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**Training in the Digital Age
E-learning Experiences in Preservation**

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Digital tablet, labo.BnF.fr. © Gilles Dantzer

Since the PAC programme has been created in 1992, training is one of its core missions. Former directors, such as Jean-Marie Arnoult, who also ran the BnF Department of preservation, and Marie-Thérèse Varlamoff, gave high priority to training courses, whether it was in the field of preventive preservation, conservation of photos or risks and disasters management.

Our network proved to be efficient too: all of our regional directors, like Johann Maree in South Africa, to whom I would like to pay tribute, succeeded in multiplying training initiatives. Recently, the PAC regional centre of Benin hosted a training course on preventive preservation for 22 librarians and archivists.

To pursue this PAC original mission, we decided to dedicate our latest issue of *IPN* to this theme. As, obviously, it seems not possible to deal with such a large topic in a few pages, our goal is certainly not to propose an overview of all the realizations, even if they are fundamental.

What we chose to highlight in this issue are the new ways of training. Our field, the preservation of the written cultural heritage, is knowing the same changes as the other ones: as in medicine, for example, the continuing education has become necessary. As it is more and more difficult for most of us to “leave behind” our job and responsibilities for one or several weeks of training, distance learning starts playing a larger part. Technologies have evolved too: giant steps have been taken since the time when the school television programme reconstituted a classroom hardly different from the traditional one. New optical supports (CD, DVD) first created interactivity and then the Internet gives the possibility of being connected at any time to a work group session, and “to act”. Theory as well as hands-on experiences have been made virtual, as it is the case thanks to Second Life, for instance, which allows practical exercises that formerly would have required to be “on-site”. Finally, the development of mobile communication technologies, with in the front line the smart phone, permits people to train themselves from very distant places.

This issue is thus proposing some recent and innovative experiences in the learning field.

To end this editorial, I would like to launch a proposal which would consist in listing all the international training actions, methods and actors in our sector. The PAC programme, thanks to the IFLA website, could make an inventory and highlight, area by area, the training initiatives, which are sometimes not known enough, and above all identify the needs. A questionnaire will be soon available on line: all the people interested in that topic will be invited to complete it and send it to us.

We wish you to enjoy reading *IPN* and hope to see you in Göteborg, Sweden, for the next IFLA conference.

Christiane Baryla
IFLA-PAC Director



Robot developed by ISIR, labo.BnF.fr. © Gilles Dantzer

Depuis la création du programme PAC en 1992 la formation a fait partie de ses missions essentielles. Jean-Marie Arnoult, qui fut aussi directeur du département de la conservation à la bibliothèque nationale, puis Marie-Thérèse Varlamoff ont fait une large place aux séminaires de formation, que ce soit dans le domaine de la conservation préventive, de la préservation des photographies ou encore dans celui de la gestion des risques et des catastrophes.

Au sein de notre réseau, nous vérifions constamment l'efficacité de tous les directeurs régionaux qui, à l'image de Johann Maree en Afrique du Sud, à qui je voudrais rendre un grand hommage, ont su multiplier les actions de formation. Récemment encore, le centre régional PAC du Bénin accueillait 22 bibliothécaires et archivistes pour un stage de conservation préventive.

C'est pour suivre ce fil ininterrompu que nous avons souhaité illustrer ce thème. Evidemment le sujet est si vaste qu'il nous faudrait bien plus que quelques pages pour le traiter. Nous avons donc volontairement exclu d'établir un panorama de toutes les réalisations même si elles sont fondamentales.

Dans ce numéro, nous nous intéressons aux nouvelles formes que peuvent revêtir les sessions de formation. Notre champ d'activité, la conservation du patrimoine culturel écrit, vit les mêmes mutations que d'autres domaines: comme en médecine, par exemple, la formation permanente est devenue une nécessité. Pour la plupart d'entre

nous il est devenu difficile de « partir en formation » pendant une ou plusieurs semaines en mettant toute responsabilité entre parenthèses. Aussi l'enseignement à distance est-il devenu incontournable. Les techniques, elles aussi, ont changé : depuis l'époque de la télévision scolaire qui reconstituait à distance, à heures fixes, une salle de classe guère différente de la salle de cours traditionnelle, des pas de géants ont été franchis. L'interactivité obtenue grâce aux supports optiques (CD, DVD) et maintenant la possibilité, via Internet, d'être à tout moment connecté à un groupe de travail, et « d'agir » a transformé la donne. C'est non seulement la théorie mais aussi le « terrain » qui se sont virtualisés, autorisant parfois, comme dans *Second Life* des exercices pratiques autrefois réalisables sur le seul terrain. Enfin, les technologies nomades de la communication, avec en première ligne le *smart phone*, permettent de se former depuis des lieux reculés.

Nous vous proposons donc aujourd'hui de découvrir quelques expériences récentes et innovatrices dans le domaine.

Pour terminer cet éditorial je souhaiterais lancer un appel pour un recensement international des actions, des méthodes et des acteurs de la formation dans notre secteur. Le programme PAC, via le site de l'IFLA, pourrait recenser et mettre en valeur, par région, des actions de formation quelquefois peu connues et surtout élaborer une carte des besoins. Vous trouverez en ligne, prochainement, une enquête sous la forme d'un questionnaire que nous vous invitons à remplir et à nous retourner si vous vous sentez concerné.

Nous vous souhaitons une excellente lecture et espérons vous retrouver en Suède, à Göteborg, pour le prochain congrès de l'IFLA.

Christiane Barylà
IFLA-PAC Director

Learning in the Age of Digital Networks

by **Chris Jones**, Reader in the Institute of Educational Technology, and **Niall Sclater**, Director of Learning Innovation, The Open University, Milton Keynes, UK

The Open University (<http://www.open.ac.uk/>) is the United Kingdom's only university dedicated to distance learning. Through academic research, pedagogic innovation and collaborative partnership it seeks to be a world leader in the design, content and delivery of supported open and distance learning.

The Technology and Learning Research Group, led by Chris Jones, focuses its research on networked and online environments, innovative technologies, emergent pedagogies and on-line learner experience. Read more at:

<http://kn.open.ac.uk/public/workspace.cfm?wpid=1460>

This article tries to provide a way of thinking about new technologies that manages to balance these two conflicting needs. It identifies some current ways of thinking about the changes taking place in universities that are related to digital and networked technologies and to assess their impact. It then goes on to suggest the kinds of choices we may have to make in relation to new technologies at a variety of levels, the personal, the institutional and in terms of society in general. The edgeless university is associated with broad technological change but whether such change is inevitable is still an issue that needs to be discussed.

Introduction

The final years of the twentieth century and early years of the twenty first century have been marked by the rapid rise of digital and networked technologies. Some have even called it a paradigm shift and suggested that it will lead to a dramatic change in the way young people learn (Tapscott and Williams, 2010). As with all commentary on new technologies we should beware of being carried away with the excitement of the new. There is a recurrent innovation cycle beginning with over excitement followed by disappointment and once the reaction has set in against the new it is followed by a move away to yet another new technology, often before a proper assessment and evaluation of the previous cycle can take place. Equally we must be careful not to ignore the profound changes that are taking place and how they may affect universities and learning in society more generally.

A recent description by a UK based think tank *Demos* characterized the kind of university that is emerging from the engagement with new digital and networked technologies as the 'edgeless university' (Bradwell, 2009). The term edgeless is borrowed from work on the city that suggests edgeless cities have the function of cities without being organized in their classic form. In the same way the *Demos* pamphlet suggests that the university retains an identifiable function but the functions of the university are no longer confined to a single institution nor are they confined to higher education institutions more broadly. Over a decade ago Brown and Duguid (2000) identified the core functions of universities as the capacity to grant degrees, to accredit students and to provide the warrant that guaranteed the credentials obtained by the students from the university. They also suggested that the introduction of what were then new technologies would lead to an increased focus on these core functions. The core role remains in the edgeless university but the boundaries to these may alter.

"In general terms the new digital and networked technologies have led to broad changes that affect education."

The impacts of new technologies

It can be seductive to follow all the latest changes in terms of new technologies. Today the i-Pad takes the attention of many commentators, at other times recently it has been social networking sites such as Facebook or micro-blogging sites like Twitter. More generally commentators have focused on general changes in media and the technological forms, concentrating on the new social media and Web 2.0. It is certainly important to keep up-to-date with technological changes and there are significant shifts in the technological and media landscapes; however it is important not to be seduced by the latest craze or the most fashionable development. In general terms the new digital and networked technologies have led to broad changes that affect education. Jones and Dirkinck-Holmfeld (2009) capture these changes in the following list:

- **Time shifts** – Computer networks used in education affect the usual time patterns of education. Many courses delivered across networks are asynchronous.
- **Place** – The introduction of mobile and ubiquitous computing devices have begun to make the idea of education occurring at anytime, anyplace, and anywhere seem more feasible.
- **Digital preservation** – The outputs of synchronous and asynchronous activity are easily preserved in transcripts, logs and a variety of other forms including the archiving of web casts and audio interviews/podcasts.
- **Public/Private boundaries** – The preservation of what would otherwise be ephemeral materials alters the boundaries between what is public and what is private. Tutors can now view and preserve the details of student's interactions during group activities, making these available as tools for assessment.
- **Forms of literacy** – The still largely text based world of networked learning has generated new forms of writing that are neither simple text replications of informal conversation nor are they formal written texts. The integration of images and

audio into digital environments has suggested new forms of multimedia literacy.

- **Content** – The boundary between content and process is shifting. Blogs and wikis can provide elements of content and cut and paste re-use is common practice. The idea that there is a clear distinction between activity/process and artefact/content is becoming strained. (Jones and Dirckinck-Holmfeld, 2009, p. 10)

This is, of course, not an exhaustive list and many others could be developed to capture the changes taking place. The significance of the list is the way it moves away from a consideration of any particular tool or technological advance to consider the general issues that arise from the application of new technologies on a broad scale. This is important for education because, although there is very rapid change, there is also continuity and educational processes are not quickly changed because they are embedded in historic processes and national and state driven policy agendas that move at a considerably slower pace of change.

Within this short article it is not possible to deal with all the issues raised by the technological changes taking place but we can deal with a small number of examples related to the theme of contemporary change and the edgeless university. These are:

1. The claims made in the Net Generation and Digital Natives arguments about how technology is affecting new millennium learners,
2. The emerging tension between centralized institutional learning management systems (called Virtual Learning Environments in the UK) and more personal environments enabled by new technologies,
3. The impact of cloud computing on core services provided by educational institutions for learners

Each of these issues is presented firstly in terms of the effects of the new technologies on education and then each is explored in terms of the choices that these technological changes allow for at various levels in education.

New millennium learners

By the time that students in advanced industrial countries arrive at university they are already familiar with a variety of computing devices and the use of digital networks and they have developed practices that have relevance for teaching and learning. The availability of digital networks and a wide range of devices, including laptop computers, mobile devices, etc., connecting to these networks means that the world that many young people grow up in is defined by new technology. A literature has become highly influential that argues that this new technological environment is having profound, identifiable and universal impacts on young people. Two of the most common ways used to describe the new generation of young people are the Net Generation (Tapscott, 1998, 2008) and Digital Natives (Prensky, 2001, 2001a), although a number of other terms are also used, including Millennials and Generation Y. These authors

argue that there are distinct generational boundaries and that young people have:

“... not just changed *incrementally* from those of the past, nor simply changed their slang, clothes, body adornments, or styles, as has happened between generations previously. A really big *discontinuity* has taken place. One might even call it a “singularity” – an event which changes things so fundamentally that there is absolutely no going back.” (Prensky, 2001, p. 1)

In response to the impact of these terms there is a growing literature that is critical of the Net Generation and Digital Native arguments. Some of this literature is based on empirical research (Bullen *et al.*, 2009, Jones *et al.*, 2010, Kennedy *et al.*, 2008, Pedró, 2009, Selwyn, 2008). Other critics have taken a more theoretical stance (Bennett *et al.*, 2008) suggesting that the Digital Native argument is a form of moral panic that has had the effect of closing off debate. The empirical research demonstrates that students in advanced industrial countries are far from homogenous in their response to

new technologies (see Kennedy *et al.*, 2008 and Jones *et al.*, 2010). In particular it shows that the Net Generation age group is itself divided by age internally (Jones *et al.*, 2010) and that age related differences occur across all ages and show no signs of the kind of generationally organized digital divide that is suggested by the literature (Prensky, 2001).

The generational arguments arising from the writings of Tapscott (1998, 2008) and Prensky (2001, 2001a), amongst others, suggest that a whole generation of students has been affected by their immersion since birth in a world infused with digital and networked technologies. It is suggested that this technological immersion is a line of causation, with the technological changes causing a change in the relationship of a cohort of young people to the technologies themselves and a range of other activities including learning. For example the Net Generation has been associated with a tendency towards collaboration and Tapscott has suggested that:

“In education they [the Net generation] are forcing a change in the model of pedagogy, from a teacher-focused approach based on instruction to a student-focused model based on collaboration.” (2008, p. 11)

The empirical research describing students at university suggests another reading of the situation in which the developments in digital and networked technologies allow for, or afford different patterns of engagement with technology and learning but they do not force any particular change. Technologies in this reading do not force change, rather they define the range of choices that can be made. Students for example suggest that the new technologies can be distracting when they are working. Agent driven notifications appear on screen while the students work with multiple applications open at the same time with some providing educational and work related support whilst others are related to the student's social life and leisure. Students are not passive in response to this tendency to distraction and indeed they actively choose to follow their own

“A literature has become highly influential that argues that this new technological environment is having profound, identifiable and universal impacts on young people. Two of the most common ways used to describe th[is] new generation are the Net Generation (...) and Digital Natives...”

strategies for dealing with this technology driven phenomena (Jones and Healing, forthcoming). Choice is not only concerned with the individual student and their relationship with technology and universities are also making choices as the next section argues.

Centralisation and decentralization

Many universities now have a provision of centralized and integrated tools for teaching and learning. In many ways this is a sign of success, because technology enhanced learning has moved from the margins of university life into the mainstream. Weller (2010) has identified the following advantages to such centralized systems:

1. Uniformity of student experience
2. Centralised support
3. Quality assurance
4. Efficiency
5. Robustness
6. Integration of different tools
7. Staff development
8. Platform for expanding elearning offerings

“Many universities now have a provision of centralized and integrated tools for teaching and learning. In many ways this is a sign of success, because technology enhanced learning has moved from the margins of university life into the mainstream.”

However the integration of what are known as Virtual Learning Environments (VLE) in the UK and Learning Management Systems (LMS) elsewhere has occurred alongside the development of a range of technologies that have been captured using the term Web 2.0 (Sclater, 2008a). Web 2.0 environments seem to offer greater choice and the possibility of personalization in learning and Web 2.0 provides a contrast to the institutional and centralized approach embedded in the VLE/LMS systems provided by most universities. Sclater has noted that other educational technologists, such as Martin Weller, have argued that the VLE/LMS as a large application is unsustainable and that future provision of services by universities is likely to be via a range of components built by different companies or projects which interact with each other over the Internet (or an intranet) via web services in the form of a distributed learning environment (Sclater 2008, p. 9).

The various VLE/LMS platforms, such as Blackboard, Moodle, Sakai and WebCT, have been challenged by educational technologists who suggest that a more decentralized, personal and loosely coupled learning environment would be more appropriate for use in higher education institutions (Weller, 2010). The reasons given for more personalized and loosely coupled systems were summarized by Weller as:

1. Quality: The individual components of an integrated system will not be as good as specialist tools performing any one of these functions
2. Flexibility
3. Pedagogic suitability
4. Relevance
5. Educator control
6. Personalisation

Weller’s article has usefully summarized the choices that arise between the VLE/LMS and more personalized systems in terms

of a spectrum spanning centralization and decentralization. Although Weller has been an advocate of decentralized and personalized systems he concludes that the fully individualized PLE may not be possible or desirable in higher education. However he also argues that maintaining separate, often inferior versions of commonly available software is also not a sustainable position (Weller, 2010). The central issue that Weller identifies as placing a restriction on the fuller development of personalization and decentralization is the need for control. It has been several years since Brown and Duguid (2000, Ch. 8) identified the core functions of universities as degree granting, suggesting that universities might be reduced towards their core and become ‘Degree Granting Bodies’. It is because universities need to maintain this core function (by providing credentials, such as degrees and certificates, and standing behind these awards by warranting the procedures) that control is maintained in the center to ensure the quality and standards represented in the university’s credentials. The choice involves technological change and it is constrained by these changes but it is also a political and institutional choice related to the core social function of the university.

