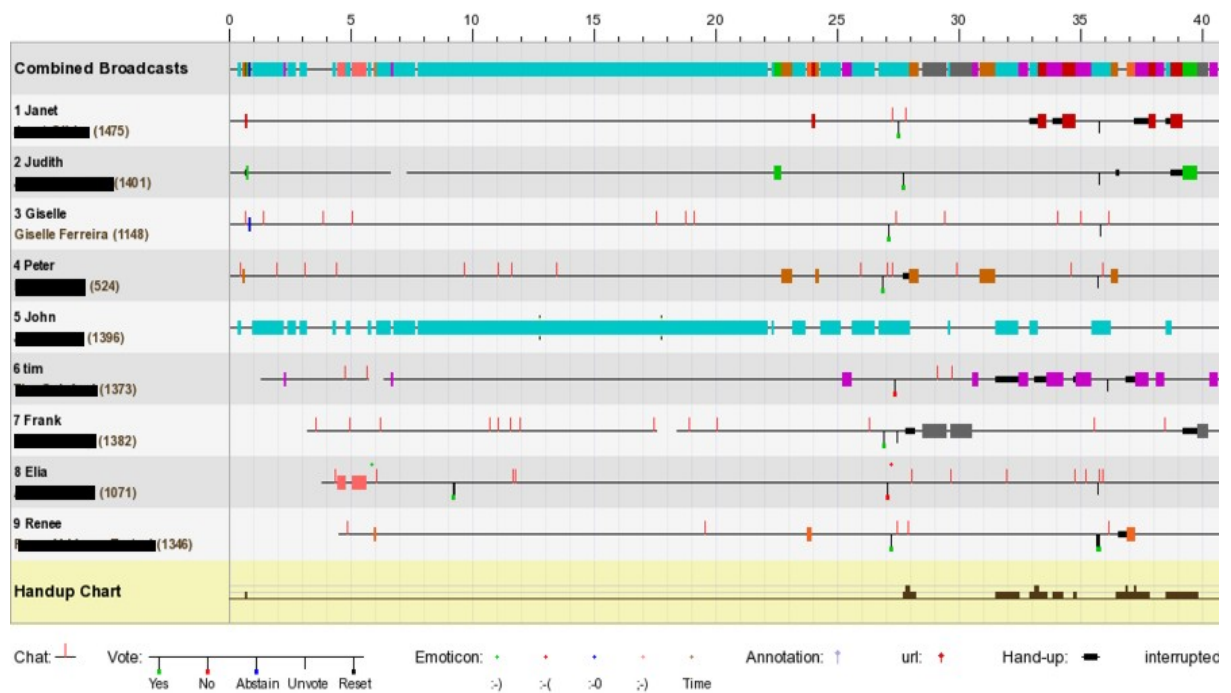


**Figure 10: Linear diagram of the first half of the second session in the 'Ethics' pilot.**

Feedback from the participants in the 'Design' pilot was consistent with the observations above in that value was clearly assigned to individuals' contributions to the group. Figure 11 shows the relative time used by participants in the second discussion session in this series. This suggests a more interactive, participatory dynamics than that suggested in Figure 9, although participation here was clearly not egalitarian. Indeed, the participant-learner interviewed upon completion of the discussions took issue with the presence of 'too many members of staff', including four subject-specialists. As suggested above, it is possible that participant-learners in this pilot did not entirely grasp the 'studio' idea underlying the proposal (it is equally possible that, to facilitate this grasping, much more preparation and, perhaps, meta-discussion including all participants might be required), as broadcast dominance in all sessions weighed heavily on the side of staff, and this raises

