Personalised records of lifelong learning in the UK: What do our learners want?

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Initiatives funded by the UK Joint Information Systems Committee (JISC) have previously supported the drawing together of learner resources and administrative data in managed learning environment development programmes. More recently, large scale programmes have focused on the potential for integrating institutional record systems to the benefit of the learner as they move between places of study. The JISC funded SHELL Project aims to support the lifelong learner via the integration of institutional record systems and the development of a 'learner record' accessible via a browser based portal. Ultimately, this learner record portal will also be linked to personalised facilities that support personal and professional development planning for the future, made available to learners long after they leave their place of study. But what do learners want from such a portal? This study reports the findings of a series of focus groups held with a range of stakeholders, identifying the aspects that learners deem important. User control of personal data and a customisable portal environment appear to be key desirable characteristics, and the implications for portal development are discussed.

Keywords: lifelong learning, SHELL project; regional MLE

Introduction

In recent years, there have been a range of initiatives promoting the development and integration of managed learning environments in the UK. A managed learning environment (MLE) can be defined as a system that integrates learning resources (such as teaching materials) with management information (such as enrolment data). Early projects in MLE development tended to focus on the technical infrastructure (Boys 2002). However, as institutional MLEs started to emerge, initiatives with a stronger remit to explore the organisational issues started to appear, with ideas of charting and recording learner progress through networked approaches rapidly gaining prominence.

The idea of recording and measuring progress using web based technologies is far from new. Using the specific term 'lifelong learning', Sheridan (1997) describes a web based system in New Zealand that records individual progress including examination results, also integrating other teaching and administrative resources. A significant feature of this learner centred approach was the recognition of the importance of learner control - "if privacy is an issue, an individual may store their academic record on their personal computer" (Sheridan, 1997). Around that time in the UK, the so called 'Dearing Report' suggested that records of academic progress and personal development should be combined into a 'Progress File', consisting of two main elements: "a transcript recording student achievement which should follow a common format devised by institutions collectively through their representative bodies" and "a means by which students can monitor, build and reflect upon their personal development" (National Committee of Inquiry in Higher Education, 1997).

Early MLE projects tended to focus on supporting what was happening primarily within the institution, and the quest for interconnected systems had not gained momentum at that point. A significant development in this field saw the emergence of the "Managed Learning Environments for Lifelong Learning programme" (JISC 2002), which aimed to explore the benefits and issues associated with 'joined up' systems that focused on the needs of the learner. The recently announced £12 million programme to support regional e-learning networks (JISC, 2004) is indicative of the continuing high profile accorded to the establishment of links between schools, colleges, universities and businesses. Regional projects supported by this new programme will facilitate ways in which learners can build and

access their own learning portfolios, with a view to informing and supporting their learning and career decisions.

The focus of interest in the UK is shifting further towards ways in which the learner experience can be 'personalised' within frameworks of interoperable managed learning environments. In what the UK Department for Education and Skills term a 'unified learner experience' (DfES 2003), such concepts of personalised learning take a prominent position. Personalisation can take many forms: one receiving current attention is the development of an individual 'record of lifelong learning'.

But what do learners want from personalised systems that aim to record lifelong learning? How can we engage learners in the traditionally difficult area of personal development and planning via electronic systems? This paper introduces the UK SHELL Project, and reports on work in progress that aims to identify what learners want from a personalised system for recording their achievement in support of personal development planning.

The UK SHELL Project

The SHELL Project is one of two projects funded by the UK Joint Information Systems Committee (JISC) as part of the Managed Learning Environments for Lifelong Learning programme (Yorke, 2002). The SHELL project was launched in April 2002, and is led by the University of Plymouth in partnership with four further education colleges in the South West of England. In phase 2 of the project, local schools will join the partnership.

The project arose out of an identified need to support students undertaking higher education (HE) courses delivered by further education (FE) colleges in partnership with the University. In addition to providing single registration for partnership students and improved access to learning resources, the project aims to provide a permanent personal web portal for learners. It is through this web portal that learners are able to view details of qualifications and modules from courses completed and those in progress. Figure 1 shows a typical rendering of the transcript of formally accredited qualifications, brought together in one 'learner record' via shared business processes between institutions.