Into the clouds

The institutional choice between centralization and decentralization is being affected by another development, the possibility of what is called cloud computing. The term cloud computing has various definitions and, having reviewed over 20 alternatives, Vaquero *et al.* (2009) proposed the following:

“Clouds are a large pool of easily usable and accessible virtualized resources (such as hardware, development platforms and/or services). These resources can be dynamically re-configured to adjust to a variable load (scale), allowing also for an optimum resource utilization. This pool of resources is typically exploited by a pay-per-use model in which guarantees are offered by the Infrastructure Provider by means of customized SLAs.” (p. 51)

There are potentially significant cost advantages to such an arrangement and a range of options from simple data storage to client–server arrangements where the application is also stored and maintained by the cloud supplier (Sclater, 2010). Apart from cost advantages for educational institutions in signing up for cloud services, such as Apps for Education or Live@edu, these services can also allow for spikes in usage, such as when exam results are released, and an apparent infinite scalability. A cloud service that has gradually been taken up in education is Second Life, because few educational providers would ever consider hosting the service, leaving provision to Linden Labs. Currently one of the services missing from existing cloud services such as Google Apps is assessment even though Google Apps integrates with software such as Moodle, enabling a single sign on, and Moodle itself is already hosted in the cloud.

There are many serious issues for universities that arise with the use of cloud computing and these include considerations about where the cloud is physically located. The 'Googlisation' of university services may lead to a backlash if Google becomes too closely associated with the university (Sclater, 2010, p. 15). There are also legitimate concerns about the storage of sensitive staff and student data, particularly if it is located off-shore, for example in the USA, where data protection laws are less strict than in the EU. Currently Google claims that European student data will be held in compliance with EU law, and generally companies have privacy policies which restrict or prohibit data sharing with third parties and data mining of individuals' information, but this may not be enough for universities to take such a significant step. Furthermore large corporate suppliers of cloud services are not immune from service disruptions and a single cloud supplier is potentially a single point of failure, even if the data centers themselves are distributed (Sclater, 2010, p. 15). Importantly there are still accessibility issues for disabled users, demonstrated by recent tests at the OU, particularly with regard to screen readers, and both Google and Microsoft systems do not function equally well on all browsers (Scalter, 2010, p. 16). There are also lingering usability issues such as the ability to drag a document from the desktop to a Web browser window, though this may be addressed in future versions of HTML.

Cloud computing offers businesses a number of significant advantages in terms of cost, dealing with uneven demand and the potential for scalability. However for universities the technical availability of cloud computing has to be balanced against the organizational needs of the university in providing services to all potential students regardless of variations in ability and the need to provide secure data storage that respects staff and student requirements for confidentiality. These university requirements are not necessarily at the forefront of the issues designers confront when developing commercial services and universities have a number of significant choices to make if they wish to make use of the commercial benefits of cloud computing.

Choice and the affordances of new technologies

A key feature of the three debates that we have introduced is the issue of choice. Technologies do not determine outcomes, though they do condition the parameters within which choices can be made. The arguments presented as part of the Net Generation and Digital Natives debates have suggested that a cohort of young people entering university is distinct from previous generations and that their characteristics are derived from their exposure to new technology. We have argued that this is not borne out by empirical research which shows that, whilst age is a significant factor in relation to the use of technology, there is no single Net Generation composed of Digital Natives, nor is there a sharp divide between this group of young people and those who are older. Indeed the Net Generation age group is divided internally by age and the kinds of age related differences that we find are dependant on the specific technologies being investigated, with the newer technologies showing the sharpest age related differences. Technologies do not seem to

determine student approaches to the use of technology, rather young people seem to be actively engaged in the process, making choices about what technologies to use, in what ways and how often. Equally choices are not simply made by individual students they are made by institutions who determine the kinds of infrastructures for learning, such the local VLE/LMS that students engage with.

The current developments in terms of Web 2.0 technologies have generated a debate about the use of institutional VLEs/LMSs and the potential to provide a more personalized and decentralized system, sometimes referred to as a Personalized Learning Environment (PLE). We have argued that the choice

is not one that is either simply determined by the technologies or narrowly focused on technological issues. Instead, the choices we identified are ones that affect the core functions of the university and a key restriction on the full development of the technical possibilities of personalization is the institutional requirement that universities

have to retain a degree of centralized control to ensure the quality of the credentials they issue to students. Finally we examined the current trend towards cloud computing and how the storing and sharing of data entailed with this development could conflict with university requirements. Cloud computing also has implications for accessibility and the need for universities to allow access to students with a range of disabilities. The issue of cloud computing like the discussion of more personalized systems for learning touches on core aspects of a universities mission. Choice in these circumstances involves consideration of technological issues and the technologies can in some ways define the parameters for the range of alternatives; however choice remains a highly political question, touching as it does on the central role of the university in society.

The edgeless university?

We began this article with a reference to the idea of the edgeless university. The idea of the edgeless university suggests the university has retained an identifiable function in the new technological landscape but that the role of the university is expanding beyond the single institution and even beyond the confines of higher education institutions as such. Cloud computing is one notable area in which this kind of development is immanent in the most current of technological developments. Cloud computing would place university services outside of the university itself and store data beyond the territorial limits of the state. As we have argued above this development in technology does not lead to inevitable change, rather it leads to challenges and choice. Like all revolutions, the technological revolution that some have claimed technologies independently drive forward, is inevitably political and being a political process it involves someone, an organizational body or individual person, choosing which futures to enable and which to deny. Educators in the early 21st century find themselves at a point in time in which new technologies have expanded our range of choice but they have not relieved us of the necessity to choose.

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“A key feature of the three debates that we have introduced is the issue of choice. Technologies do not determine outcomes, though they do condition the parameters within which choices can be made.”

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Virtual Libraries as Virtual Learning Spaces

by **Dr Jane Secker**, Learning Technology Librarian, London School of Economics and Political Science Centre for Learning Technology, UK

Introduction

The article is based on experiences at the London School of Economics and Political Science (LSE) where a variety of library resources are provided to students via the virtual learning environment, Moodle. In 2007, LSE led a project funded by the Centre for Distance Education at the University of London to explore how libraries can exploit Web 2.0 technologies to enhance their services. The Libraries and Social Software in Education (LASSIE) project included a literature review to identify examples from libraries around the world that use tools such as blogs, wikis, social networking sites, social bookmarking sites and various social media tools. The project proved to be a catalyst for developments to support students using Web 2.0 at LSE. However while these technologies have considerable advantages and can help students and tutors to manage and disseminate information, levels of awareness have remained relatively low.

To tackle this issue and to help staff and students to exploit Web 2.0 technologies, LSE now offers a range of training courses in areas such as blogging, RSS feeds, social bookmarking tools and collaborative writing tools. Staff in the Centre for Learning Technology (CLT) and the Library are also using a range of Web 2.0 tools in their personal and professional lives and there have been a number of enhancements to traditional library services. This article argues that there are clear advantages to the approach at LSE where librarians work in partnership with learning technologists to deliver this support. However, many library resources are now available to students via Moodle, leading the full range of electronic resources to be overlooked sometimes. The article looks at the approaches at LSE to tackle this issue and asks whether Web 2.0 tools offer the opportunity to enhance the virtual library to create a virtual learning space.

What is Web 2.0

It is useful to define 'Web 2.0 technologies', for the term was popularised in 2004 by the US media company O'Reilly Media, although it describes technologies that were developed much earlier. These technologies are sometimes called 'social software' as one of their features is the ability to share resources and communicate with other users across a network. Social software uses the Internet as a platform to run software and services rather than a desktop PC, so most Web 2.0 tools are hosted remotely and can be accessed from anywhere with an Internet connection. The term has proved controversial however and Tim Berners-Lee, the 'inventor' of the world wide Web dislikes it, as he maintains that he always envisaged the Web would allow people to collaborate and communicate. He argues that many supposed 'Web 2.0' technologies have existed since the beginnings of the Internet and that the development of the 'Semantic Web' (or Web 3.0) is far more significant. The Semantic Web is the expression of Web content not simply in natural language, but in "a form that can be understood, interpreted and used by software

agents, thus permitting them to find, share and integrate information more easily" (W3C, 2007).

To summarise, some overall characteristics of social software or Web 2.0 include:

- development of social networks;
- content created by users rather than created by an organization;
- development of user profiles;
- use of folksonomies, or tagging, to attach keywords created by users, to items to aid retrieval.

The LASSIE Project: key findings

The LASSIE project partners included the LSE Centre for Learning Technology, LSE Library and Archives, the Institute of Education library, the University of London Research Library Services, the Open University and the London School of Hygiene and Tropical Medicine. The project examined the extent to which other libraries had engaged with Web 2.0 technologies and used them to enhance their services. The use of Web 2.0 technologies by libraries is sometimes known as 'Library 2.0' and the LASSIE project undertook a literature review in this area. It has been published in various forms (Secker, 2009) but is also available in full on the project website (LSE, 2010). The project also undertook a number of small scale case studies some of which included experiments with University of London distance learning students to see how specific technologies might enhance their experience of using libraries. The case studies explored: the use of social bookmarking for managing Internet resources, the use of Facebook by libraries, social citation tools for providing access to reading lists, the development of a podcast to teach citation skills and an exploration of the use of blogging in libraries. Case study reports are also available on the project website with more details.

The project had a number of key findings, in particular it revealed:

- At the time of the study, libraries in the UK were experimenting with new technologies to enhance their services – many developments were taking place in higher education, but other libraries were also experimenting with Web 2.0 technologies. There is evidence to suggest these developments are still ongoing and becoming mainstream.
- There was considerable experimentation, but also a great deal of enthusiasm in some areas of the library community in using Web 2.0 technologies as a way of engaging 'digital natives' or the 'net generation'.
- Social networking tools and other Web 2.0 technologies have real potential to help in information literacy support – in particular they can help users manage information overload and finding and use resources more effectively.
- Web 2.0 raises a number of issues and in some sectors (for example public libraries or the health service) access to such services is prohibited for a range of reasons including con-

cerns about intellectual property rights, security concerns and a belief that these technologies are purely social websites and inappropriate to use in a professional context.

While the LASSIE project has finished, this article will argue that it served as a catalyst for many of the subsequent developments at LSE. It also brought together librarians and learning technologists who work to enhance library services and the virtual learning environment by exploiting various Web 2.0 tools.

Reflections on students' needs and behaviour

Before going any further it is worth exploring the recent literature which exists examining the information seeking behaviour and needs of students in higher education today. Prensky (2001) first proposed the idea of the 'digital native', which described young people who had grown up with access to digital technologies and access to the Internet. This was contrasted with the older generation who has learnt to use such technologies and is thus described as a 'digital immigrant'. Meanwhile, 'Generation Y' or the 'Net Generation' are terms generally used to describe people born between the 1980s and the year 2000. Again this generation has a number of characteristics including a greater familiarity with information and communication technologies. There have been a number of significant studies recently that have looked at students from this generation in terms of their information seeking behaviour (RIN, 2007; Rowlands *et al.*, 2008). More recently studies have looked at how these students use Web 2.0 technologies (CLEX, 2009), with evidence to suggest they do approach information in a different way. This research also suggests that students in higher education struggle more with 'information literacy' skills in particular how to evaluate or critically appraise information, but also how to manage the vast amount of resources they find. Many librarians are responding to this by offering information literacy support in higher education, and where possible embedding this into the academic curriculum. The need to understand how to find, evaluate and manage information on the Internet has become as crucial as reading and writing skills. Moreover, the development of virtual learning environments, which often include links through to full text readings, has meant the need to 'train' students in research skills that has become even more critical, as many students complete undergraduate degrees by reading material given to them in either paper or electronic format available from a virtual learning environment.

E-learning at LSE

In common with all universities in the UK, most LSE courses use some form of technology to enhance and support student learning. Moodle, the institutional virtual learning environment, is used by many to provide access to resources to support face to face teaching in what is termed 'blended learning'. The students are largely full time and based on the campus in central London, however they can access a range of materials, such as lecture notes, class handouts and an online reading list via Moodle. Some courses also use other tools such as online discussion forums, online assessment and recorded lectures. The aim is to enhance the student experience through Moodle, and to supplement, rather than replace, face to face contact.

This work is supported by a small specialist team based in LSE's Centre for Learning Technology (CLT) who helps academic staff to make the best use of new technology in their teaching. CLT supports the School's virtual learning environment, Moodle, but also a range of other technologies. They provide training and advice for staff and also offer small grants to fund developments and initiatives.

Library support in Moodle at LSE

The CLT also employs a Learning Technology Librarian to advise staff about copyright issues and how to identify and use library resources. This might include linking to subscription resources such as electronic journal articles or e-books or included scanned extracts from published books and journals. The work associated with this, including copyright permission and digitization, is managed by LSE Library who works closely with CLT to provide access to readings via Moodle. This means that students have access to a wide variety of full text resources directly from the virtual learning environment.

Integrating libraries resources into Moodle is relatively complex and this work is supported by the Learning Technology Librarian who provides advice, training and support for staff in a variety of different areas, including:

- helping them to put their reading list online including adding links to full text readings where possible;
- advising over copyright issues associated with work in this area;
- Providing training and support in using new technologies through a 'Digital Literacy' programme.

Library resources are also made available to students in Moodle via what is termed a 'sticky' block (see **Figure 1**). The block appears at the top right of the screen in all Moodle courses and cannot be removed by the teacher (hence the term 'sticky'). This was developed by CLT and library staff to include a range of core library services, such as the Library Catalogue, the Subject Guides and scanned exam papers. It is an attempt to remind students that a vast library of resources is available in addition to the linked resources from Moodle.

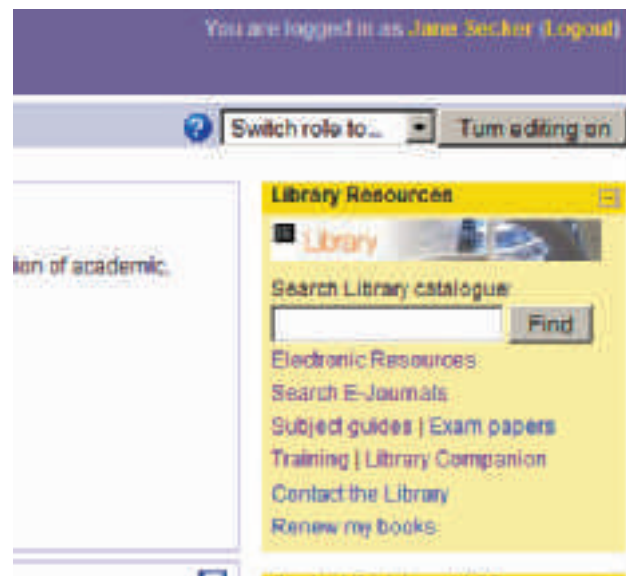


Figure 1: Screenshot showing Library resources in Moodle.

In addition Library staff have used Moodle to develop what are termed 'Library Companions'. These Companions are Moodle courses which provide students with a range of online guidance and support. Currently three companions are available including:

- A general introductory course providing an overview of key library services and support for electronic resources.
- A researcher's companion providing more advanced support and aimed at doctoral level students.
- A data companion to support students using the extensive Data Library at LSE.

The Companions are also used as a way of distributing class handouts to complement the face to face training the library offers through its information skills programme. While some training materials are available on the LSE Library website, the use of Moodle is an attempt by the Library to situate help and support in an environment that students use regularly for their studies.

Developments at LSE since LASSIE

There have been a range of developments at LSE to enhance more traditional library services and utilize new technologies since the ending of the LASSIE project in January 2008. These have included the development of a range of new courses for staff and students, many of which are co-taught by librarians and learning technologists. Some examples include: a course entitled 'Keeping up to date' that explains how to manage information using RSS feeds and the Google Reader tool. This course is offered to staff, PhD and masters students. Courses for staff and PhD students are also run on topics such as using Twitter, the microblogging site for professional networking, managing your Facebook privacy and security setting and managing Internet resources using the social bookmarking tool Delicious.