questions regarding perceived authority and its role/impact in the dynamics of the group. It is relevant to note that the pilots did constitute very different locations, locations which invited participants to present themselves in quite distinct ways ('professionals' in the 'Ethics' series, 'students' in the 'Design' series).
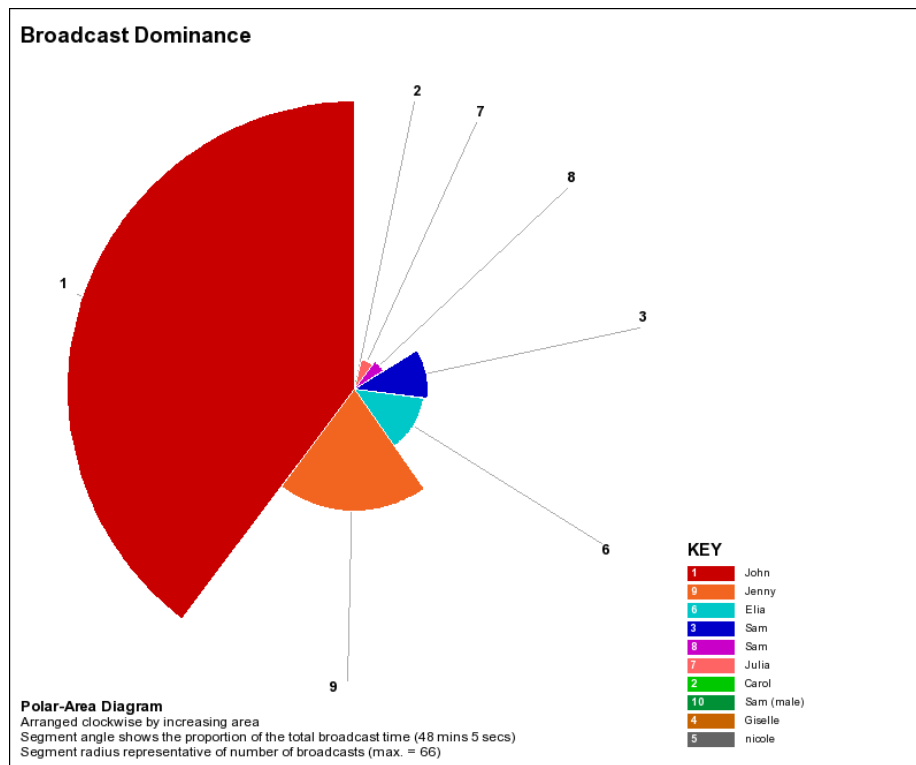


**Figure 11: Polar diagram showing the relative time used by participants in the second session in the 'Design' pilot**

In both pilots, however, participants agreed in that they were all involved in tentatively charting new territory as far as behaviour protocols are concerned. [19] FM is a multimodal tool, and initial planning of the pilots focused on the use of its video-based mode, whilst further features are available that participants gradually adopted as the experience

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[19] From a certain perspective, the 'Design' pilot was less 'successful' as participant-learners dropped out gradually, whilst the other group remained throughout the series, despite occasional absence due to personal circumstances. It was not possible to ascertain the specific reasons for this drop-out, with the exception of the first participant, who did advise the organisers. Throughout the process, however, feedback was freely shared on the asynchronous forum in the LabSpace, and a tentative picture could be drawn from those fragments by Schadewitz *et al.* (2008). It was certainly the case that participant-learners here were much less forgiving of technology 'mishaps'; also, feedback suggests they expected a single 'moderator' along the lines of the role played by ALs, and they didn't seem to clearly take onboard the 'design studio' philosophy underlying the experiment.

progressed. The text chat, in particular, provided, in both pilots, a channel for a number of different exchanges: 'whispered chat' in which humorous and 'off-the-cuff' remarks were exchanged; requests for clarification; probing questions; register of reactions, emotions and otherwise fleeting thoughts; feedback to main speaker without interrupting the flow of the main discussion. All of these were exchanged against the video-led discussion on the foreground, evoking varying reactions. Whilst some of the feedback suggests that the text chat much contributed to the process of familiarisation with one another in the group, all participants reported on some confusion created by the need not only to attend but to be able to respond to cues in more than one channel simultaneously.