Qualification Summary Click ① for full details of your qualification

	Start Date	Place of study	Qualification Title	Qualification Result	Date of Award	Awarding Body
Œ	26.09.2003	University of Plymouth	BA (Hons) in Business Administration	In Progress	Pending	University of Plymouth
Œ	12.09.2000	Cornwall College	GNVQ Marine Sciences	Achieved	12.06.2002	BTEC
0	11.09.1999	North Devon College	GCE AS Level General Studies	Achieved	11.06.2000	EDEXCEL

Figure 1: Sample display of the qualification summary in the learner record portal

The emergent technical infrastructure comprises a learner record database, fronted by a portal providing long term student and staff access to information. The 'learner record' is based on information contributed by all institutions (schools, colleges, university) in the partnership. Learner data is passed to organisations and systems via the SHELL Hub (the message exchange centre) using a software device developed by the project (and termed an 'ioAgent') to provide connectivity.

The role of the ioAgent is to encode data in IMS form for transmission to the Hub. The chosen data specification for the SHELL project is IMS LIP, soon to be defined in terms of a British Standard, BS

8788 (IMS 2004). IMS LIP (Learner Information Package) is an XML schema for representing student record data. In addition, the use of messaging services (such as ebXML Messaging Service 2.0 and SOAP 1.1) aim to provide robust delivery methods.

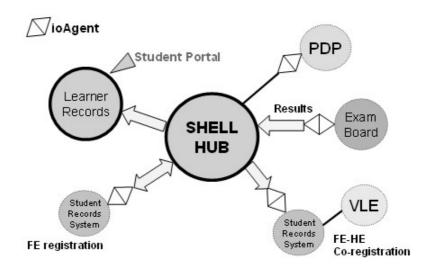


Figure 2: Data transaction within the SHELL Project partnership

The learner record portal

Learner records are to be held in a single database linked to the student record systems within the partnership (as described in Figure 2). The portal will allow learners to have permanent internet based access to their transcripts of formally accredited marks attained within a range of participating institutions even after they have left their place of study.

Ultimately, it is intended that this portal will enable any participant to access a record of their learning in the widest sense, irrespective of the life choices and pathways taken. Ideally, the portal will facilitate the future storage of other records of achievement, personal development planning, and will integrate career building resources such as Curriculum Vitae (CV) or Resume building tools. For example, through integrated links with other web sites, students might in future be able to send job application details by email directly from their web based portal.

Unfortunately, the uptake of systems aiming to record lifelong learning and support personal development and planning could be described as somewhat 'patchy'. Clearly there are technical and organisational issues that arise when sharing data between institutions, due to the differing ways that data is stored and exchanged (see, for example Yorke et al 2004). One cluster of issues encompassing learner expectations and associated judgements of value is especially important. How can such a learner record portal meet the needs of its users? What features would learners value? It is these aspects that form the basis for this study.

What do learners want from a learner record portal?

In order to establish what learners might value in such a portal, a series of focus groups were run across different parts of the project partnership. Participants were drawn from 'AS' and 'A' level, vocational, degree and postgraduate programmes at local colleges, schools, and a regional university. Sample groups were purposively selected in order to provide a heterogeneous mixture, and ranged from young adults (age 14) in school to mature adults who had returned to study later on in life. Although we obtained a (small) cross section of the population, within each group participants tended to be drawn from similar backgrounds.

Participants were recruited by invitation, and this 'self selecting' aspect of the study poses specific problems. We acknowledge that this, combined with a small sample size, may have influenced the results obtained.

In total, approximately 50 learners took part in this study. Focus groups were conducted with both authors present. In some cases a representative or teacher from the local school 'sat in' on the session, but did not contribute to the discussion. This was deemed important where younger learners (i.e. those under the age of 18) were taking part.

Both authors acted as facilitators of the discussion and note takers. It was decided that sessions would not be subject to tape or video recording, as an open and trusting rapport was deemed to be crucial. This was particularly the case where some of the learners were relatively young, and early discussions with their teachers suggested that this may have been a new and potentially threatening approach for these groups.

A brief description of the project set the scene for the focus group discussion, and sample screenshots depicting what the user interface might look like (part of which is shown in Figure 1) helped contextualise the proposed portal. Each group took between 60 and 90 minutes to discuss a series of issues / questions outlined in a research brief. This brief aimed to cover four key themes using trigger questions outlined in Table 1.

	Theme	Questions		
1	Desirable features	What facilities would be useful to you?		
	in the Portal	When (and why!) would you use a lifelong learner portal?		
		Who should be able to edit parts of the learner record?		
		Who should have access to the learner record?		
2	Personal	Have you used electronic tools for PDP processes?		
	Development	How do you record their development planning currently?		
	Planning (PDP)	Should formal qualifications be combined with PDP processes in a		
		lifelong learner record? How should this be done?		
		What other support would you like with planning your personal and		
		professional development?		
3	Communication	What would make a site like this attractive to learners?		
	and promotion	What communication tactics might prove effective?		
4	Position in relation	What similar websites/resources are used by students?		
	to existing web	Would the proposed portal duplicate or be in competition with these?		
	sites / resources	What sites should link to the portal?		
		What links to other sites should the portal include?		
		Should the portal be integrated with another existing website?		