A second initiative has been the use of the social bookmarking tool Delicious by liaison librarians to manage lists of useful Internet resources and recommend these to students via the Subject Guides. This has replaced static Web pages of links to resources and has a number of advantages. One advantage is that the delicious 'tags' (which often correspond to academic departments at LSE) can be embedded into subject guides, into Moodle and in various other places on the Library website. Another advantage is that the resources can be kept up to date quickly, and resources can be added to Delicious easily by any member of the liaison librarian team. You can view these resources at: <http://www2.lse.ac.uk/library/eresources/ecollections/freeresources.aspx>

A third development since January 2008 has led to modifications of the Library Catalogue. The Library IT team implemented a Web 2.0 look and feel to the catalogue to enhance the functions and make the user experience more in line with websites such as Amazon. It now includes features such as ratings and reviews, booking marking of pages and a more visual display with book jackets. The modifications to the catalogue were implemented by using an open source 'layer' that sits over the traditional catalogue, called VuFind. This new interface was initially launched as the 'beta catalogue', but feedback from staff and students was so positive that it became the standard catalogue interface in October 2009.

A fourth development has been a number of experiments with social networking. The Library has a Twitter account ([http://](http://twitter.com/LSELibrary)

twitter.com/LSELibrary) and this has been used as a way of keeping up to date students with Library news. There is also a Facebook page (http://www.facebook.com/pages/City-Of-London-United-Kingdom/LSE-Library/119574381995?v=box_3) which is a way of promoting the library and allows students to become 'fans' of the Library if they wish to be alerted to news. A LSE PhD student also developed a Facebook application that allows LSE students to renew their library books in Facebook. In all three cases these initiatives have been released to students on an experimental basis, with minimal publicity, to gauge the level of interest.

Finally, interest in blogging at LSE has been considerable and several liaison librarians now maintain a blog to keep staff in their departments up to date with news. LSE Archives also set up a blog called 'Out of the Box' which includes news, highlights from the collection and discusses topical events. A screenshot from the blog is presented in Figure 2.

This was largely based on their experiences during the LASSIE project and all Archives staff now contribute to the blog regularly. LSE Archives have also used the photo sharing website, Flickr to showcase digitized images from LSE Archives. This had led to considerable interest in this collection from individuals outside of LSE.

Discussion

Web 2.0 technologies allow us to use the Internet to communicate, interact and to share ideas and resources in new ways. Almost all retailers are now using these tools to enhance the services they provide and as a marketing tool. There is considerable merit in libraries that follow this approach as Miller states:

"Leveraging the approaches typified by Web 2.0's principles and technology offers libraries many opportunities to serve their existing audiences better, and to reach out beyond the walls and Web sites of the institution." (Miller, 2005)



Figure 2. LSE Archives Blog 'Out of the Box'. <http://lib-1.lse.ac.uk/archivesblog/>

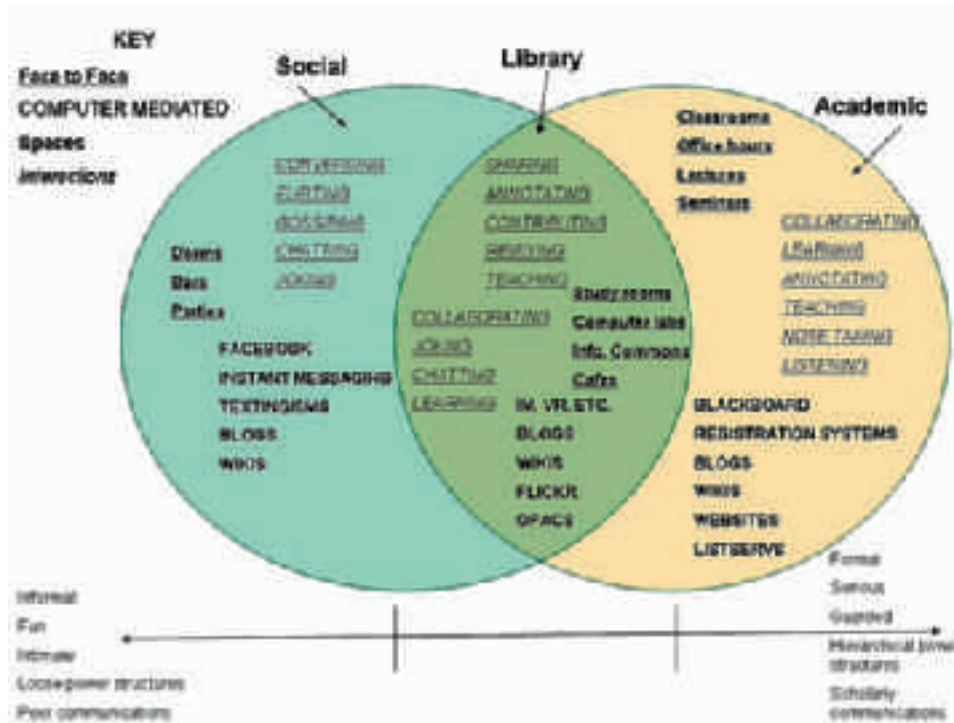


Figure 3. Michael Habib's model of 'Academic Library 2.0'.
 From Michael Habib's Flickr site (Licensed under Creative Commons):
http://www.flickr.com/photo_zoom.gne?id=222296001&size=o

Conclusions

From our experiences at LSE, there is not enough evidence to suggest that virtual library spaces are yet used for informal learning in a similar way to physical libraries. This is perhaps a reflection of the fact that while students use many Web 2.0 tools for socialising, few make the leap to using these tools in a formal learning situation. Currently the use of Facebook by students is extremely high, but it is largely for socialising and interacting with their friends rather than as a learning space where they might discuss library resources. In addition most students are heavily influenced by their teachers when it comes to the resources and academic tools that they use. Many teachers are still unfamiliar with Web 2.0 tools, relying instead on basic functions provided by the virtual learning environment.

The approach at LSE, to target academic and administrative staff and provide them with a range of support, advice and training in using Web 2.0 tools, therefore seems appropriate. Web 2.0 courses are delivered alongside a programme of training and support in the use of Moodle, with the focus on how staff can use new technologies to support student learning, save themselves time and work more efficiently. In several instances attendance at one of these courses has directly led to a request for students training. In conclusion, it seems that at LSE, the library and e-learning teams are leading the way in their use of Web 2.0 tools. They are providing a valuable role in supporting and training other groups of staff, but we are still some way off realising the potential of the virtual library as a virtual learning space.

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However, the LASSIE project also explored the idea of libraries as what Oldenberg (1999) called 'third places', which recognises they are neither the home or work environment. Physical libraries are also a combination of academic and social spaces where much informal learning takes place. Increasingly we have seen library spaces are evolving to reflect the need for a space where students can interact – many academic libraries now include group study rooms - but also places where users can eat, drink and relax. LSE Library recently developed the foyer in recognition of the need for this type of space where students can now use their mobile phones and meet informally. Other libraries in the UK have taken this much further providing a range of flexible learning spaces. Key examples include the Saltire Centre at Glasgow Caledonian University and the Information Commons at the University of Sheffield.

This has led some to argue that using Web 2.0 might allow our virtual libraries to develop as a virtual social space, with conversations happening through commenting in the Library catalogue or in blogs and Flickr collections. Habib proposed a model of what he terms 'library 2.0' where the role of the virtual library as a social space is clear. He modified this model as 'Academic Library 2.0' (see Figure 3) in 2006 and discussed his ideas further on his blog (Habib, 2006).

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Las bibliotecas virtuales como espacios de aprendizaje

El artículo se basa en las experiencias recogidas en la London School of Economics and Political Science, LSE (Escuela de Economía y Ciencias Políticas de Londres) donde se ofrece una gama de recursos bibliotecarios a los estudiantes a través del ambiente de aprendizaje virtual, Moodle. En 2007, la LSE condujo un proyecto financiado por el Centre for Distance Education de la Universidad de Londres para explorar cómo las bibliotecas pueden explotar las tecnologías de la Web 2.0 para mejorar sus servicios.

Los participantes del proyecto "Libraries and Social Software in Education" (LASSIE) incluyeron el *Centre for Learning Technology*, *LSE Library and Archives*, *the Institute of Education library*, la *University of London Research Library Services*, la *Open University* y la *London School of Hygiene and Tropical Medicine*. El proyecto examinó hasta qué punto otras bibliotecas se han involucrado con las tecnologías Web 2.0 y las han empleado para mejorar sus servicios. El uso de las tecnologías Web 2.0 por las bibliotecas a veces se conoce como "Biblioteca 2.0" y el proyecto LASSIE realizó una revisión de literatura en esta área (disponible en su totalidad en el sitio web del proyecto). El proyecto también llevó a cabo varios estudios de casos a pequeña escala, algunos de los cuales incluyeron experimentos con los estudiantes a distancia de la University of London para determinar cómo ciertas tecnologías específicas podrían mejorar su experiencia en el uso de las bibliotecas. Los estudios de casos exploraron el uso de los marcadores sociales para el manejo de recursos en internet, el uso de Facebook por parte de las bibliotecas, las herramientas de citas sociales para dar acceso a las listas de lecturas, el desarrollo de un podcast para enseñar a hacer citas y una exploración del uso del blogging en las bibliotecas.

El proyecto demostró ser un catalizador de avances para apoyar a los estudiantes que están usando la Web 2.0 en la LSE. Sin embargo, aun cuando estas tecnologías ofrecen ventajas considerables y pueden ayudar a los estudiantes y tutores a manejar y disseminar la información, los niveles de conciencia se mantienen relativamente bajos.

Para ayudar al personal y a los estudiantes a explotar las tecnologías Web 2.0, la LSE ahora ofrece diversos cursos de capacitación en áreas tales como el blogging, contenidos RSS, marcadores sociales y herramientas para la redacción en colaboración. Este artículo plantea que existen ventajas claras en el enfoque de la LSE donde los bibliotecarios trabajan en alianza con los tecnólogos del aprendizaje para mejorar la biblioteca virtual y crear así un espacio de aprendizaje virtual.

The Challenges & Promise of Mobile Technology

by Joe Murphy, Kline Science Library, Yale University

The global reach of mobile has spread to libraries. The impact of mobile technology on information seeking behavior, interpersonal communication, and patrons' expectations for services is starting to affect the way libraries are conceived of and imprinting itself upon the design and delivery of library operations. The expanding focus on mobile technology is literally changing the way libraries around the world do business.

The current trend of increased focus on mobile technology and the spread/infiltration of these tools and resources are visible in the global statistics. The United Nations' International Telecommunication Union predicts "the number of mobile cellular subscriptions globally to reach five billion in 2010" (http://www.itu.int/net/pressoffice/press_releases/2010/06.aspx). It is predicted that "Mobile Will Be Bigger than Desktop Internet in 5 Years" (http://www.morganstanley.com/institutional/techresearch/pdfs/Internet_Trends_041210.pdf). Twitter now has over 100 million users and boasts 15 billion posted tweets (<http://mashable.com/2010/05/29/twitter-15-billion-tweets-and-counting-pic/>). Over 4 billion text messages are sent every day (http://www.businesswire.com/portal/site/google/?ndmViewId=news_view&newsId=20091007006200&newsLang=en). More eBooks were sold on Amazon.com than print books for the first time on Christmas 2009 (<http://mashable.com/2009/12/26/kindle-ebook-sales/>). These represent a revolution more than a trend.

Starting with a Mobile Framework

I find it useful to approach mobile technology in three steps: gaining an understanding of the technologies and trends, becoming familiar with the impact of these technologies upon the world of information and libraries, and combining the first two with our traditional librarian expertise to develop and shape services within the mobile context.

Mobile e-learning

Recent evolutions in e-learning have begun to be shaped by the growing role of mobile technologies in instruction techniques and learning styles. Mobile natives are seeking mobile opportunities for learning and expecting mobile components to instruction. With or without libraries, these mobile patrons are seeking and finding opportunities for learning environments enriched with mobile technology and familiar aspects of mobile culture.

The challenge and role for librarians in this climate of change is to reinsert the library experience in the form of librarian expertise into the mobile learning cycle. In this way we can make

sure our library users receive the benefits of the information expertise that forms the bedrock of what librarians offer. This invaluable resources for helping library users grow as efficient and effective consumers and producers of information may take different shapes within the mobile transition but the fundamental nature and central role it plays remain the same.

These new evolutions in mobile learning have enabled the expansion of the library as teacher into the mobile realm of training and e-learning. We will discuss these changes, their context, some practical aspects, and future prospects of mobile technology in libraries.

Mobile Literacy

Mobile literacy is now an important skill for effective researchers and informed citizens because the spread of mobile technology now touches so much of the information cycle. I introduced the concept of mobile literacy in a presentation at the

2010 Computers in Libraries conference (<http://bit.ly/cil2010moblit>) outlining a framework for how librarians can approach this new set of skills. Mobile literacy is the ability to effectively and critically engage with information encountered in or acted upon through mobile technology. It is important for librarians

because we need to be able to expand our information skills into the mobile world of information and because the skills involved in accessing and manipulating information now so often includes mobile technologies.

The framework for mobile literacy that I have introduced includes three key elements: understanding and valuing the impact mobile technology has on libraries and upon information seeking behavior, being aware of the major mobile technologies affecting information engagement, and being able to design and operate mobile library services.

Becoming Familiar With the Technologies

The most basic step of engaging mobile technology as librarians is being aware of and familiar with the technologies. This step though, deserves the least amount of attention from information professionals because it doesn't represent a skill, but rather a level of experience and exposure. This step includes being aware of the major mobile tools, resources, and gadgets that are important right now, as well as those emerging onto the scene to make an impact in the near future.

The mobile technology landscape is constantly changing, and at a faster and faster pace. It is our challenge and our strength

"The challenge and role for librarians in this climate of change is to reinsert the library experience in the form of librarian expertise into the mobile learning cycle."

to stay vigilant about the contemporary technologies that are making waves and potentially impacting libraries *right now*. Some of the major mobile technologies that are heavily impacting information engagement this year are mobile applications for smart phones, mobile-friendly web pages, Twitter, Facebook's mobile services, and mobile eReading devices.

Mobile applications for smart phones are small pieces of software dedicated for a specific resource or function built by third parties that individuals can download onto their smart phones. Text messaging, also known as SMS (short message service), is the sending of brief text-based messages, less than 160 characters, between cell phones. It is one of the most popular forms of mobile communication around the world. Uses of SMS have expanded beyond that of peer-to-peer communication into the worlds of current awareness, social networking, and even research.

As mobile phones become an increasingly popular mode of accessing the Internet, web pages designed specifically for mobile devices are playing a larger role. Twitter, the hugely popular mobile/social network based on short posts consisting of only 140 characters sent/received with mobile phones, a web page, or third party clients, is placing a heavy emphasis on real time and concise communication. Twitter is relied upon heavily as a broadcast medium, but is also great for peer-to-peer interaction and information exchange. eBooks have caught their stride with the widespread adoption of mobile eReaders including the Kindle, the iPad, the Nook, and smart phones amongst some of the top devices.

The other side of this is being aware of and ready for the major mobile technologies that are now emerging and are set to make their impact in the near future. The technologies on the horizon this year that have high potential for taking center stage very soon will be location-based networks, QR Codes, and Augmented Reality. Augmented reality is overlaying real world objects with a layer of digital information. Augmented reality tools like the Layar application (<http://www.layar.com/>) use smart phones to make visible and interactive electronic data about places and objects scanned with the phone: making the mobile phone a discovery tool in conjunction with the real world.

QR Codes are two-dimensional barcodes containing customized information that can be scanned with smart phones. They offer a method for plying smart phones a mobile bridge between physical or print objects and digital information.

Location based services include social networking games like Foursquare, Gowalla, Loopt, and MyTown. These emerging technologies allow for direct interaction with places or events through mobile phones by using gaming and social networking to expand how we interact with information and each other. Coincidentally, these are all part of the larger trend of enhancing interaction with location, a trend we will see a lot more of.

Understanding the Impact and Reach of Mobile Technologies on Libraries

More important than fluency with the individual technologies themselves is understanding and valuing the trend and changes of the mobile revolution as a whole. I believe the focus for librarians should actually be on understanding the larger context of mobile technology as a cultural trend or a zeitgeist, and understanding its major concepts, components, and implications. The implications of the evolving mobile data sphere for libraries touches on so much more than tools and means of access primarily because the infiltration of mobile technologies into more and more aspects of our lives has shifted our information expectations more heavily towards mobile.

