

The Social Web: Opportunities, Barriers and Solutions for Cultural Heritage Institutions

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Summary

This report summarised the opportunities provided by the Social Web for cultural heritage organisations, describes barriers which have been encountered in exploiting this potential and describes possible approaches to addressing these barriers.

Executive Summary

This report looks at the opportunities, barriers and solutions to using the Social Web for cultural heritage institutions in the United Kingdom, and especially in England and Wales.

It considers briefly the historical background of the use of information and communications technology by cultural heritage institutions in the UK, and why it is important to consider how they can use the Social Web.

The report explains briefly the difference between the first phase of providing cultural heritage Web resources, when organisations created content and published it within a fairly static web site, and this second phase, the Social Web, which focuses on dialogue and interaction facilities.

It connects the broader current debate about enabling people to engage with public services to the existing communication skills of people working in cultural heritage.

The section on opportunities looks at various ways in which the Social Web is being used and could be used. It includes examples of how it can be used to provide or improve:

- Access
- Advocacy and campaigning
- Continuing professional development and peer-to-peer support
- Education and outreach
- Fundraising, sponsorship
- Marketing and promotion

The barriers section looks at what people consider blocks their use of the Social Web and concludes that fear of change is probably the greatest barrier. The strong lead from central Government is likely to accelerate change at local authority level, freeing the cultural heritage institutions under their aegis to use Social Web tools more.

The solutions include using examples of organisations that have implemented use of the Social Web already and using advice provided on UKOLN's Web site. The case studies have informed the development of a risks and opportunities framework and an accompanying risk assessment and management toolkit which are described in the report.

The report concludes that there remains a need for practical workshops to build confidence in the sector. Strong leadership on these Web issues is also required within cultural heritage, and there needs to be more collaboration with organisations also endeavouring to increase digital participation.

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About This Report

This report was commissioned by the MLA. The work was coordinated by UKOLN. The main author was Janet E Davis. Additional content and editing work was carried out by Brian Kelly, UKOLN.

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1 Introduction

Cultural heritage institutions in the United Kingdom have come a long way in using computers and the Web in their everyday work during the last decade.

In 2000, digital resources were still scant even within the institutions. Many public libraries' staff were unable or unused to using e-mail, word-processing or basic spreadsheets on computers, although they were used to using the electronic catalogue system at least for lending library stock by then. Pioneering museums were creating electronic catalogues and picture libraries by 2000, but most of the staff still used card indexes to find objects. Many of the public record offices were starting to think about whether they should have computerised records and encourage the public to use their archives.

Many cultural heritage institutions had minimal web sites that gave opening hours, information about admission charges, and possibly a small (often hand-drawn) map showing their location. Some did not have even that much. Most staff in most institutions had, at best, shared access to a desktop computer, which often had only outdated software.

Between 2000 and 2009, the Lottery provided funding for large cultural heritage digital projects through the Heritage Lottery Fund and, from 2001 to 2005, through the New Opportunity Fund's ground-breaking Digitise programme. The People's Network, also established during this period, provided access to computers linked to the Internet in public libraries throughout England, and trained libraries staff to provide people with help in using the computers.

These national initiatives were essential for establishing a basic digital infrastructure within cultural institutions. The digital landscape is developing rapidly, however, and technologies that were beginning to emerge as the NOF Digitise projects started are now available, often free, for anyone to use online.

Within the last decade, use of the Web has increased very rapidly. The first phase of the Web was about cultural Institutions publishing some information and educational resources online. The second phase opens up opportunities to use and share content effectively, and to engage in dialogue with people.

This report seeks to summarise various barriers which have been identified in exploiting the potential of the Social We based on issues which have been raised at a series of Web 2.0 workshops which were organised by UKOLN for staff working in museums, libraries and archives.

The main author of the report, Janet E Davis, has worked in or with all domains within public cultural heritage over the past 25 years. She has been at the forefront of introducing information technology into heritage work. During the past decade she has focused principally on the creation of heritage web sites; developing and embedding appropriate standards for online heritage information, and in increasing access to heritage collections through online accessibility.

The research for this report was mainly desk-based, using evidence from sources such as online discussions about issues relating to the use of Social Web tools by cultural heritage institutions; discussion during UKOLN's Introduction to Web 2.0 and the Social Web workshops. The author also attended two of the workshops (Newcastle and Birmingham); attended and coled a session on libraries' use of the Social Web at the London LocalGovCamp (4th March 2010); interviewed or discussed the issues of using the Social Web in cultural heritage with various people in the sector, and with people involved with digital strategy in local authorities, including a local councillor, Web software developers, local authority communications team staff and people in council IT/Web teams.

2 Background

Web 2.0' is a phrase first used by Tim O'Reilly around spring 2004 and its definition is still being discussed. Some have considered it to be simply a meaningless buzzword, promoted by marketing people. Essentially, Web 2.0 is about attitudes, and a set of technologies that enable participation by all. Tim O'Reilly stated that they regarded it as describing what came after the dotcom bubble burst. Web 1.0 was about using the Web as a publishing medium; Web 2.0 is about participation and self-publishing.