The question of cues is crucial. Although participants who presented themselves as IT-literate generally supported the idea that 'familiarity makes the technology disappear', as put by a participant-learner, the issue remains that both pilots confronted participants with a new context enabled by a new tool. A number of points related to the tool itself were raised. Whilst the tool's robustness is partially guaranteed by its simplex mode of operation (one speaker at a time within a queuing system) and the use of still (albeit frequently refreshed) images for participants who are not broadcasting, some participants took issue with the lack of facial and gestural cues that these technical solutions imply. More experienced text chat users took issue with the limited range of emoticons available *vis-à-vis* this lack of visual cues. [20] In the 'Design' pilot, especially, participant-learners were invited to use the whiteboard, which added to the complexity. [21]

Interestingly, a number of suggestions related to cue-giving and interpretation were put forward that reveal wide-ranging expectations regarding leadership not only on the part of 'moderators' but also of other participants. One idea was that of co-moderation to support different channels within a session, with a secondary 'convenor' assigned, from within the group, as session administrator (e.g. saving images created on the whiteboard) and reporter to the main convenor. Another was the widespread perception that the main

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[20] On the other hand, organisers agreed that the available cue-management features make the tool a much better choice than phone conferencing, where the face-to-face group tends to dominate, which raises questions concerning the role of individuals' background and expectations.

[21] All of the participants interviewed in both pilots took issue with the mechanics of using text chat, even though some presented themselves as 'good typists'. One extra issue raised in the 'Design' pilot was the relative lack of precision in the types of drawing enabled by the whiteboard, in contrast with the use of dedicated design tools (software and hardware). Indeed, although the pilots provide a very small sample, they suggest that disciplinary/subject differences may play a vital role in determining if and how FM is used, also because, between the pilots, the expectations of participant-learners were clearly different in respect to technical support and training in the use of the tool. This might provide an interested topic for future research.

convenor needs to fulfil the role of 'frequently cuing discussion' with a view to getting all participants involved. However, rather than simply adapting techniques used in face-to-face, the idea was for the group as a whole to adopt what amounts to a reflection-in-action approach (Schön, 1987) in which session replays would be used to identify 'best practice', dedicating some time within the corresponding subsequent session to a meta-discussion. This is an interesting idea inasmuch as it reveals a questioning of whether what is known about group dynamics and group work in face-to-face situations is applicable to online environments, a questioning that underlies McConnell's (2005) interesting study of the dynamics of e-learning groups. It is also notable that concerns with critical mass were less common than the idea that discussions over videoconferencing indeed have a 'ceiling number' beyond which the discussion becomes unmanageable (for convenors) or uninteresting (for those who participate less).

Both pilots were clearly structured around specific tasks that, whilst requiring a measure of individual preparatory work, were essentially designed to foster discussion and peer-collaboration. Feedback regarding this structure also suggests the importance of leadership. All participant-learners, in both pilots, placed clear value on the planned structure and direction provided for the discussions. Whilst some of these individuals presented themselves as experienced learners and/or professionals (in areas related or not to that of their respective pilot), with a few presenting themselves as 'not very confident' (in different aspects of the experience, or as individuals, when in private conversation with the researcher), all invariably valued the idea of 'stepping stones' guiding their work. Indeed, the overall experience of these pilots strongly supports the idea that 'leadership' is essential to learning, an idea further supported by the clear differences between the types of conversations carried out in these pilots and the message exchanges in the open site forums. Apart from some meta-discussion contributed by individuals clearly involved in learning technologies design, [22] none of the forums examined included examples of discussions delving into 'content' in any way comparable with the work carried out by participants in the pilots.

The observations above may be understood as support to the idea that the 'moderator's role' is important to engagement with CMC also in an OER context, but it would seem that the role emerges, in this context, in a different guise. Indeed, it emerges as multiple

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[22] Also, some (unfocused) discussion developed in reply to a request for feedback posted by one of the OpenLearn researcher's (http://openlearn.open.ac.uk/mod/forum/discuss.php?d=980).

possibilities of leadership. Wenger claims that 'the kind of coherence that transforms mutual engagement into a community of practice requires work', and that 'the work of "community maintenance" is … an intrinsic part of any practice' (Wenger, *ibid* p. 74). [23] This 'work' is that of leadership, but it is possible that it can take many shapes beyond that of 'personified leadership', the 'leader' embodied in the 'moderator', 'teacher' or 'subject specialist'. This study suggests the prospect of leadership as a *process* which, while entailing a particular role, entails also the possibility that this role may be taken up, at different times, by different participants in the broader group processes.