Learning, Training, and Growing

It falls to us all as a community of professionals to train each other in the areas of technology skills for new tools, cognitive skills for understanding new models, and affective skills to increase our valuing of these changes. New technologies can intimidate, and new required skills can cause tension but together we form a strong co-learning community capable of supporting the new and changing skills related to mobile technologies facing us librarians.

The new skills that we are pressured to learn as librarians engaging mobile technology cover everything from technical skills of to communication norms and user expectations.

The technical skills may include actions such as how to operate smart phones, how to send and respond to text messages, and how to search in mobile databases platforms. I covered much of these details in a recent article for *Online*.

Training to master these new skills can focus on gaining personal experience to minimize the learning barriers and maximize the acceptance of the technologies. I find that by creating an open environment wherein we can gain personal experience playing with the technology and exploring its functions can be very successful at opening our minds to learning the service skills.

Lessons

The experience of implementing mobile technologies in libraries is often similar but never the same as with previous technologies. We face rapidly shifting patron expectations that change as quick as the next gadget trend that must in essence drive so much of what we do. We also face wide gaps in understandings and expectations within our staff across generations and experience. These challenges, these obstacles and opportunities, are the points at which we can work together to achieve progress. Let's leverage the tensions caused by internal expectations to maximize the experience for external progress.

“The other side of this is being aware of and ready for the major mobile technologies that are now emerging and are set to make their impact in the near future. The technologies on the horizon this year that have high potential for taking center stage very soon will be location-based networks, QR Codes, and Augmented Reality.”

Even if we cannot implement mobile services in our libraries, we can adapt and make ourselves amenable to the mobile culture. We can accomplish this less lofty goal by reconceiving of our existing services and resources from the perspective of a mobile user. For physical spaces we can facilitate the use of mobile devices with additional power outlets and encouraging the use of location-based services. We can rethink our policies restricting cell phones from our libraries since they are now valid research tools, and instead focus on policies to guide behavior not tools. We can consider the recent changes in expectations for interpersonal behavior and be open to how mobile natives may have different considerations for interpersonal behavior and communication with us directly through mobile devices or in person but affected by their use of these devices.

The possible methods and avenues libraries may pursue with mobile technology are nearly limitless. The restrictions to the possible now include neither our imagination nor the technology itself. The methods with which libraries have begun experimenting with the mobile technology have, however, often been limited by the institutional obstacle we all face: budgets, creative freedom, and other barriers to innovation. There are many real world challenges that we can navigate through. The most powerful tools at our disposal here are our ability to meld our traditional librarian skills with our personal experience as mobile users and innovators skilled at change.

“We are putting our time-tested skills to use by reimagining library services and collections for the mobile age on a global scale.”

Staying Current

There is a growing body of research and discussion into and about this theme of mobile technology and libraries. Whole conferences have been devoted to it including the entirely online Handheld Librarian conferences (<http://www.handheldlibrarian.org>), the m-Libraries conference (<http://m-libraries2009.ubc.ca/>), and upcoming conferences such as Internet Librarian (<http://www.infotoday.com/il2010/>) that will feature segments focusing solely on mobile technology and libraries. Also watch for a special issue of the *Reference Librarian* devoted to articles based on presentations from the Handheld Librarian. Twitter is a fantastic resource for staying connected with fellow professionals interested in staying current on mobile technology. Network with colleagues on Twitter and join the ongoing discussion.

Our Mobile Futures

The future of libraries is change. Mobile technology is impacting many aspects of our cultures, most especially in regards to information, reading, and scholarly communication. Libraries are changing as well to keep pace with these pressures. We are putting our time-tested skills to use by reimagining library services and collections for the mobile age on a global scale. The influences upon demand for mobile access and communication vary across geography, but the trend itself ties us together as a world-wide profession that is more closely connected thanks to and because of mobile technology. We are all now serving end users with widely global connections amongst themselves and with the information they are engaging.

Bright futures are possible for libraries in a world of mobile technology. But they are not guaranteed. It is up to us librarians to ensure that we are critical in embracing the changes needed for adapting to these evolutions in expectations. This may require that we carefully decide, as individual libraries and as a profession, if we want to embrace change and stay relevant as the information sphere enters the world of mobile or if we want to maintain our previous roles and sustain our former success in a niche more heavily reflective of the past.

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The On Line Preventive Conservation MA at Northumbria University

by **A. Jean E. Brown**, Programme Leader, Preventive Conservation, Northumbria University, UK

Introduction

Northumbria University offers a MA in Preventive Conservation that can be studied full or part time, on campus or on line. It combines on-line learning with a work placed learning experience and the development of a final dissertation. The course focuses on developing and understanding appropriate strategies for the care of items of moveable cultural heritage, i.e. paintings, ceramics, books, furniture, etc. It demands knowledge of the materials from which artefacts can be made as well as an understanding of how those materials degrade so that artefacts can be provided with the optimum environmental conditions whether in storage, on display or in transit. This paper will focus on the structure of the on-line site and how the process of learning and teaching takes place online.

What is Distance Learning?

Distance learning delivers a program in a format that does not require the student to attend campus. Correspondence courses are perhaps the most familiar form of distance learning in which the postal service is used to exchange materials. That format generally focused on reading and writing with very little engagement between tutor and student and virtually none between the students themselves. As a result students often found it difficult to engage and frequently felt isolated. Many correspondence courses were not validated and often lacked the rigorous assessment of a campus based program. As a result distance learning was often perceived as worthwhile but generally lacking the rigor and engagement of a campus based experience. Distance learning in the 21st century offers a very different teaching and learning experience in which modern technology and the Internet are used to create and deliver an exciting and interactive virtual classroom. Students are able to engage online with high quality teaching and learning materials incorporating a high level of interactivity.

Why develop On Line Teaching and Learning?

Whether student or tutor we are all familiar with the face to face format of campus based teaching and learning. We know that students and tutors gather together at the same time in the same venue and one teaches the other through the delivery of a lecture or demonstration that may be supported by the use of a black/white board or power point slides. In fact it is so familiar that further explanation is not required. It is a tried and tested format for teaching and learning that we are all familiar with and which we know works and works well. So why change it? Why try to do things differently?

There were three predominant drivers that motivated the development of the distance learning format. Firstly it provided greater flexibility both for students and staff since there was no longer the requirement for staff and students to meet at the same time in the same place. It could provide the opportunity of higher education for students who did not have the option of attending a campus based program with a rigid timetable. In developing regions of the world it offers cultural, environmental and economic benefits to the student since they can learn within the context of the region in which most will later practice preventive conservation. In addition the part time format of the program allows those already working in the sector to underpin their knowledge and skills with a formal qualification whilst researching issues that they know to be relevant and valuable.

Secondly it is also critical that we consider our approach to teaching and learning in the light of resource management. Conservators understand more than most the impact of the environment on the artifacts in their care. Climate change is already presenting conservators with new challenges with regard to the care that they provide for their collections. It is important that we do not add to the problems through unnecessary high energy usage and that we seek to adopt sustainable and renewable options whenever possible. In a 21st century that provides access to shopping and banking on line it should not be necessary to travel long distances at great expense in order to receive an appropriate education in conservation.

The final driver was the fact that conservation programmes are constantly at risk due to the small size of their student cohorts. In order for a course to cover its costs at Northumbria the student tutor ratio should be in the region of 25:1. The ratio of the students on the old two year Conservation of Fine Art MA was closer to 2:1 if the technical and administrative support was taken into consideration. Most universities simply cannot afford to run programmes at such a loss.

Queries regarding Distance Learning

Distance learning is a relatively new concept and inevitably it raises a number of queries. The sorts of questions that emerge generally include:

- Will it be the same as campus teaching and learning?
- Will it be as good?
- How will student interact with each other and the tutor?
- Will students feel out of touch and isolated?
- How will students engage with the teaching and learning materials?
- How will students do exams or assignments?

What is interesting about most of the questions is that the majority are focused on how the process of learning and teaching

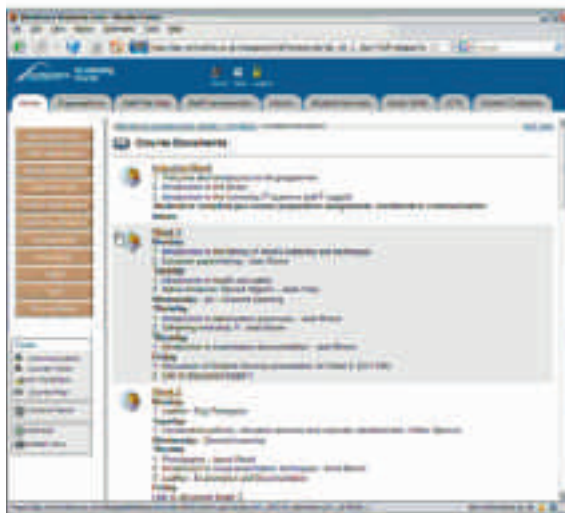
will take place as opposed to the content of the programme. On campus the process has been tried and tested. The tutor develops the teaching and learning materials in advance of the lecture or demonstration and the process of teaching and learning is initiated by both staff and students during their delivery:

- Tutor delivers lecture;
- Students take notes;
- Tutor encourages engagement by asking questions of students;
- Students ask questions of tutor.

On line it is a different matter since the process of teaching and learning has to be built into the teaching and learning materials in advance. This is something that is not required of the campus format and is in many ways the most challenging aspect of developing a distance learning programme.

The Challenge of On Line Learning, Teaching and Assessment

It is often assumed that on line teaching and learning will be less effective, less interactive, less rigorous and less enjoyable than teaching and learning within a traditional classroom environment. It is also assumed that without face to face contact the student will not engage with the teaching and learning materials and assessment procedures cannot be rigorously implemented. In our experience distance learning can not only be highly stimulating and exciting but every bit as rigorous as a campus program. The most important factors in the on line development are a clear understanding of what learning outcomes must be achieved, how students learn and how modern technology can be used to support that process. The aspects that had to be developed in the virtual classroom (See Brown, Vienna, 2007) included teaching and learning materials, navigational tools, communication systems, interactivity, and assessment procedures.



2. Lectures supported by voice overs.

Learning and Teaching in the Distance Learning Format

The teaching and learning materials are delivered via an E-learning Portal (ELP). At Northumbria we use Blackboard but there are a range of different platforms available that can provide a secure site. The site is laid out in the same sort of manner as many websites. A series of folders hold the materials for each module that a student is attached to. Within the folder there is a sequence of tabs containing information such as Module Information, Teaching Materials, Assignments, Staff Information, Discussion Boards, Personal Development Plans, Electronic Journals, Examples of Dissertations, and Live Links, etc.



1. Audio visual lectures.

The teaching and learning materials are developed and delivered using software such as Articulate, which converts PowerPoint presentations and Course Genie/WIMBA which converts Word documents. We have also written our own player that allows us to put Video together with PowerPoint slides.

Since long passages of continuous text are difficult to read on screen the materials are generally broken up into shorter texts that are clearly subdivided with appropriate headings. The student is given the option of working through the materials in a chronological order or using the search engine to access specific information, which is particularly useful for revision purposes.

Many of the lectures are supported by voice overs that can be downloaded onto MP3 players, which provides even greater flexibility regarding where students choose to learn. Many use this option to continue their studies whilst travelling to and from their place of work. This approach has contributed greatly to the student experience as one student commented: 'The voice over enables the student to listen to a fuller and more detailed description of the information provided on the screen, which helps clarify matters. Psychologically it also adds to the impression that you are actually listening to a lecture and it creates a more personal bond with the teaching person. Since the person talks to you it seems more natural to respond to that teacher personally through e-mail. I really believe it enhances the interaction.' (See de Witte, 2007)

Academic Student Support

Induction is critical for the distance learners. It is essential that they know what to expect and how to respond well in advance so that they can plan and manage their time efficiently and effectively. During induction on campus students are taken through the documentation that describes what, where and when they will study. The on line process is very similar with the relevant documents supported by a voice over but in addition it needs to be much more explicit about 'how' the process of learning on line will take place.

Students are sent an introductory e-mail in advance of the programme that explains how they will learn on line and what they need to do in order to engage with the process. They are also encouraged to enroll at least two weeks in advance of the beginning of the academic year. This provides time to resolve any enrolment issues, which might prevent the students accessing the on line materials. This is not so critical for campus students who can still attend lectures whilst issues are being ironed out but it is essential for the distance learner.

Prior to the start of the academic year students are also encouraged to complete a series of pre course assignments. These have been designed to orientate them with the ELP structure, functionality and content i.e. how to use a digital drop box, add a thread to a discussion board, etc.

Student support is maintained in a pro-active manner throughout the programme in order to ensure that students feel continually involved. Students are sent regular e-mails announcing conferences, publications or new web links, reminding them of deadlines and any issues likely to impact on their Internet connection to the E-Learning Portal, etc.



3. Virtual Tour – students are provided with guidelines on what they should be observing during a virtual tour which they discuss through the Discussion Board afterwards.

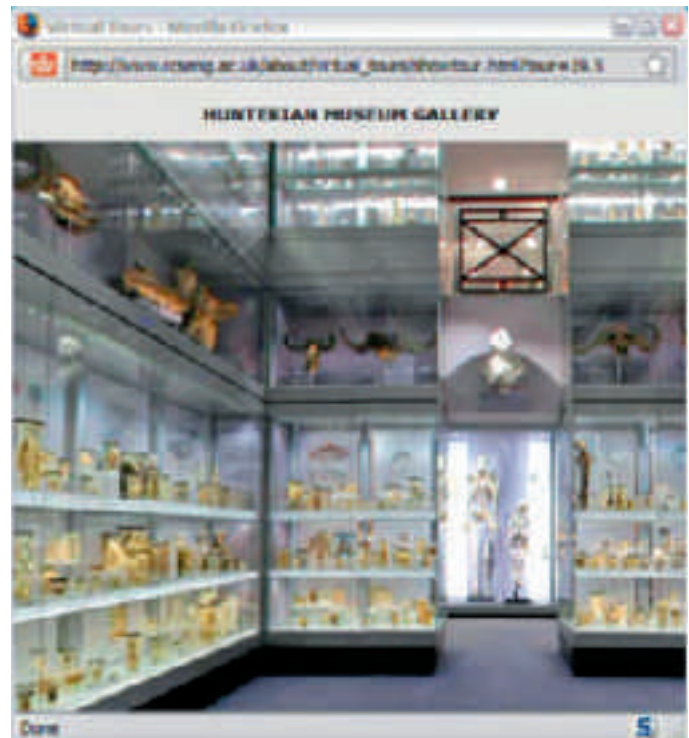
Student Engagement

At Northumbria we want every student to enjoy the excitement and challenge of post graduate research and benefit from the intellectual energy that is derived from that level of engagement. This is important not only for student satisfaction but also for the development of a deep sustainable approach to learning. In the past we have found that this only really started to happen when the student began the research for their dissertation, which is traditionally located at the end of the programme. The dissertation has now been positioned to run through the entire length of the programme so that the student can use all the learning and teaching materials, assignments and the work placed learning experience to support its development. Students are encouraged to start developing their dissertation from the beginning of the programme and consequently become deeply engaged in their studies at a very early stage. The development of the dissertation is supported by a Personal Development Plan (PDP) that provides each student with the opportunity to discuss and develop their ideas with a tutor.

Communication

A range of communication channels are essential in order to ensure that students do not feel isolated. Swift high quality feedback is provided through the following:

- Discussion Boards are used to support student discussions on academic issues raised by the tutor.
- E-Journals are set up for individual students to record their weekly activities during their Work Placed Learning Experience and enables the tutor to support the development of the students understanding.
- Personal development Plans (PDP) are provided for each student to enable them to discuss their dissertation idea with an academic.
- Chat Rooms are used for informal student to student exchanges and have no tutor input or access.
- E-mail is used very regularly for student tutor discussions.
- Telephone used occasionally for broader discussions, i.e. the development of ideas about dissertations.