Table 1: Themes and questions used in focus groups

Discussion

Some caveats must apply to the results obtained. The small sample size, in combination with the self selecting nature of the focus groups may have served to distort the results. Power dimensions to relationships between adult researchers and younger learners cannot be ignored, and social expectations in terms of wanting to appear to be a 'good learner' may have asserted an influence to a lesser or greater extent in this study. Nevertheless, a clear sense of need for 'learner control' in addition to a series of pertinent questions relating to the 'perceived value' became readily apparent from the groups surveyed.

It was also clear that participating individuals had varied experiences of recording their achievement in the context of personal development planning. Past experiences of 'Records of Achievement' (compulsory activities in the age range 14-19 in the 1990s in England) were almost always described in a negative light, as typified by the all too common statement that "I took my Record of Achievement to a job interview, but they didn't want to look at it." Fixed template based approaches were invariably seen as restrictive and unhelpful, whether paper or web based. From the work with these groups, a number of further issues emerged, which are discussed under the following broad categories.

Career orientation: A perceived primary role

Many of the contributors saw the primary role of a learner record portal as supporting the development of their CV and/or job applications. In this sense, the portal's main role was seen as a way of maintaining a

record of achievements, skills and competencies. No mention was made of learning processes, and perhaps this is not surprising given that this tends to be a preoccupation of the teachers rather than the learners. Portal functionality that improves employment prospects appears to be a positive driver, and this implies that non accredited and/or informal learning must be recorded too, as summarised by one participant who remarked: "It needs to have everything in it such as skills if it is going to be used to support CV's", or the student who remarked that they "did a health and safety course but there was nowhere to record it in our system".

On a related theme, a commonly held view was that the portal would (only) be used at certain key points, typically these were applications to HE/FE institutions, job searching and career development. Apart from these instances, disappointingly few participants saw value in making anything other than an occasional visit to their learner record. A number of suggestions were harvested regarding ways of making the learner record portal more usable in this respect: such as integrated CV building software and good quality profiling tools to enable learners to match their interests, qualifications and aspirations to career prospects. The possibility of sharing their data with potential employers via automatic submission to 'head hunting' organisations was deemed to be of particular value, as was the ability to see "which companies had viewed my profile".

Editorial control of personal data is crucial

There was virtually unanimous agreement that for a learner record portal to be successful, the user needed to be very much 'in control' of their data. Although it was recognised that details of formal qualifications could not be editable by the user, issues of ownership and flexibility were clearly of paramount importance. Areas of personal control deemed to be important included the ability to edit personal details such as address/telephone numbers. Any suggestions that this could be controlled via a formal data controller (such as the place of study) were strongly rejected. It was suggested that an "occasional email reminder to go and check and update my records" would be of use.

Access control and the sharing of data

There were similarly strong feelings about the levels of access that others could have to an individual's learner record. All participants agreed that those with a direct relationship to the learner (such as a tutor) in the current place of study were entitled to have access to the formal transcript part of the learner record, but not necessarily to areas deemed to be private, such as those relating to personal planning.

There was some variability of response to the suggestion that others (such as parents, staff from previous institutions, administrators) might also have access to the learner's records. (It was clear that not many learners realised that administrative staff usually have access to student records.) Some ideas to address this problem were discussed: a commonly proposed solution gave the user control over who had access to the records via options to define data as 'private', 'public', or 'restricted' (open only to those in a user defined list). In this respect, the key to learner acceptance appears to be to allow users to control levels of external access to the data, although the setting of hierarchies of 'permissions' may well prove difficult to operate in practice due to the level of complexity inherent in such a system.

Nevertheless, it was quite surprising to see how many participants saw benefits in sharing data between and within institutions. A number of responses saw distinct advantages in enabling staff to be well informed of the learner's progress and activity in other areas, as highlighted by the respondent who remarked "we don't feel that they [academic tutors] talk to each other".

The potential was also highlighted for the sharing of learning support needs as learners move from one institution to another (such as dyslexia assessments, or special learning needs). Not all participants were in agreement with this though, reinforcing the point made earlier about individualised levels of access control.

Finally, on this theme of access a degree of uncertainty was also noted regarding the potential purposes to which the data could be used, such as the undergraduate student who asked "Could the student loan company want to use this to get hold of defaulting students at their new address?"