## 6. CONCLUDING REMARKS AND FUTURE WORK

In short, this study could be viewed as providing a contribution to enquiries on the impact of OERs in that it brings to light, from within a sample of learning situations across a tentative 'informal learning'/'formal learning' space, a number of boundary issues. Some of these issues concern curriculum, the 'what' that is being learnt, and by whom: who is doing the learning, and who is doing the teaching? Associated issues concern pedagogy and, in particular, the idea of different forms of leadership emerging as an essential aspect of the teaching/learning process.

The idea of shared leadership as a process suggests some interesting questions even if it affords much more detailed investigation. One broad area of questioning is suggested in Figure 12: modelling engagement with OERs. Current thinking in the area is moving beyond the idea of deploying systems and resources for sharing towards the notion of creating 'Open Participatory Learning Ecosystems' (OPLEs) (Atkins *et.al ibid.*), which capitalises on social theories of learning (Brown & Adler 2008) that are consistent with the findings examined here. Understanding the issues surrounding engagement is crucial to the development of OPLEs, and further research in the area could help to create answers to the crucial question of how to encourage and support engagement. The figure provides two potential ways of conceptualising relationships amongst the themes discussed here, but more data is required to support this level of analysis.

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[23] Whilst I have adopted Wenger's concept of 'communities of practice' in this study, this has been done to the extent that the theory's overall 'ahistorical' underpinnings and associated disregard for issues of exclusion (neatly critiqued by Engeström, 2007) have not come into play in my thinking so far.
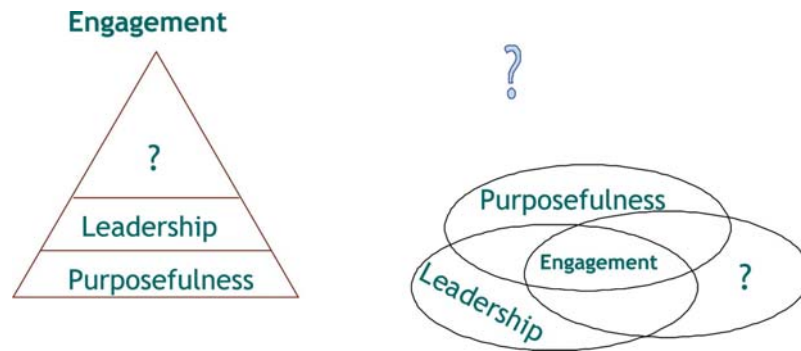
**Figure 12: Potential models of engagement with OERs**

A second broad area of questions concerns the relationship between teaching and learning. Indeed, the role of the 'teacher' *vis-à-vis* the Web 2.0 (and, now, 3.0) was an issue that emerged very early in this study, partially in connection with the researcher's role within the OpenLearn team.

Despite the widespread marketing and media discourses around the idea that 'content is free; it's a matter of editorialising', comments such as these are representative of a position more widely shared amongst those who teach: 'Without a teacher, learning is difficult and, often, impossible'. 'It took me six months to find my way around something I could have learnt in a week, if I had some stepping stones'. 'Even strongly motivated groups of learners quickly collapse without a teacher'. Whilst some of the underlying concerns amongst some colleagues seem to revolve around views that construe 'openness' as a potentially destabilising element, less reactionary views revolve around concerns with 'quality' as something that can be assessed, measured, and used as evidence of 'success': 'quality' of learning resources, 'quality' of the learning experience afforded by the involvement of a teacher and 'quality' of the individuals produced by such experiences. But are these concerns rooted only in politics and its questions of power?

It goes without saying that the relationship between 'teacher' and 'learner' is historically burdened with political significations, but perhaps there is more to be said that sheds new light on the role that the relationship between 'teaching' and 'learning' plays in the process of learning. From a fairly simplistic perspective, the presence of a 'teacher' may be part of the set of expectations that learners have regarding learning, a view indeed strongly represented amongst participants in this study. Despite concerted efforts on the part of educators to help students to become 'independent learners', such views can change only

slowly. The comodification of education may be, unfortunately, contributing to hinder these efforts inasmuch as it is easily perceived as an encouragement for certification to become the primary goal of education, to the detriment of the process of learning itself. The current emphasis on social networking and peer support may offer potential in some ways, but, since community membership retains its essential role, and considering that 'membership' and 'community can take many different forms, peer support cannot itself be devoid of political workings. The experience of the pilots provides some support to that.