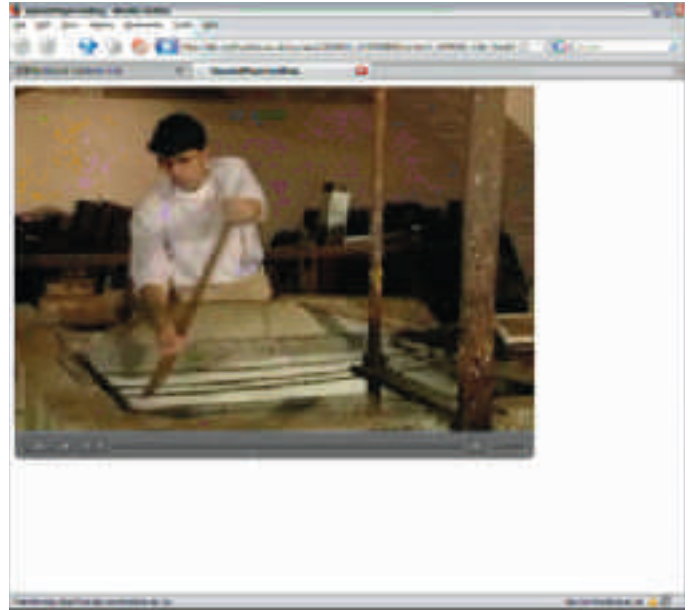
Campus based students may visit local museums and galleries in order to develop their understanding of the care of collections such as approaches to display, lighting, security, environmental management, etc. Prior to the visit the students will be provided with guidelines with regard to which aspects of collections care they should be studying and after the visit they would discuss their observations.

In the virtual world the same learning outcomes can be achieved. The distance learner is provided with the same guidelines as a campus student but the tour is a virtual one and their observations are discussed on line through a Discussion Board.

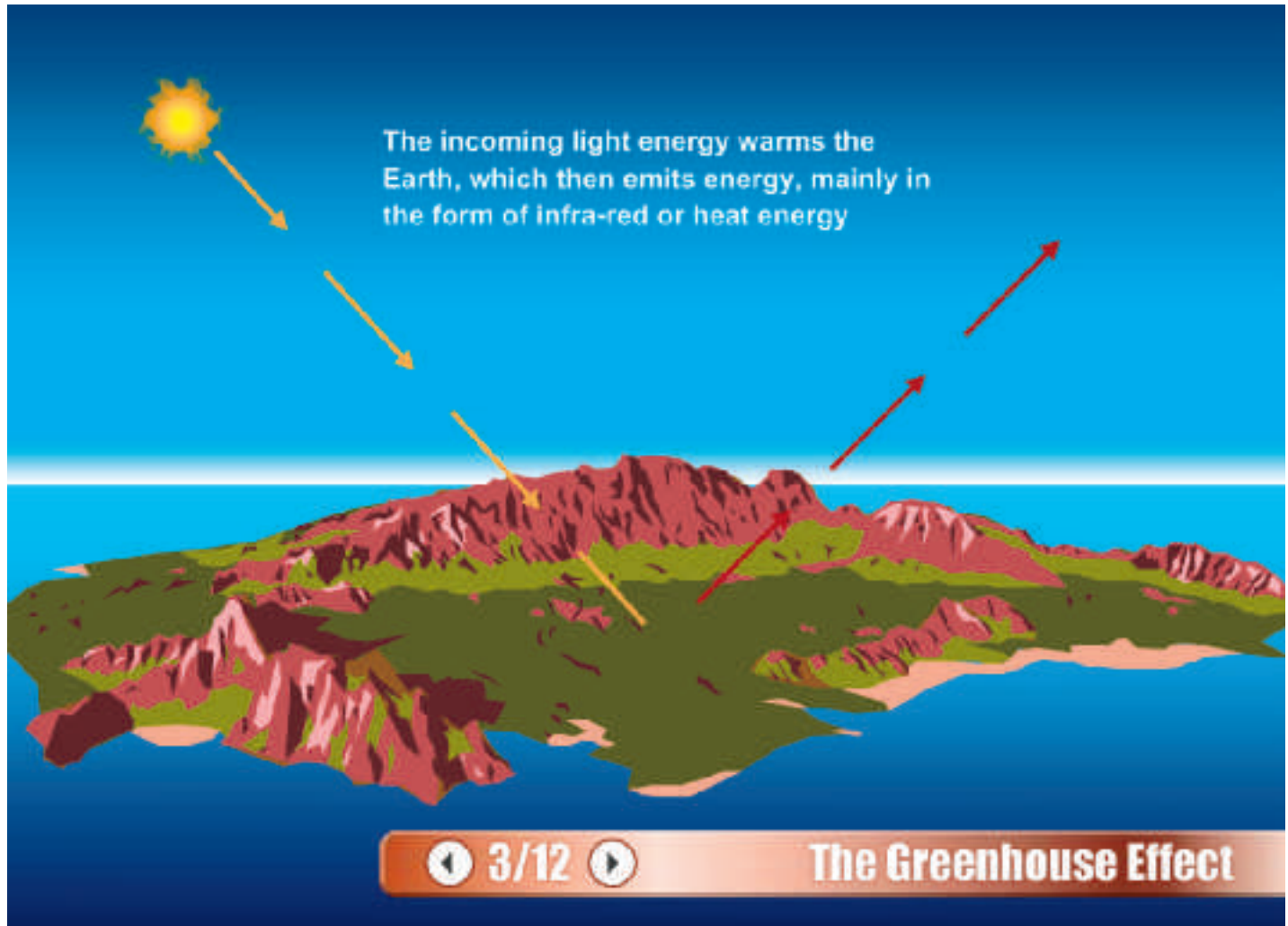
Interactivity

Interactivity is essential to help engage the student with the programme and is provided through the following:

- Short question and answer sessions are integrated into the lectures.
- We also use a wide range of audio visual materials to enable students to understand complex processes such as papermaking as well as procedures that they will have to engage with in working practice such as unframing.
- Three dimensional animated structures are also used to help students understand complex spatial relationships such as building designs as well as complex chemical interactions such as climate change.



4. Audio visual footage. Demonstrations of practical procedures such as papermaking are provided and can be downloaded to a mobile phone.



5. Greenhouse Animation – Animations are used to help students understand complex scientific relationships such as the greenhouse effect.



6. Figurine – Rotating three dimensional objects are provided with a descriptive voice over and hotspots that can be magnified for examination and documentation purposes.

Supporting Materials

In addition to the lectures students are also provided with a wide variety of materials in support of each lecture that can include:

- Bibliographies
- Glossaries
- Key Dates
- Live Electronic Links
- Guidance on the care of specific types of artefact
- Images of characteristic types of deterioration, etc.

Assignments & Assessment

Distance learners are required to achieve the same learning outcomes as campus based students. The assessment is by assignments that are submitted online. The question of authenticity for an assignment that the student develops independently is no different for a distance learner than it would be for a campus student. Software such as Turnitin can be used very effectively to check electronic assignments for plagiarism. Assignments are completed and submitted using the Digital Drop Box which provides students with a receipt and records the time and date of their submission. Once the academic has marked the assignment and it has been moderated the marks and feedback can be posted in the Grade Book on the ELP or sent to the individual student by e-mail. If there is a large student cohort a system called Assignment Handler can be used by an entire teaching team to share and manage the marking workload.

Library and IT Support & Student Services

The library, IT and student services provide a high level of support for all students whether on campus or online. The library catalogue is available online as are subscriptions to a wide range of electronic journals and publications. Students are able to order inter library loans which are sent out to them or they can ask for parts of a publication to be photocopied or scanned and sent to them. The library offers a service 24/7 as do IT support which means that distance learners are not restricted to traditional opening hours should they need help.

Conclusion

Modern technology combined with the Internet have made the virtual classroom a reality that is both exciting and challenging and which can be used to support the delivery of top quality, highly interactive programmes. This offers students the opportunity to choose when, where and at what pace they study. The latter is of particular value to students who do not have English as their first language. At the same time it offers a sustainable approach to learning and teaching that benefits both conservation and the environment.

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Remote Training Program for Preservation and Conservation Provided by the National Diet Library

by **Noriko Nakamura**, Director, IFLA PAC Regional Centre for Asia, National Diet Library

1. Introduction

We have been annually conducting at the National Diet Library (NDL) a group training program called the Preservation and Conservation Training Program intended for all librarians in Japan. The NDL also dispatches its staff members as lecturers for training courses in response to requests from libraries in Japan and overseas. We accept trainees at the request of libraries in Japan and from abroad. In addition, there is a program on preservation and conservation in the curriculum of the training for the staff of Branch Libraries of the NDL in the executive and judicial agencies. We started a remote training program covering the theory of preservation as well as restoration techniques, titled "Basic idea of preservation and conservation", in 2006 in addition to the above-mentioned various opportunities for training.

The NDL currently provides five courses in the remote training program: the digitization of materials, rare and old materials, science and technology information (introduction), science and technology information (reports produced under grants-in-aid for scientific research, doctoral dissertations and standards), and the preservation and conservation, which was the first to be developed. One of the reasons was that the NDL had accumulated training know-how through the group training program. Another reason was that we identified various issues in preservation and conservation through the program, and were aware that there was a need for training in the field. We, as a national library and the IFLA PAC Regional Centre for Asia, realized that it was necessary to meet the needs of training for preservation and conservation in Japan and we had a responsibility to provide the opportunity for such training without any time, spatial or budgetary constraints. We learned that although the results of the after-program evaluation are favorable, the one-day training course is not enough to conduct the actual work of preservation and conservation. Thus we started to shape a remote training program. It was the first of such attempts by the NDL. It took about three years from concept to launch, and about the half of the time was taken for the development work.

2. Creation

2.1 Creation and manpower

In creating the remote training program for preservation and conservation, the Preservation Division of the Acquisitions Department (now Acquisitions and Bibliography Department) in the Tokyo Main Library took charge of developing the content of course materials, and the Library Support Division in the Kansai-kan handled the project management. Plural-duty officers for preservation and conservation, who are not from the

Preservation Division and serving concurrently for the work of the Preservation Division including research and study on preservation and conservation, also joined to develop the content of course materials. Information about how to preserve photos and microforms was commissioned to outside experts.

Before developing course materials on restoration work, it was necessary for the staff of the Preservation Division to initially review and standardize the terms and methods used in their daily restoration work. It was discussed among staff members in the Preservation Division, and fortunately, the discussion had already been in progress prior to the creation of the remote training program. In the final stage of the creation of course materials, the whole documents had to be checked to make it easy-to-understand. The checking was outsourced.

It was important to coordinate the project by involving the Preservation Division, the Library Support Division and the out-source, and continue the work in a mutually-supportive way.

2.2 Policy for developing course materials

The course materials were developed under the following policy:

- The training should be at a basic level to learn the fundamental knowledge of preservation and conservation.
- The training is not intended to produce technical experts, but is aimed at general librarians.
- The training focuses on measures which are necessary and feasible for all libraries regardless of their type.
- The training emphasizes the importance of prevention rather than restoration, and of management rather than technique.
- The training uses course materials in Japanese, but their contents should have a global commonality.
- The remote training program "Basic idea of preservation and conservation" covers the basic content of general preservation and conservation, and the group training program "Preservation and Conservation Training Program" features repair and restoration.

2.3 Content of course materials

Based on the above policy, the training opens with an explanation of the necessity of preservation and conservation of materials, and makes trainees learn the appropriate environment and measures for preservation. The table of contents of each chapter, the objectives and contents and the average time needed for learning are as follows.

Chapter I. Introduction: Basic viewpoint of preservation and conservation

Section 1. Basic idea of preservation and conservation

Section 2. Main causes of material deterioration

Section 3. History of preservation and conservation

Learning objective: Learn the basic viewpoint and idea of preservation and conservation

Average time for learning: 90 min

Chapter II. Storage environment and conservation measures

Section 1. Preservation environment

Section 2. Security and disaster prevention

Section 3. Preservation measures for printed materials – Part 1. Protection and handling

Section 4. Preservation measures for paper materials – Part 2. Media conversion

Section 5. Preservation measures for photos and microfilms

Section 6. Preservation measures for audio-visual materials

Learning objective: Learn the concept of appropriate storage and use including causes of material deterioration and storage environment, and measures for preservation

Average time for learning: 330 min

Chapter III. Idea of preservation and management, and methodology

Section 1. Preservation and management

Section 2. Research for preservation and conservation

Section 3. Development, implementation and evaluation of preservation plans

Section 4. Preservation cooperation activities

Learning objective: Learn the methodology of implementing the basic idea of preservation and conservation and preservation measures learnt in Chapters I and II, in a systematic and organized way

Average time for learning: 90 min

Comprehension test

20 questions from Chapters I, II and III to check the trainees' understanding

Supplemental course materials: "Making of preservation container", "Quick repair", "Binding of Japanese-style books" and "Materials and equipment"

2.4 Technology of the system used and standards

As regards the Learning Management System (LMS), the existing system named "Learning Station" has been adopted, and course materials prepared in accordance with SCORM1.2 standard have been loaded. The SCORM is a standard for ensuring the interoperability of the learning systems and contents of e-learning. Therefore, if it becomes necessary to change to other LMS, we can load the standard-compliant course materials onto the new LMS and operate for a long time without major renovation.



Fig. 1. In this screen the causes of paper deterioration, air oxidation and acidity, are described.
(Section 2 of Chapter 1: Main causes of materials deterioration)

The contract with the vendor for the initial system terminated in February 2010 and we conducted the replacement aiming at release in February 2010 (April 2010-March 2011). The greatest change brought about by the replacement is to provide using SaaS (short for Software as a Service) which means we purchase only services from a vendor. We had installed necessary devices such as servers inside the library to provide the LMS, but we can now provide at a low price without reducing the service level. Accordingly, the current LMS is to be modified

and specifications of the screen are also to be greatly changed. The screen has become much easier for trainees to understand visually and to operate from April 2010.

3. Operation and State of Implementation

3.1 Operation

The term of training is three to four months. One can apply for the course through an application form at the NDL website. After confirming that the applicant is indeed a librarian, we issue an ID and a password to access the LMS.

Instruction messages given by the LMS are visual and auditory; it is said that the combination of both elements magnifies learning efficacy. Questions are accepted by the Library Support Division via e-mail and answers are prepared by the Preservation Division, and are in turn transmitted by the former. We send e-mails of encouragement during the period of training, to keep trainees motivated. After a trainee completes all the curricula and scores 80 out of 100 on the last examination, a certificate is sent from the Library Support Division in PDF format.

3.2 State of Implementation

We have held the “Basic idea of preservation and conservation” course five times (twice in 2006) from June 1, 2006 to February 2009, reaching capacity every time. The number of trainees was 435 (181 in the 1st term and 254 in the 2nd) in February 2006, 201 in February 2007, 200 in February 2008 and 150 in February 2009. The type of participating librarians varies. Although the course materials are provided in Japanese, we saw the participation of Japanese studies librarians from abroad rise; 2 in 2006, 7 in 2007, 9 in 2008 and 10 in 2009.

We launched an English web page “Training Programs for Librarians” (http://www.ndl.go.jp/en/library/training_programs.html) and call upon anyone interested in “Basic idea of preservation and conservation” to refer to it.

Additionally, as a part of MLA (Museum, Library and Archive) collaboration, we will pilot the participation of staff from museums and archives from April 2010. Long has the NDL learned from museums and archives on preservation, it is now the time to give out our training in return.

4. Reception

Trainees are asked to answer questionnaires on a voluntary basis. The response is highly favorable, many trainees commenting that their attitude towards preservation had changed and that the training had been practical.

We received numerous opinions and requests, “too many course materials” prominently among them. We had been well aware from the beginning of the possible burden imposed by course materials for trainees. However, in view of our objective to provide a comprehensive training package on preservation from basic idea to practice, we decided that it is unavoidable.

Concerning the system, many trainees pointed out that it would have been much more helpful if the images, especially of repairing and making a preservation container, had been animated. The system allows trainees to download course materials as well as to use them online. However, as both materials are viewable in the same format, some trainees commented that they would like the usability of downloaded materials to be improved.

5. Achievements and Further Challenges

The remote training program “Basic idea of preservation and conservation” has been implemented 5 times since 2006 and 986 trainees have completed the training. It has had a largely favorable reception.

Progress has been made but challenges remain. We have not sufficiently caught up with the developments in the field of preservation. Digitization of information is ever on the march and it is already mainstream to digitize materials to preserve them. We need to revise our course materials accordingly.