The 'Social Web' can be used to mean different things, but is currently used almost interchangeably with Web 2.0. The Social Web is more specifically the focus on social networking and community participation online.

The technologies can include:

- Web content management systems (Web CMS) that provide easy ways for people to create web sites without requiring technical knowledge, for example, Google Sites, Wordpress;
- Blogs that provide time-dated and ordered entries that can include text, images, embedded audio or video files, for example, Blogger, Posterous.
- Social networking sites such as Facebook, MySpace, Bebo;
- Micro-blogging sites, such as Twitter.
- Social bookmarking that enables people to share links to web pages, for example Digg, Delicious.
- Images and video sharing, for example, YouTube (audio and video), Flickr, Picasa
- Map-based services, such as Google Maps, which enable sharing of geo-tagged images, links, files.

Cultural heritage organisations, along with all national and local government bodies, have to move forward to providing services for a public that is no longer passively consuming information. Those who use the Web are no longer accessing it primarily from a desktop computer but via devices such as mobile phones, laptop computers.

They can provide an attractive and useful entry point for people to interact with public services. The People's Network computers in libraries proved that providing access to equipment and basic training in an everyday, non-threatening environment works.

The idea of interacting online has become mainstream in the UK, but the practice needs further development in public services. The first phase of providing public services on the Web was simply about establishing a web presence, working out how to publish information in technically-accessible ways. This second phase is important because it enables dialogue and 'grass-roots' involvement; the development of communities that may or may not be based on one's geographical location.

Cultural heritage is a significant element of the UK's public services online. It is not just a small part of national and local educational resources for all ages, but also an important part of the UK economy. According to *Investing in success: Heritage and the UK tourism economy*, March 2010 http://www.hlf.org.uk/news/Pages/InvestinginSuccess.aspx, commissioned by the Heritage Lottery Fund, heritage tourism is estimated to contribute £20.6 billion to the UK's GDP (Gross Domestic Product). Public cultural heritage online can be seen as providing 'raw material' for this industry, promoting the UK and training people. Culture is also the social 'glue' that keeps society functioning.

3 The Opportunities

A vivid reminder of one of the unexpected opportunities presented by the social web appeared just after the V&A (Victoria and Albert Museum) in London held the private view for 'Quilts,' a major exhibition of quilting. They repeated (retweeted) messages from two high profile guests to the exhibition's opening: designer and television presenter, Kirstie Allsopp and Sarah Brown, wife of the Prime Minister.

Traditional media would be less likely to provide such fast and direct feedback on an exhibition from such visitors. People on Twitter following museums, or celebrities such as Sarah Brown, certainly include journalists who work in traditional media. The Social Web can provide a channel for promoting or a means of reaching the mainstream channels to promote services or events.



Screenshot of the V&A Museum's Twitter page (reproduced by permission of the V&A Museum).

The most obvious way for cultural heritage organisations to use the Social Web is for promoting, and providing updates about, events. Some organisations are taking the cautious approach of simply using online channels such as Facebook and Twitter as virtual notice-boards on which they can post information about forthcoming events. This can be useful, especially where it is provided as a news feed that can be added easily by someone else to a web site or blog.

The Social Web comes into its own, however, for other, more engaging ways of connecting with individuals and groups. These can be grouped broadly under the following headings:

- Access
- Advocacy and campaigning
- Continuing professional development and peer-to-peer support
- Education and outreach
- Fundraising, sponsorship
- Marketing and promotion

Some cultural heritage organisations are trying ways of using Social Media for a few of these purposes, and a few are trying most.

3.1 Access

Online resources can provide additional or enhanced access to collections:

- To objects which cannot normally be displayed due to lack of physical space or conservation requirements;
- Through highlighting one object and encouraging viewing of similar objects (such as the Black Country Museums do on Twitter as @BCMuseums);
- for people who cannot visit them because they are unable to, or can rarely, afford to travel to the physical site;
- For people who are housebound or find it difficult to visit the physical collection. Haringey Library found that there was a demand for an online book club for housebound readers. Newcastle Libraries are considering widening their online provision to offer e-books.
- Geo-tagged material and free online mapping services open up access to much environmental heritage in new ways.

3.2 Advocacy and Campaigning

Some Friends organisations have been quick to see the potential of the Social Web for campaigning for the organisation or site that they support.

The Save Our Collection Group on Facebook was set to fight against Southampton City Council's decision to sell some of the Southampton City Art Gallery's collection. They gained support from national organisation and individual, and has resulted (at the time of writing) in the postponement of any sale and the Council looking at other option for raising money.

Museums in the West Midlands are currently campaigning for support to purchase and keep in the West Midlands the extraordinary Anglo-Saxon Staffordshire Hoard. This collection has been an enormously popular exhibit in the West Midlands and at the British Museum in London. Birmingham Museums and Art Gallery has been particularly active in using Facebook, Twitter and Flickr to remind people about the Staffordshire Hoard and the need to raise money to purchase it for permanent public display. Social Web applications that allow people to comment are ideal for these kind of activities. They enable supporters to feel actively involved (they can set up and run online support groups that link in to the official ones), to show their support publicly, and help to gather evidence of grass-roots support.