On the other hand, in tentatively re-thinking the idea of 'moderation' and detaching 'roles' from 'individual actors', a different picture appears to form, as represented in Figure 13. The figure tentatively represents 'teaching' and 'learning' as two sides of a single process characterised by a dialogic relationship. When 'teacher' and 'learner', the actors, enter into this dialogue within a given context, they occupy, according to specific needs of the moment, the different locations of 'the role of the teacher' and 'the role of the learner'. 'Teachers' can be 'learners', whilst students can occupy 'the role of the teachers' of their own 'teachers', of other 'learners', of themselves. This possibility indeed appears tacitly in constructivist approaches to online learning (e.g. Kear, 2004). If teaching and learning are so profoundly related, teaching can never become obsolete or replaced by technologies, even if 'teachers' are required to be more flexible to deal creatively and critically with the pressures created by technology innovation and their accompanying politics.  From this perspective, a major area of impact of OERs is that their availability is not only creating new challenges but also bringing to light previously veiled tensions and questions regarding identity and boundaries, and this provides a fascinating area for further investigation.
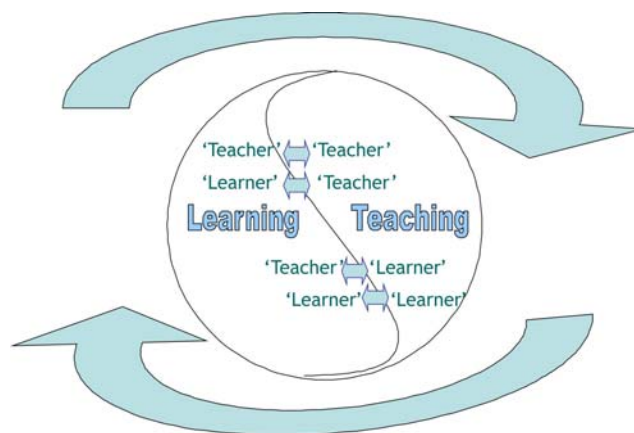


**Figure 13: Potential model of the relationship between teaching and learning**

## PROJECT OUTPUTS

Whilst this report provides an overview of the project and its findings, including questions and areas for further investigation, a number of dissemination outputs have been produced that exploit specific themes and issues arising from this research. These outputs include a number of conference presentations and papers (sole and collaborative authorship, the latter referring to work carried out in the pilots), a working paper included in the *OpenLearn Research and Evaluation eBook* available online and two journal submissions (currently in preparation), as listed below. Importantly, the pilot projects have provided not only a wealth of intelligence and experience but also a number of new ideas that are currently being explored in two recently-started research projects supported by funding obtained from external sources.

**Journal submissions (in preparation)**

Monk, J. & Ferreira, G. M. d. S. 'Dialogue and drama in teaching and learning ethics in technology: a framework'. Appropriate journal to be identified

Ferreira, G. M. d. S. 'Between formal and informal learning spaces: issues in learning at the boundary'. To be submitted for publication in *Higher Education and the Internet*

**Conference proposal (awaiting decision)**

Ferreira, G. M. d. S. 'Open Educational Resources and Teaching in the 21st Century: questions concerning authority'. Submitted to the *International Council for Distance Education Conference 2009* (ICDE 2009), Maastricht 7-12 June 2009

**Conference presentations**

Ferreira, G. M. d. S. (in preparation) 'New spaces, new tools, new roles: two case-studies on the impact of Open Educational Resources'. Accepted for presentation at the *16th International Conference on Learning*, Barcelona 1-4 June 2009. Abstract available online at http://l09.cgpublisher.com/proposals/58/index_html. Final version to be submitted for publication on the *International Journal of Learning*