In the case of the group training program, we often receive thanks for giving direct, detailed guidance for repair work. We need to offer more comprehensible, usable course materials for the remote training program as well. As pointed out in the questionnaires, room for improvement remains, such as employing moving images and making downloaded materials more easily viewable.

As for the operational framework, it is necessary to provide better support for recipients of e-learning. Trainees frequently inquire about the system and ask for reissue of IDs and passwords. We need enough manpower to cope with questions and requests, and it is advisable to equip the system with the function to reissue IDs and passwords to save labor.

In other words, we need to renovate the system of the remote training program, revising course materials and making LMS more flexible, which in turn requires rearrangement of the internal operation at the NDL.

This article describes The NDL remote training program on preservation as concretely as possible. There is international common ground as well as regional differences, according to weather and paper quality, in the field of preservation. Nevertheless, I do hope that our experience will be of some use to libraries planning to develop remote training programs of their own.

E-Mergency, Virtual Learning for the Training in Emergency Planning for Libraries and Archives

by Maria Barbara Bertini and Simona Budassi

Maria Barbara Bertini is Director of the State Archives of Milan, guest scholar for six months at the Getty Conservation Institute – Los Angeles, author of numerous publications on preventing emergencies; **Simona Budassi** is restorer of library materials and Doctor in “e-learning – Development and Delivery” at the G. d’Annunzio University of Chieti and the Telematica Leonardo da Vinci University of Torrevicchia teatina (CH).

In the last years, the world of didactics, especially in university and continuing education fields, has seen an amplification of its own resources and methods.

The development of more and more effective and customizable technologies, the changes in workplace habits and time, the increasing requests for updating and qualified staff have promoted methodologies, such as e-learning, that effectively answer the need for high-quality training and information, and are easy to use and permanently available.

In this process of constant development, e-learning has been using technologies and resources (*virtual reality* and/or *serious games*) that were not created at first for didactic purposes. Originally created for a recreational use, virtual environments can enhance today theoretical contents.

The **e-Mergency** project, set up for this scope, was thought up to show the efficiency of matching virtual reality models with traditional e-learning ones, allowing evaluation through on line classes called “e-Mergency: Training on-line in Emergency Planning for Libraries and Archives”.

The idea was born out of a meeting between two persons, both willing to educate a large number of archivists and librarians in emergency planning for the preservation of our cultural heritage: Maria Barbara Bertini, Director of the State Archives of Milan and Simona Budassi, restorer of library materials and Doctor in “e-learning – Development and Delivery”.

In spite of the law conditions and the - slow - development of small projects aimed to raise awareness to the risk issue, the situation of staff training in Italy is not so rosy. A research questionnaire carried out among several libraries involved in the e-Mergency project underlined a gap in training. This gap may concern many other national institutions as it shows a generalized lack in emergency planning even in important structures.

An analysis of the online training supply in emergency planning showed that today a user can only access to self-study trainings which are not so different from any methods of updating with traditional materials. Other types of content delivery, such as virtual classrooms, are more difficult to organize because of the necessity to match the temporal and organizational needs of individual users, which requires a constant synchronization. The difficulty to capitalize on the theoretical contents and to trans-

late them into action, in the form of practical works and tests, is common to all the cases of existing online training.

The didactic model, developed by Dr Simona Budassi, has a main ambitious goal: to use the remote training main feature, that is to say the “no-presence”, and to translate it into a collaborative job, using the possibilities offered by the virtual reality allowing mainly to put in practice the theoretical concepts.

As detailed before, the goal of the “e-Mergency” project is to provide tools and useful information in order to prevent and answer possible situations of emergency inside libraries and archives. E-Mergency uses the e-learning platform ILIAS: the concepts are proposed through slides with audio comments. It is divided in four lessons, at the end of which a test of auto-evaluation provides every consumer with a feedback of his own degree of learning. The lessons are proposed with didactic materials that integrate and complete the presentation.

A disaster, however, might occur, and occurs even if all the measures of prevention have been updated. For this reason, every institute should be able to make an ad hoc plan which describes the different operations to be set up and the resources to be mobilized to face the emergency.

The more a plan is detailed, the easier it becomes to limit the damages and, accordingly, the operations of clean-up. For this reason, a good theoretical preparation is not only necessary but also a continuous and mindful cooperation with the experts of the different sectors involved. It is requested to do exercises that proactively involve the operators in emergency conditions.

However, regarding the resources, to organize training is not an easy task. From this statement is born the project of involving all librarians and archivists in a simulation inside a virtual environment. They are invited to share with all the participants the answer or “decision-making” of the plan, allowing then to develop and strengthen soft individual skills.

The virtual environment in use is called EUTOPIA, a program realized by the Natural and Artificial Cognition Laboratory (University of Napoli): its object is to use the technology in order to make training in mediation, available to countries affected by ethnic conflicts between their communities. It allows therefore to carry out a simulation in role-playing, where every user plays a defined role and interacts with the others to reach the preset objective. **Figure 1** (p. 28) shows one of the settings offered by EUTOPIA: in the centre, the avatar or rather the users’ images pop up in the virtual environment; on the left the toolbar with which the user can modify the expression of his own avatar’s face or have him to gesture. The avatars can communicate between them through the tool voice or by local chat. Every ses-

sion could be recorded and then reviewed both by the tutor and the participants.

E-Mergency allows the users to virtually experiment a situation of emergency. As it is not possible to simulate the practical actions to carry out (transfer of collections, conditioning of the room, etc.), it has been decided to simulate the phase of reaction to the emergency. This can appear as an easy phase, however it actually requires a lot of lucidity and preparation; training in secure environment, as the virtual one, allows to provide the requisite tools in case of true emergency.



Example of responses in case of flood:

1. DO NOT touch and DO NOT stay in the stagnant water. You could be electrified.
CAUTION: the importance of the flood will determine the necessity to call the public safety and to cut off or not the electricity.
2. DO NOT touch a person who has been crossed by electric current.
3. Turn off the source of water or ask/find the person in charge to do it.
4. In case of gas smell, open the window and leave the building.
5. DO NOT touch books or other library materials.
6. Contact an expert of the department:
 - Restoring coordinator
 - Expert in restoring
 If these two experts cannot be reached, contact another team member.
7. Turn off the heating system.
8. Turn on the air conditioning system, even in winter, if it is possible, or ask the person in charge to do it.
9. Open doors and windows to optimize the air circulation to its maximum.
10. Use dehumidifiers and fans.
11. Remove stagnant water and withdraw water inside all containers.

Once outside the building and waiting for the staff in charge of recovery:

1. Join the staff to assign them tasks and to examine the priorities in the rescue operations. You will form a team with the best abilities to do the job.
2. Establish a command post with office equipment (computers, photocopiers, telephones, cell phones, etc.).
3. Create a recovery station with lockers, fans, tables, shelves, plastic sheets, materials for drying.
4. Notify to the authorities the nature of the damages. Contact the similar institutions to yours and professional associations for help.
5. Assign a press officer to communicate with the media about the situation and to ask for assistance or volunteers. You may need to restrict the access to collections.
6. Check the availability of financial resources: the insurance company and the contract, if existing, the potential institutional assistance and external resources.

7. Contact the appropriate companies to request: generators, freezers, systems for freeze-drying, refrigerated trucks, etc.
8. Restore the security system as soon as possible.
9. List damages:
 - What has been damaged?
 - Where is the damaged material? (draw up a map)
 - How many pieces have been damaged?
 - How wet is the material?

This short list might let us understand how difficult it is for somebody to adopt properly these instructions and to be clear-headed enough at the right moment as to bring back the instructions to memory and act properly.

Here is the base for using simulation: the exercise will help the user to memorize these instructions until they become automatic, and give him the ability to put them in practice in difficult situations with major emotional component.

So, what do users do in EUTOPIA? They confront and consult each others to tweak the sequence of activities to be developed, the operations to be carried out, the definition of the priorities, the planning of the activities.

More precisely, a flood simulation was imagined, flood being one of the most frequent cases; the "role-playing" session storyboard contains all the information necessary to carry out the simulation. It shows in details:

- the type of simulated event;
- the typology and location of the concerned materials;
- the nature and degree of damages that the materials suffered;
- the objective to be reached.

The different avatars and the several characters' functions have been defined depending on the library areas concerned with the event and randomly assigned to the participants.

The tutor, from the administration control board, starts the "role-playing" with the running of the session. Then, the user, associated with a particular event, enters the session. He loads the environment, then visualizes a window of summing-up. The window includes a message of welcome, the story-board description and the characteristics of his assigned character (figure 2). After



the closing of the window, the user is directly “materialized” through his/her avatar in the selected environment.

The session starts once all the participants are connected. The tutor welcomes everybody and invites the chair of the emergency group to start the action. The participants may freely communicate between them: they are able to correct and integrate the others’ actions, they may collaborate in the decisions to take, and in the evaluation of the most appropriate interventions. The tutor has a peripheral role in this interaction and limits himself to moderation and motivation every time the action is in slow down or when the users ask for help or advice. **Figure 3** is a simulation session screenshot: in the window reserved to the chat, the exchanges of messages among the consumers are underlined in black, the tutor’ interventions in blue and in red are the tutor’ annotations input during the record review.

Results

The analysis of the results extracted from the final survey completed by all the users at the end of the training gives an idea of the project success. To be more specific, the participants (around 32) were divided in two groups, one of control (class in

ILIAS) and one experimental (class in ILIAS + EUTOPIA), in order to compare results and check the validity of the virtual-based training system.

The survey included general questions on the training experiment and specific ones on the use of EUTOPIA. For each answer, the participant could assign a rank on a scale from 1 (lowest value, equivalent to « very little ») to 5 (highest value, equivalent to « very »).

The data of the most significant questions are reported below; parentheses indicate the number of users who were submitted to the survey:

1. Do you consider this online training experience positively? (32 participants)

1= /
2= 1
3= 3
4= 9
5= 19

2. Has the experience responded to your expectations? (32 participants)

1= /
2= 2
3= 5
4= 9
5= 19



3. Did the class provide useful tools to be used in your job?
(32 participants)
- 1= /
2= /
3= 6
4= 6
5= 21
4. Would you like to use this technology in other kinds of training? (32 participants)
- 1= 1
2= 1
3= 2
4= 4
5= 24
5. According to you, does the program seem easy to use?
(10 participants)
- 1= 3
2= /
3= 1
4= 6
5= /
6. Do you think that the use of EUTOPIA has facilitated the integration of all participants on the ILIAS platform?
(10 participants)
- 1= 3
2= /
3= 4
4= /
5= 3

From the results of the survey conducted among the two groups and analyzed in details in the previous pages, we may underline that the users appreciated a lot the training experience and that their skills were raised. Materials were helpful for all the participants and the increase of competence was more or less the same for everyone.

Concerning the model here presented and the contents transmission, the presentation through slides was appreciated by users: questions related to topics discussed only in the additional didactic materials showed a lack of preparation in the slides' presentation. So the combined use of text – image – audio comments seems to be the most interesting and effective tool, according to e-learners' point of view.

As expected, users showed a major difficulty in approaching and fully exploiting the educational potentiality of the virtual environment. During the simulation, the positive aspect was the possibility for users to identify themselves with their avatar and the suggested situation, not limiting themselves to play their role but diving into the experience, thus performing a strong group feeling and showing active commitment during collaborative times.

Le projet "E-Mergency", pour les bibliothèques et les archives : un apprentissage virtuel pour la formation aux plans d'urgence

Récemment, les progrès réalisés vers des technologies de plus en plus personnalisées et efficaces, les changements survenus dans les habitudes et les horaires de travail, les besoins accrus en personnel qualifié et doté d'un savoir actualisé ont entraîné l'usage de nouvelles méthodes d'apprentissage telles que le e-learning.

Ainsi, le e-learning a-t-il permis d'utiliser des technologies et des ressources qui n'avaient pas été créées initialement dans un but didactique. C'est le cas de la réalité virtuelle, dont l'intérêt majeur est de mettre en pratique des concepts théoriques.

Le projet « e-Mergency », développé par le Dr Simona Budassi, propose une formation en ligne aux plans d'urgence à l'intention des bibliothécaires et des archivistes. L'objectif est de démontrer l'efficacité de modèles récents issus de la réalité virtuelle combinés à ceux, plus traditionnels, de l'enseignement à distance, favorisant ainsi une plus grande implication des participants. Il s'agit de combler notamment l'absence généralisée de plans d'urgence dans les institutions italiennes, absence qui a pu être constatée jusqu'au sein même de structures importantes.

« E-Mergency » utilise la plateforme de e-learning ILIAS : les concepts sont proposés à travers des diapositives accompagnées de commentaires audio. Le logiciel EUTOPIA permet quant à lui de simuler une situation d'urgence dans laquelle chaque participant aura un rôle prédéfini à jouer en utilisant un avatar et pourra interagir avec les autres afin d'atteindre un but prédéterminé.

« E-Mergency » permet aux utilisateurs d'expérimenter virtuellement une situation d'urgence. Comme il est impossible de simuler des opérations telles que le déménagement de collections ou leur reconditionnement, c'est la phase de réaction à un désastre (une inondation), qu'il a été choisi de simuler. La formation, réalisée dans un environnement virtuel, permet ainsi de proposer les outils qui seront nécessaires en cas d'urgence réelle. C'est la base de la simulation: les exercices aideront l'utilisateur à mémoriser les instructions à suivre jusqu'à ce que celles-ci devenant automatiques, il puisse les mettre en pratique en cas de situation difficile et mieux gérer ainsi la charge émotionnelle inmanquablement suscitée.

Un questionnaire, rempli par chaque utilisateur à la fin de la formation, a permis de mesurer le succès du projet. L'analyse des résultats a montré que les participants ont tous apprécié l'expérience et mieux développé leurs compétences. A propos du modèle utilisé et notamment de l'usage des diapositives, les « e-apprenants » ont considéré l'utilisation combinée du texte, de l'image et du son comme l'option pédagogique la plus intéressante et la plus efficace.

Même s'il s'est révélé difficile, pour les utilisateurs, de pleinement exploiter toutes les potentialités éducatives de la réalité virtuelle, la possibilité pour chacun de s'identifier à son avatar et d'être ainsi immergé dans une situation simulée est l'un des atouts majeurs constatés, atout qui a suscité un fort esprit collaboratif et un réel engagement pendant les phases de collaboration.

“E-Mergency”, Aprendizaje virtual para la formación en planes de emergencias para bibliotecas y archivos

En los últimos años, el desarrollo de tecnologías cada vez más eficaces y personalizadas, los cambios en las costumbres y horarios en el lugar de trabajo, las necesidades en aumento de actualización y de un personal cualificado promovieron metodologías tales como el *e-learning*.

En este proceso de constante desarrollo, el *e-learning* ha utilizado tecnologías y recursos que no han sido creados originalmente con un objetivo didáctico, como la realidad virtual, que permite sobre todo poner en práctica conceptos teóricos.

El proyecto “E-Mergency”, desarrollado por la Dra. Simona Budassi, propone formaciones en línea en planes de emergencia para bibliotecas y archivos. Fue creado para demostrar la eficacia combinada de modelos de realidad virtual con los tradicionales de *e-learning* que pueda favorecer una mejor colaboración, y para responder a la falta generalizada de planes de emergencia constatada en Italia, incluso en estructuras importantes.

“E-Mergency” utiliza la plataforma *e-learning* ILIAS: los conceptos son propuestos a través de diapositivas con comentarios audio. EUTOPIA es la tecnología empleada para simular una situación de emergencia, donde cada usuario juega un papel definido por intermedio de un avatar e interactúa con los demás para alcanzar la meta prefijada.

“E-Mergency” permite a los usuarios experimentar situaciones de emergencia virtualmente. Como no es posible simular acciones como el traslado de colecciones o el reacondicionamiento de salas, se decidió simular la fase de reacción durante emergencias. La formación en un ambiente virtual permite así proveer las herramientas requeridas en caso de emergencias reales. En esto reside la base de la simulación: los ejercicios propuestos ayudarán al usuario a memorizar las instrucciones para que se vuelvan automáticas y le darán a él la habilidad de ponerlas en práctica en caso de situaciones difíciles con una mayor carga emocional.

Un cuestionario fue completado por todos los usuarios al final de la formación para tener una idea del éxito del proyecto. El análisis de los resultados muestra que los usuarios apreciaron mucho la experiencia y que desarrollaron sus competencias. En lo que concierne a este modelo y a la presentación a través de diapositivas, el uso combinado de texto, imagen y comentarios audio parece ser más interesante y eficaz según el punto de vista de los *e-learners*.