Desirable features of a learner record portal

It was clear that a portal orientated to lifelong learning needs to be able to respond to differing user groups if it is to be judged successful by the target audiences: "We need to be able to personalise our portal pages - we don't use half of the stuff that is on our [school] home page. It just gets in the way."

The ability to change 'skins' (the appearance of the portal layout) was suggested as one way of meeting the requirements of what would inevitably be a diverse age group. Issues of accessibility were also discussed, including the need for user customisation to ensure equality of access for all. In this sense, the location of a lifelong learner record portal on an independent website (as opposed to a particular institution) was welcomed. The use of advanced technologies to render the portal web pages was not favoured: "It needs to be able to work in a café or internet terminal or people won't be able to use it."

A large number of participants suggested that the provision of additional user defined fields would allow them to store different information that was of personal interest. Typical fields deemed to be useful additions included the storing of national insurance numbers, library card numbers, and telephone numbers. The suggestion of a template of permitted fields was dismissed, as it did not allow true flexibility and learner control.

There was a strong sense that there were already "too many usernames and passwords" in use, and this, combined with a predicted sporadic level of access to the portal gave rise to the suggestion that there would be significant problems of remembering personal logon credentials. Suggestions of annual email password reminders did not receive universal acclaim as typified by the participant who remarked that "I can't even remember what the email address I used last year was". Clearly there needs to be a robust mechanism for retrieving forgotten passwords. In a large regional database, there may also be a need to retrieve forgotten user names too - as the need for unique user names will preclude many from having their first choice of login name. Furthermore, the chance of learners being able to choose their preferred user name will diminish with each year of operation as more learners join the lifelong database, lending weight to the argument for a single unique learner number.

A common question revolved around the storage space allocated to learners for their private use. Some participants wanted to be able to store references, letters and testimonials. Others wished to store examples (portfolios) of work, including video and other storage intensive forms of media. In terms of storage, functionality allowing users to download their entire learner record to various media formats (such as CD, ZIP or USB memory device) were seen as vital. Such storage provided by a learner record portal was seen as providing a useful backup: "this would help if we lost our official certificates".

There were other miscellaneous functions that participants saw as increasing the value to the learner. These included a 'favourites' list of personal hyperlinks, which were 'persistent' - i.e. links were stored in the learner record database and were consequently available no matter which browser platform was being used. Other suggestions included personal diaries with the ability to set email reminders for appointments, coursework and job application deadlines. Embedded functions such as postal address, email and telephone number lists were also seen as useful - as these would be accessible anywhere in the world via a browser interface if they were also stored in the learner record database.

Conclusions

For a learner record portal to be successful it needs to meet the needs of learners or it runs the risk of being dismissed as 'yet another initiative', starkly put by the participant who questioned whether this was "just another 'faffy thing' that we are made to do, or is this something for us to use to our advantage?" This inevitably requires a continued focus on the learners articulated needs, rather than the business needs of the institution or employer.

Nevertheless, we appreciate that some of the suggestions outlined in this discussion would inevitably be difficult to implement, such as differential levels of access control. Furthermore, there are implications for standards compliance where features are requested that are outside of the current IMS LIP specification, such as the ability to store user defined fields - a feature that was valued by all of the subject groups sampled in this study. We propose to keep involving the learners throughout the design

and implementation of the learner record portal, but we recognise that some of the functionality that learners seem to value will not be implemented if the project stays true to the original aim of strict compliance with interoperability standards.

Even so, there seem to be some 'easy wins' that can be made. For example, through secure user authentication, learners may be able to edit certain parts of their learner record, and user selectable interfaces (so called 'skins') may serve to increase this essential aspect of user control. Achieving an acceptable level of perceived value is a rather more complex matter, and a focus on these more difficult aspects will define the next stage of this study, with larger samples of learners using the emergent portal.

In addition to perceived value, there are other aspects that are worthy of note. On a final note, a pervasive theme encountered related to levels of staff awareness and acceptance of the learner record portal: "Tutors would need training in this if they were to support it properly. It needs to be supported and explained". As Fullan (1991) cogently remarks, educational change is "technically simple and socially complex", and these difficulties have not yet been adequately resolved.

As the learner record portal develops functionality in response to user requests, the need for local support for learners will increase. It is doubtful that centrally provided support measures (such as online training materials) will prove sufficient on their own. In this vein, there was a clear sense from this study that processes of personal development planning were not currently valued by academic staff. Clearly, for records of lifelong learning to be valued by learners, the attitude of the staff is a crucially important part of the equation that must not be ignored.

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