Ferreira, G. M. d. S. (2008) 'Out with the old, in with the new? Questions concerning the role of the teacher in 21st century education'. Presented at the *Online EDUCA Berlin 2008* Berlin, (Berlin, Germany, 3-5 December 2008). Overview available online at http://www.icwe.net/oeb_special/news101.php; extended overview available online at

http://kn.open.ac.uk/public/document.cfm?docid=12083;       PowerPoint       presentation available online at http://kn.open.ac.uk/public/document.cfm?docid=12082

Ferreira, G. M. d. S. 'What about the teacher? Open Educational Resources *et al*' (2008). In *Proceedings of the EADTU 2008 Conference* (Poitiers, France, 18-19 September 2008) online       at       http://tinyurl.com/bjt9r5.       Also       available       online       at http://kn.open.ac.uk/public/document.cfm?documentid=11599       (full       paper) http://kn.open.ac.uk/public/document.cfm?docid=12084 (PowerPoint presentation)

**Collaborative outputs (conferences)**

Monk, J. & Ferreira G. M. d. S. (2008) 'Resources for an experimental course in ethics'. Poster presented at the *Workshop on Philosophy and engineering WPE-2008*, 10-12 November 2008, The Royal Academy of Engineering, London. Available online in *WPE-2008 Abstracts Book* at http://www.raeng.org.uk/policy/philosophy/pdf/abstract_papers.pdf (p.110) and http://kn.open.ac.uk/public/document.cfm?docid=12049

Schadewitz, N. Garner, S. & G. M. d. S. Ferreira (2008) 'Utilizing FM Software in Collaborative Design-Learning'. Presented at the *HCI for Technology Enhanced Learning. A workshop at HCI 2008 'Culture, Creativity & Interaction'.*  1st September 2008, Liverpool, UK. Abstract available online at http://tinyurl.com/cp2e69   and full text in *Proceedings of the HCI 2008 Workshop*, available online in *Proceedings of the HCI 2008* http://www.lulu.com/content/5445782 and http://kn.open.ac.uk/public/

**Working paper**

Ferreira, G. M. d. S. (2008) 'On the impact of open educational resources: two case-studies'. In *OpenLearn Research and Evaluation* eBook, Milton Keynes, The Open University. Available online at http://kn.open.ac.uk/public/document.cfm?docid=11600

**Further Research and Development**

***A Framework for Teaching Ethics to ICS Students and Practitioners using Open Educational Resources* (£3,500)** Successful bid submitted to the Higher Education Academy, Subject Centre for Information and Computer Science, ICS (Principal Investigator: Giselle M. d. S. Ferreira; Specialist Consultant: Prof. John Monk). This 8-month project (start date: 1 December 2008) exploits findings of the 'Ethics' pilot to inform the creation of a complete study unit in the area of ethics in ICS, to be made openly and freely available online, initially on the OpenLearn experimentation site LabSpace (http://labspace.open.ac.uk) and, after peer review, on the OpenLearn's LearningSpace

(http://openlearn.open.ac.uk). Proposal and further details are available online at http://www.ics.heacademy.ac.uk/projects/development-fund/fund_details.php?id=117

***Achieving Transformation, Enhanced Learning and Innovation through Educational Resources in Design: ATELIER-D* (£180,000)** Successful bid submitted to JISC (Principal Investigator: Steve Garner, Design Group, Faculty of MCT). This two-year project (start date: 1 November 2008) engages six academic staff plus a research assistant and Steering Group in the construction of a virtual atelier that combines well-established practice in Art and Design education with new opportunities presented by ICT to create a new approach to learning and teaching Design. The project is founded on the three core OU Design courses (at Levels 1, 2 and 3) and their integration into a new Design Programme that will include the notion of atelier-based learning at its core. OpenLearn provides the platform and main tools for this project, which will also include amongst its second-year outputs, the creation of Open Educational Resources for wide dissemination of findings and good practice identified in the project. Proposal and further details are available online at the project Website http://design.open.ac.uk/the_department/AtelierD.htm and the JISC project page http://www.jisc.ac.uk/whatwedo/programmes/elearningcapital/curriculumdelivery/atelierd.aspx . Project blog at http://designthinking.typepad.com/atelierd/

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