Incluso si fue difícil para los usuarios explotar la potencialidad educacional del entorno virtual completamente, uno de los aspectos positivos fue la posibilidad de identificación de cada uno de ellos con su avatar y de penetración en la situación sugerida. Así se reforzaron el sentimiento colectivo y el compromiso activo durante el tiempo de colaboración conjunta.

ILAM: Capacitación desde una perspectiva latinoamericana

by Georgina DeCarli

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Para inicios de este siglo XXI existen en América Latina y el Caribe más de 7,000 instituciones museológicas que preservan una buena parte del patrimonio cultural y natural. La gran mayoría de éstas (aproximadamente un 80%) no cuenta con los recursos para tener un personal especializado o debidamente capacitado para el ejercicio de sus funciones.

En los museos latinoamericanos, salvo algunas excepciones, existe un gran vacío de formación museológica a nivel terciario en las personas que ocupan cargos de responsabilidad, en su mayoría con educación terciaria en otras disciplinas. El resto del personal técnico y profesional, sólo eventualmente cuenta con apoyo institucional para su capacitación, pero si ésta se lleva a cabo, es en la mayoría de los casos por iniciativa personal. Consecuentemente, la ausencia de personal especializado para la ejecución de las funciones museológicas (tanto en el área técnica como administrativa), hace que las personas que laboran en un museo tengan que asumir las más diversas tareas y funciones sin estar debidamente capacitadas para ello.

En aquellos casos en que los museos sí cuentan con especialistas en las diversas áreas de trabajo (museólogo, museógrafo, conservador, educador, entre otros), éstos no están debidamente reconocidos en las categorías de servicios profesionales y los salarios son bajos comparados con sectores equivalentes. Sin embargo, es en general muy alto el nivel de compromiso institucional del personal de los museos, sorprendiendo con frecuencia su iniciativa, creatividad e inventiva para sacar el máximo provecho de los escasos recursos disponibles.

La situación anterior se ve agravada debido a la falta de políticas nacionales o institucionales, tanto para la oferta de diversas opciones de capacitación, como para su acceso. Son muy pocos los museos o las instancias gubernamentales de las cuales los museos dependen que tienen previsto algún tipo de recursos para que su personal se capacite; y en el caso que éste exista, su difusión y posibilidades de competir distan de ser democráticas. Por otro lado, si bien existen lineamientos establecidos sobre la necesidad de capacitación de personal en casi todas las instituciones, no sucede lo mismo sobre el establecimiento de prioridades de capacitación, ni las estrategias para poder determinarlas; esto es fundamental, ya que tiene un efecto clave en las posibilidades de crecimiento y desarrollo institucional.

Debido a las situaciones brevemente expuestas, en América Latina y el Caribe, las instituciones salvaguardas del patrimonio enfrentan una serie de problemas de tipo estructural, institucional y político-económico que afectan sus labores de preservación, comunicación e investigación del patrimonio. Si bien muchos de los problemas se originan en causas externas a las instituciones, es cierto que otros tantos se generan en situaciones internas que además van a afectar el cómo se enfrentan y solucionan los problemas surgidos "afuera".

Una consecuencia directa de esta situación la vemos en los estudios de público, los cuales nos arrojan sus implacables y desoladores resultados: "el museo es un lugar al que no se va". En efecto, el potencial público visitante prefiere otras opciones y ofertas de recreación y uso de su tiempo libre. Es evidente que esto incide negativamente en un problema crónico de la baja asistencia de público a nuestros museos y de las posibilidades de difusión de nuestro patrimonio, todo lo cual de alguna manera pone en tela de juicio nuestra propia existencia institucional.

Principales problemáticas de nuestras instituciones museológicas

Como uno de los problemas internos más comunes se puede mencionar la ausencia de un conocimiento teórico y práctico del campo de la museología que permita a los miembros del personal orientar su quehacer técnico-administrativo y otros que afectan el desarrollo de dichas instituciones patrimoniales. Más allá de la museología, otros temas tradicionalmente "descuidados" lo son por ejemplo: imagen institucional, administración o comercialización de productos turísticos.

De manera más específica podemos mencionar las siguientes limitaciones internas:

- Carencia de un marco general de referencia que explique la relación orgánica de las funciones que desempeña el personal en la cotidianeidad de la institución.
- Parcial comprensión de las funciones de investigación, preservación y comunicación del patrimonio, lo que limita la relevancia social de la institución.
- Necesidad insatisfecha de herramientas teórico-prácticas en la administración de instituciones culturales, que favorezcan su sostenibilidad.
- Desconocimiento de formas de relacionamiento con la comunidad para su involucramiento como público privilegiado, aliada o socia de la institución.

A estas dificultades debemos sumar una serie de situaciones que, si bien no son todas necesariamente problemáticas en sí mismas, sí resultan en un cambio de escenario para las acciones del museo. Algunas de ellas son:

- Contracción del Estado y reducción de los presupuestos para el sector cultural
- Integración del aspecto cultural y ambiental en proyectos de desarrollo
- Desarrollo vertiginoso de las Tecnologías de Información y de Comunicación (TIC)
- Importancia cada vez mayor de temas como mercadeo y publicidad para un museo
- Aumento en la demanda del turismo cultural y ambiental

Situados en estos nuevos escenarios, las instituciones patrimoniales y sus trabajadores se enfrentan con nuevas situaciones de entorno, que muchas veces se convierten en retos a los que no pueden dar respuesta en forma satisfactoria, ya que demandan de ellos un cambio de actitud hacia la forma tradicional de investigar, preservar y comunicar el patrimonio cultural y natural. Ello se traduce en la necesidad de por un lado, adquirir conocimientos y habilidades en áreas quizás hasta ahora no “propias” de la práctica museal cotidiana, y por el otro, de reforzar las nociones de las áreas más “tradicionales”.

Es ante esta situación que el Instituto Latinoamericano de Museos (ILAM) decidió crear la oferta de capacitación **Talleres-ILAM** en sus modalidades virtual y presencial, partiendo del interés de propiciar en las instituciones museológicas, el desarrollo de una museología acorde a nuestra realidad latinoamericana, tratando de aportar soluciones por medio de una capacitación práctica.

Esta propuesta de capacitación se enmarca dentro del proceso de educación continua, donde el conocimiento teórico y práctico relacionado con el trabajo del museo, se renueva y se adapta a las nuevas exigencias de las condiciones del entorno de la institución, lo que permite mejorar la relevancia social del museo y su sostenibilidad.

Las temáticas abordadas por los Talleres son muy diversas y se agrupan en grandes temas:

- **Museología** (p.ej. Museo y patrimonio inmaterial: memorias de ayer, hoy y mañana; Diseño y montaje de exposiciones)
- **Comunicación** (p.ej. Conociendo el Público de su Museo; Identidad visual para instituciones culturales: aplicación de marca, Museos de Historia Natural: públicos, mensajes y lenguajes en el siglo XXI)
- **Preservación** (p.ej. Cómo marcar y preservar objetos culturales en depósito; Conservación preventiva: acciones cotidianas en manos de todos)
- **Administración** (p.ej. Administración general de museos; Museo vivencial: oportunidades en torno al mundo corporativo y organizacional)
- **Registro** (p.ej. Registro y catalogación de colecciones; Enfoques curatoriales múltiples)
- **Voluntariado** (p.ej. Voluntarios y amigos del museo: amor, pasión y profesionalización)
- **Turismo** (p.ej. Desarrollo y comercialización del Producto Turístico Cultural)

Metodología participativa

Los factores internos que no permiten que las instituciones patrimoniales y sus trabajadores puedan desarrollar eficientemente las funciones museológicas a su cargo, tienen parte de su solución en una capacitación intensiva, sustentada en la experiencia de los participantes y las condiciones de realidad que viven, es decir, una capacitación sensible que, sobre la base de un marco general, integre las particularidades y necesidades de los participantes.

La modalidad de los **Talleres-ILAM**, tanto en su versión virtual como presencial, por ser de tipo teórico-práctico, cuenta con dos características fundamentales: la participación activa del

profesor y los estudiantes y la construcción del conocimiento a partir de las experiencias de quienes realizan el taller, favoreciendo la asimilación de contenidos de una manera ágil, condensada y actualizada, lo que permite a los participantes la aplicación creativa de los contenidos teórico-prácticos en sus instituciones.

En cada taller se abarca de manera concentrada un tópico específico dentro de las áreas temáticas fundamentales de la administración, investigación, preservación y comunicación del patrimonio. Se busca que al concluir, los participantes hayan adquirido información actualizada sobre la temática, así como también una práctica para su implementación en su quehacer profesional.

Durante el desarrollo de cada taller los participantes estructuran un trabajo final / proyecto, individual o grupal, que servirá de insumo para la labor que desarrolla su Institución; además de la evidente ventaja que esto significa para la operatividad del trabajo diario, un valor agregado es el sentimiento de identidad y compromiso con el buen desarrollo de los lineamientos institucionales por parte de los participantes en el taller.

Profesores del ILAM

Para el ILAM, la preparación del personal de las instituciones patrimoniales debe cubrir, no sólo su capacitación en los diversos campos de la museología, sino que todos estos conocimientos deben estar enfocados en el contexto de la realidad cotidiana de las instituciones tomando en cuenta sus limitaciones y potencialidades y el establecimiento de una nueva relación con la comunidad.

Para que esto sea posible, ILAM cuenta con un equipo de profesionales de diversos países de la región, altamente calificados, con amplio conocimiento del patrimonio cultural y natural latinoamericano, así como de la realidad que viven las instituciones latinoamericanas.

De esa manera, los profesores cuentan con una mejor capacidad de comprender las situaciones museales particulares con las que se presenta cada participante y de retroalimentar sus dudas tomando en consideración las potencialidades y retos de cada uno.

Perfil de participantes

La oferta de capacitación está dirigida a todas aquellas personas que laboran en instituciones que se encuentran comprometidas con labores de administración, investigación, preservación y comunicación del patrimonio cultural y natural: museos, galerías, centros culturales, sitios históricos, arqueológicos, zoológicos, botánicos y parques naturales, entre otros, principalmente de América Latina.

Cada taller está especialmente diseñado para trabajar con el personal profesional y técnico de una institución y también para instancias administrativas de las cuales dependen museos e instituciones afines (Asociaciones de Museos, Direcciones de Museos, Direcciones de Parques, Consejos de Cultura, entre

otras) y que estén interesadas en ofrecer capacitación a diversos sectores profesionales y técnicos, como administradores, educadores en museos, documentalistas, museógrafos, entre otros.

Desde el 2003 hasta el 2009, 321 instituciones de América Latina, el Caribe y España inscribieron a uno o más miembros de su personal para participar en los Talleres ILAM. En su mayoría se inscribió una persona por taller, a veces 2, y en circunstancias especiales algunas instituciones inscribieron a grupos de 3 a 8 personas para atender alguna problemática particular o emprender una acción de manera intensiva.

Total de instituciones	País
40	Argentina
6	Bolivia
21	Brasil
23	Chile
29	Colombia
10	Costa Rica
14	Ecuador
5	El Salvador
7	Guatemala
10	Honduras
50	México
5	Nicaragua
3	Panamá
19	Perú
12	Puerto Rico
7	Rep. Dominicana
14	Uruguay
17	Venezuela
29	España
321	TOTAL

1. Listado de instituciones que recibieron capacitación.

Las instituciones participantes no sólo se encuentran en la capital, sino que muchas se ubican en diversas provincias o estados, aunque ciertamente para ILAM sería deseable la participación de una mayor variedad de instituciones en cuanto a tamaño y localización, ya que las más pequeñas y de menor presupuesto se ven limitadas por cuestiones económicas (pago del taller). Con ello, un gran número de instituciones participantes son museos grandes (o privados) que tienen un presupuesto que les permite destinar recursos para la capacitación de su personal.

Percepción de los participantes

No obstante lo anterior, el vertiginoso desarrollo de las Tecnologías de la Información y la Comunicación (TICs) indudablemente ha posibilitado que cada vez más personas que viven en zonas alejadas de los centros tengan acceso a capacitación que de otra manera no podrían aprovechar. La posibilidad de acceder a capacitación sin necesidad de movilizarse hacia los centros urbanos, de abandonar el trabajo o de seguir un horario es sin duda alguna un elemento favorecedor para muchas personas.

Otro aspecto de mucho interés para los profesionales participantes en los Talleres ILAM es lograr entrar en contacto con colegas de toda la región, lo cual es una experiencia invaluable en términos de compartir prácticas, conocimientos, problemas y soluciones. Tanto para sentirse acompañados en sus errores y frustraciones como para conocer iniciativas exitosas y buenas prácticas, se trata de una excelente oportunidad que los participantes pueden utilizar para aprender sobre nuevas estrategias que pueden ser adaptadas a sus instituciones (¡o bien desechadas de plano!). Así las cosas, la finalidad de juntar en un solo espacio a profesionales de instituciones a primera vista tan disímiles es tan sencilla como “evitar tener que inventar el agua tibia”.

Experiencia

Es así como desde el 2002 existe una oferta permanente a profesionales y personas interesadas en cursos bajo la modalidad a distancia vía Internet, en español. En cada taller se presenta, discute y resuelve un tema específico, durante un período de cinco semanas, bajo la modalidad de educación virtual. Esta se realiza directamente por medio de la comunicación directa profesor-estudiante(s) y estudiantes entre sí, a través del Portal del ILAM con la plataforma Moodle, y el uso de correo electrónico. Al inicio de cada año, ILAM presenta y difunde la lista de los talleres a impartirse; las temáticas son diversas, tratando de dar respuestas a problemas puntuales detectados por el intercambio de información con nuestros usuarios.

Para este 2010, ILAM ha calendarizado los siguientes talleres virtuales:

- Patrimonio Intangible: memorias de ayer, hoy y mañana
Profesores: Karina Durand y Carlos Vázquez (MX)
- Curaduría para museos / colecciones de Arte
Profesor: Fernando Almarza (VE)
- Museos y Públicos con Necesidades Especiales
Profesor: Oscar Navarro (CR)
- Tratamiento del Patrimonio Funerario y Religioso: entre el respeto, el miedo y el amor
Profesora: Patricia Ceci (AR)
- Cómo marcar y preservar bienes culturales en depósito
Profesora: Ana Eduarte (CR)
- Diseño y montaje de Exposiciones
Profesora: Laura Dragonetti (AR)
- Comunicación e interpretación en Acuarios, Zoológicos y Botánicos
Profesor: Carlos Fernandez (AR)
- Museo Vivencial: oportunidades en torno al mundo corporativo y organizacional
Profesor: Carlos Durand y Karina Durand (MX)
- Administración general de Museos
Profesores: Claudio Gómez y Cecilia Jaña (CL)

- Optimizando el Centro de Documentación de su Museo
Profesor: Álvaro Agudo (VE)
- Registro y Catalogación de Colecciones
Profesor: Fernando Almarza (VE)
- Museos de Historia Natural: públicos, mensajes y lenguajes en el siglo XXI
Profesora: Sandra Murriello (AR)
- Planificación Estratégica para Museos
Profesores: Claudio Gómez y Cecilia Jaña (CL)
- Servicios y productos didácticos para Museos
Profesor: Luis Gómez (CR)
- Guionismo para Exposiciones
Profesor: Carlos Vázquez (MX)
- Desarrollo y comercialización del Producto Turístico Cultural
Profesor: Luis Patrucco (BR)

Desde el 2000, existe también la oferta de **talleres presenciales**, los cuales se organizan a solicitud de instituciones interesadas. Son intensivos, impartidos en una semana durante la cual se desarrolla el tema de interés de la institución solicitante y el profesor de ILAM se traslada al país que requirió la capacitación. Son pues, talleres “a medida”.



2. Taller ILAM modalidad presencial: Registro y Catalogación de Colecciones, Centro León, República Dominicana con el Profesor Fernando Almarza-Ríquez, julio 2009. Foto: Centro León.

Esta modalidad ofrece igualmente ventajas como por ejemplo que por un bajo costo *per capita*, la institución concentra la participación y formación de su personal alrededor de una temática que afecta a la institución.

Es evidente lo beneficioso que resulta tanto para la institución como para su personal, no tener que incurrir en los problemas por todos conocidos de desplazamiento de personal con largos periodos de abandono de tareas, dependencia de un currículo rígido que quizás no responde a las necesidades específicas de la institución, así como complicaciones de logística.

También existe la posibilidad de organizar con la institución interesada un taller virtual “a medida”, en el cual de igual modo se abarcan aquellos temas específicos que la institución requiere.

Para el 2010, ILAM ha calendarizado los siguientes talleres presenciales, en conjunto con el Centro Cultural Eduardo León Jimenes en República Dominicana:

- Diagnóstico sobre necesidades y recursos didácticos en los museos
Profesor: Luis Gómez (CR) ya impartido
- Conservación Preventiva: acciones cotidianas en manos de todos
Profesora: Ana Eduarte (CR)

Nuestra visión en materia de capacitación

“Inclusión, neutralidad y democratización de la información: abrir la posibilidad para que todos los profesionales e instituciones patrimoniales –sin importar su poder económico o peso político- puedan tener libre acceso a información y capacitación” es en suma, el principio que rige la oferta de capacitación de ILAM, apuntando a ayudar a las instituciones museológicas a convertirse en verdaderos agentes de cambio en sus respectivos medios.

Lo anterior no puede hacerse de otro modo que obligando a los funcionarios de los museos a cuestionarse una serie de normas y prácticas que se asumen como pétreas –cuando no lo son- y a poner en tela de juicio formas “herrumbradas” de hacer las cosas que ante la pregunta de por qué se hacen de ese determinado modo, no hay más respuesta que “porque siempre se ha hecho así”.

Contact:

Fundación ILAM
Instituto Latinoamericano de Museos
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E-mail: info@talleresilam.org
Sitio Web: www.ilam.org

Actuellement, les institutions culturelles d'Amérique Latine sont confrontées à un environnement structurel nouveau tant institutionnel que politico-économique, qui affecte ce qu'étaient traditionnellement l'étude, la préservation et l'accès au patrimoine culturel et environnemental. Cela se traduit d'abord par la nécessité de renforcer les notions théoriques et pratiques de base et d'acquérir des savoirs jugés jusqu'à présent « éloignés » de la pratique muséale quotidienne.

Cependant, peu d'institutions ont les moyens d'offrir à leurs employés une formation adéquate. Ainsi l'Institut Latino-américain des Musées (ILAM) a-t-il créé une offre en espagnol appelée « Talleres-ILAM », afin de fournir des cours sur place ou en ligne (via la plateforme Moodle), fondés sur des cas pratiques et adaptés à la réalité latino-américaine.

Les thèmes abordés sont :

- Muséologie
- Communication
- Préservation
- Administration
- Catalogage
- Volontariat
- Tourisme

De 2003 à 2009, le personnel de 321 institutions d'Amérique Latine, des Caraïbes et d'Espagne a suivi une ou plusieurs des formations proposées par l'ILAM. Le développement des nouvelles technologies de l'information et de la communication a sans aucun doute permis de rendre la formation accessible à un public plus large. La possibilité d'échanger avec des professionnels de tout le continent au sujet des bonnes pratiques à respecter, des problèmes rencontrés et des solutions proposées, est sans conteste l'un des avantages appréciés par les participants. Le libre accès à l'information et à la formation est un des piliers qui sous-tendent l'offre de formation de l'Institut Latino-américain des Musées.

Currently, cultural heritage institutions of Latin America are facing a new structural, political and economical environment that affects the traditional way of studying, preserving and accessing to the natural and cultural heritage. It is now necessary to strengthen the basic theoretical and practical notions and to gain a new knowledge which has been considered until now far enough from the daily museum practices.

However, as few institutions are able to provide their staff with adequate training, the Latino-American Institute for Museums (ILAM) has created a training programme in Spanish untitled "Talleres-ILAM" proposing face-to-face or on-line (via Moodle) courses relying on practical cases adapted to the Latino-American situation on the following topics:

- Museology
- Communication
- Preservation
- Administration
- Cataloguing
- Voluntary work management
- Tourism

From 2003 up to 2009, staff from 321 institutions of Latin America, Caribbean Islands and Spain followed one or several ILAM training courses. Obviously, the development of new technologies of information and communication has given people a broader access to this programme. Exchanging with professionals from the whole Latino-American continent about the good practices, the main issues and their possible solutions is really appreciated by the participants. The ILAM training programme relies on the principle of free access to information and training.

Publications

Just published:

Archives Damage Atlas, a tool for assessing damage, Metamorfoze, The Hague, 2010

Following the link :

<http://www.nationaalarchief.nl/images/Archives%20Damage%20Atlas.pdf>

You will find the very interesting *Archives Damage Atlas, a tool for assessing damage*, published by Metamorfoze, the Netherlands' National Programme for the Preservation of Paper. The purpose of the programme, a collaborative effort of the Koninklijke Bibliotheek and the Nationaal Archief, is to engage in the struggle against acidification and other forms of intrinsic paper decay.

"Some archival documents deteriorate due to accelerated intrinsic decay, which is degradation that is inherent in the material itself, such as acidification, ink corrosion or copper corrosion, even if they are not being accessed. The *Archives Damage Atlas* is a tool that can be used to recognise and classify damage to archival documents in order to establish the level of accessibility. The atlas should also provide more insight into the types and causes of damage."

Compiled by Peter van der Most, Peter Defize and John Havermans, edited by Erik van der Doe, this very illustrated and useful document is published online and in a paper version.

Obviously it could be very useful to translate it in many other languages! We launch a call for translations.

ISBN 978-90-811592-3-4

Events and Training

Announcements

Reminder: IFLA 2010 Satellite Meeting, "New techniques for old documents - Scientific examination methods in the service of preservation and book history", 17-19 August 2010, Uppsala, Sweden

Organizers: IFLA Preservation and Conservation Section and The Rare Books

Further information at:
www.ifla.org/en/calls-for-papers/2046

Contact:

Per Cullhed or Raphaelle Mouren
Per.Cullhed@ub.uu.se or Raphaelle.Mouren@enssib.fr

7th International Conference on Preservation of Digital Objects (IPRES 2010), 19-24 September 2010, Vienna, Austria

The Austrian National Library and the Technical University of Vienna are pleased to host the International Conference on Preservation of Digital Objects (iPRES 2010) in Vienna in September 2010. iPRES 2010 will be the seventh in the series of annual international conferences that bring together researchers and practitioners from around the world to explore the latest trends, innovations, and practices in preserving our digital heritage.

Digital Preservation and Curation is evolving from a niche activity to an established practice and research field that involves various disciplines and communities. iPRES 2010 will re-emphasise that preserving our scientific and cultural digital heritage requires integration of activities and research across institutional and disciplinary boundaries to adequately address the challenges in digital preservation. iPRES 2010 will further strengthen the link between digital preservation research and practitioners in memory institutions and scientific data centres.

Further information at:
www.ifs.tuwien.ac.at/dp/ipres2010

Contact:
ipres2010@ifs.tuwien.ac.at

30th IPH Congress of International Paper Historians, 23-27 September 2010, Angoulême, France

Theme: Session 1: Side-industries and crafts connected to Papermaking ; Session 2: Paper Economy and Trade: national and international interactions ; Session 3: The Uses of Paper: Gestures, Words, Expertise.

Organizers: AFHEPP (Association Française pour l'Histoire et l'Étude des Papiers et des Papeteries)

Contact:

Denis Peaucelle
denis.peaucelle@afhepp.org
Musée du Papier IPH Congress
134 rue de Bordeaux
Angoulême 16000
FRANCE

IADA Course on Conservation of Tracing Paper, 14-15 October 2010, Berlin, Germany

This workshop is an introduction to manufacture processes of transparent paper and their influence on the dimensional stability of these papers as well as the demonstration and discussion of various treatment techniques. The main focus of the seminar is to gain an understanding of the several treatment techniques through hands-on working on originals and dummies.

Fees:
240,00 € for IADA Members
285,00 € for Non Members

Registration and Contact:
Hildegard Homburge
Krefelder Str.17
Berlin 10555
Germany
Tel./Fax +49-30-3912503
hombu@freenet.de

"Parchment and Leather: Research, Conservation-restoration, Craft", 21-23 October 2010, Torun, Poland

The conference, organized by Nicolaus Copernicus University, will be divided into five sessions devoted to broad views of research problems and questions regarding conservation of historic parchment and leather artefacts.

Please find the sessions topics at:
www.zkpis.umk.pl/?wersja-angielska,145

Registration fees: 100 €
Conference languages: Polish and English

Contact:
Dr Halina Rosa zkpis@umk.pl
Dr Tomasz Koziellec tk@umk.pl

International Association of Sound and Audiovisual Archives (IASA) Conference : "Together for a sound vision", 02-06 November 2010, Philadelphia, USA

In 2010, IASA and the Association of Moving Image Archivists (AMIA) will come together for the first time in a joint conference. The IASA/AMIA Conference will provide an opportunity for colleagues and those interested in all aspects of the field to meet, share information and discover mutual solutions.

Papers, panels and posters will cover all issues to do with sound and audiovisual archives, but especially on the following sub-themes:

- Archives, Libraries and Museums. Does convergence work?
- Challenges of Multimedia in archives (Convergence or multiplication of formats)
- The user and the archivist (Convergence of roles)
- Social networks (Converging to where the user is)
- One nation, one world catalogue (Convergence of access)
- Turning archives into assets
- **Collection preservation and workflows, (Convergence of practice?)**
- Open Access and Standards (Convergence in modus operandi)
- Organisations and associations (Convergence of colleagues)
- Rights in a converging world

Registration information will be added later. Please consult the conference website:
www.iasa-conference.com

Contact:
enquiries@iasa-conference.com

EuroMed2010 Dedicated to Digital Cultural Heritage and Digital Libraries, 08-13 November 2010, Limassol, Cyprus

A joint event for the exchange and sharing of know-how in the areas of Cultural Heritage (CH) and Information & Communication Technology (ICT) focusing on Digitalisation and Multimedia Technologies, Computer Graphics and in general in the digital documentation/preservation in Cultural Heritage (Multilingua, Multimedia Digital Libraries and Aggregators).

The event will provide an opportunity to exchange opinions, experiences and proposals on the best practice and tools to document, preserve and manage the Cultural Heritage (CH), whether books, drawings, architectural, archaeological and/or natural. The main goal of the event is to illustrate the programs underway, whether organised by public bodies (e.g. UNESCO, European Union, National States, etc.) or by private foundations (e.g. Getty Foundation, World Heritage Foundation, etc.) in order to promote a common approach to the tasks of recording, documenting, protecting and managing the World Cultural Heritage. To reach this ambitious goal the topics covered will include experiences in the use of innovative recording technologies & methods and how to take best advantage of the results obtained to build up new instruments and improved methodologies for documenting and managing the Cultural Heritage.

Early registration: September 10th, 2010
Registration fees: 170 € for one-day participation
Further information at :
www.euromed2010.eu

Contact:
Conference Chair: Marinos Ioannides
chairman@euromed2010.eu

6th AICCM Book, Paper and Photographs Symposium, 17-19 November 2010, Melbourne, Australia

The next AICCM Book, Paper and Photographs Symposium will be held at the National Gallery of Victoria, Melbourne, from 17-19th November 2010. It will focus on the conservation of paper, books and photographs in general.

Contact:
Belinda Gourley
AICCM Book and Paper SIG Convenor
belinda.gourley@ngv.vic.gov.au
<http://www.aiccm.org.au>

HERITY Conference 2010: "Observing Cultural Heritage, Evaluating the state of conservation and communicating it to the public", 04-06 December 2010, Roma, Italy

This is the third international conference organized by HERITY. Conferences follow the order of the four sectors of the HERITY "target", used to score the level of quality management reached at a place with regard to: Value, Conservation, Communication and Services.

The conference, launched by Gaël de Guichen, as the Deputy President of HERITY International, will take in account Museums, Monuments, Libraries, Archives and Archaeological sites open to the public and under control. During the last 30 years several instruments to evaluate the state of conservation of the Cultural Heritage were individuated; the Conference is aimed to get a look to these methods and discuss two issues:

- 1) tools developed by specialists for evaluation of the state of conservation of the places mentioned above, which results can be compared over time with coherence independently from their type, location or historical period they belong to;
- 2) tools for visitors to be aware and informed about the state of conservation of the places they visit in order to make possible their involvement in better practices for preventive conservation.

The Conference is aimed at managers of Heritage sites open to the public, managing companies, specialists in conservation, politicians and public administrators, tourism professionals and guides, educational services of cultural sites, students and professors from schools and universities and, of course, visitors of Cultural Heritage sites.

Please consult the conference website:
<http://www.herity.it/HERITY2010.htm>

Registration information:
You can find and complete the registration form on the conference website and pay the participation fees by November 30, 2010, as follows:

220.00 €, until October 31, 2010
350.00 €, from November 1 till November 30, 2010

Contact:
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c/o DRI, V. E. Filiberto 17
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info@herity.it

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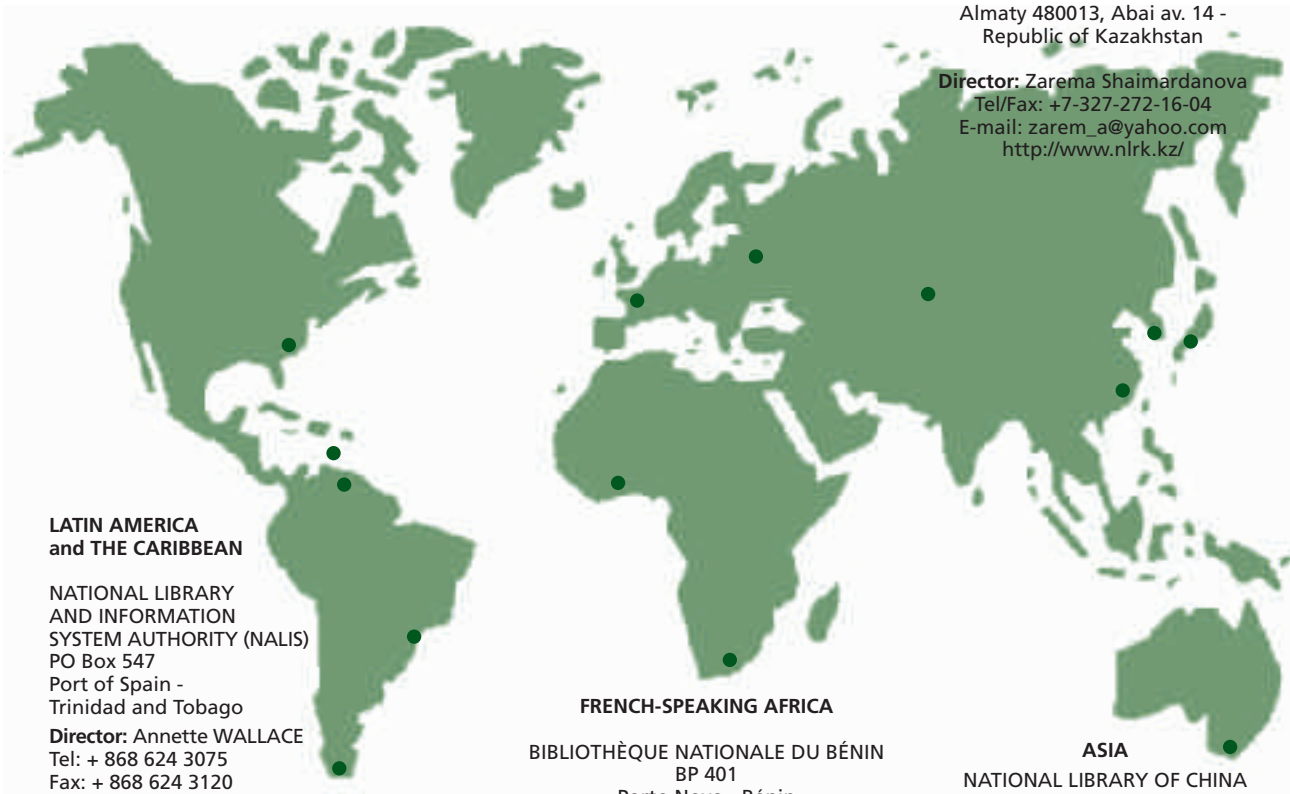
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www.bnv.bib.ve/

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