3.3 Continuing Professional Development and Peer-to-peer Support

These can come in the form of providing formal training online or informal support.

The UK museums' E-learning Group, primarily visible previously as a JISC mail list for discussing digital learning resources, re-launched in early 2010 as the Digital Learning Network. It now uses Twitter as well as JISCMail, and has a wiki-type network Web resource [http://digitallearningnetwork.net/) where members can set up their own pages and regional groups. This new Web resource can also provide embedded videos.

An increasing number of training materials on all kinds of skills (not specific to but used by people who work within cultural heritage institutions) are freely available on the Web on sites such as YouTube, or iTunes.

Many cultural heritage professionals blog and write about conferences, latest issues, policies or share ideas and resources that they have found.

One of the key resources for help and support regarding digitisation and Web resources (and the relevant standards) for the public cultural heritage sector is, of course, the UKOLN web site http://www.ukoln.ac.uk/cultural-heritage/, especially the UKOLN Cultural Heritage web site http://www.ukoln.ac.uk/cultural-heritage/, especially the UKOLN Cultural Heritage web site http://www.ukoln.ac.uk/cultural-heritage/, especially the UKOLN Cultural Heritage web site http://www.ukoln.ac.uk/cultural-heritage/. UKOLN provides practical support materials that relate to their workshops, including advice on how to put together the case for a cultural institution to use the Social Web.

Allowing staff to access such sites and to join networks or groups can provide great benefits at little or no cost. It is not unusual for people to ask for help with practical problems on Twitter, especially computer or software issues. There is usually someone around who can answer the question or knows someone else in their network who can, saving a lot of time in solving the problem.

It is particularly valuable for small organisations that could only allow staff to spend a day on a training course or at a workshop by shutting the place to the public for a day. These professionals can get support, new ideas, and help through using the Social Web.

3.4 Education and Outreach

The Social Web is not being used to its full potential for education and outreach activities yet. It can provide material for both formal and informal learning for all age groups and abilities. It is increasingly providing better technologies for providing more accessible learning materials that are easier to download or use.

3.4.1 Video and Sound Online

Eight years ago, it was a major and costly undertaking for a library or archive to provide audio files embedded on its web site. Now, such files can be uploaded to an online service or made available via a widget embedded in a web page that will work with most common browsers.

The Tate has put an excellent series of talks and videos about modern art and artists on iTunes U, including artists explaining their work. It is fortunate to have such resources to produce high quality resources. The relative low cost of small camcorders, and basic free or low cost audio and video editing software, enable even small museums or archives to upload interesting talks or interviews. It is the type of activity for which volunteers may be well-equipped to help.

3.4.2 Social Networks

Social networks such as Bebo and Facebook are used increasingly by teenagers, a notoriously hard-to-reach audience for cultural heritage. Organisations have a better chance of reaching them if they have a presence on such sites and can convey a lively personality. Providing images, videoes, audio files, free things, competitions (even without prizes) and seeking views on specific objects, events or issues all help to engage these audiences.

3.4.3 Blogs

Blogs can be a more dynamic way of providing interesting educational material than formal learning resources on a main web site. They are a good medium for writing short pieces about specific objects; or about the work of an individual in the organisation (a behind-the-scenes look at the work to help people understand what is involved); or about a specific project.

The Museum of London provides good examples of both the work of individuals and on a specific project:

http://www.museumoflondon.org.uk/English/Online/Museum-of-London-blogs.htm>.

Newcastle Libraries' Blog provides short pieces about writers, new books, events, or other items that relate to the libraries (such as a blog post for International Women's Day that was inspired by a photograph in their collection):

<http://community.newcastle.gov.uk/libraries/>.

The blog format lends itself well to a journal or diary type of account, such as Renaissance East Midlands' project, My Life As An Object; or the account of an archaeological excavation. Community archaeology projects often use a blog to share information about a specific project. Current online blogging software is easy to use and can provide an easy and attractive medium for volunteers as well as staff to use. Some can



Screenshot of a blog entry written to celebrate International Women's Day, 2010. The author has re-used an image, with permission, from Newcastle Libraries' Flickr site.

even be set up to work easily with mobile and especially 'smart' phones, which could provide an attractive option for those engaged in outdoor investigations of historic sites.

3.4.4 Micro-blogs

Micro-blogging offers some interesting possibilities for imaginative presentation of educational material. Few institutions are using it in this way yet.

Many museums and some libraries are using services such as Twitter to provide brief information and reminders about educational events (often with a link to the relevant page on their web site which has more information).

The Museum of English Rural Life, Reading (@MERLReading <http://twitter.com/merlreadin g>) achieves a conversational tone when informing of educational events, and highlights new acquisitions on Twitter. The Black Country Museums (@BCMuseums <http://twitter.com/BCMuseum s>) highlights objects in their collections by providing a link to an image and brief text.



Screenshot of the West Yorkshire Archives Service's Twitter page showing thoughtful use of both wallpaper (the background image), showing an old map of the county and a simple, modern geographical logo as the avatar (the small image next to the name 'wyorksarchives').

The Natural History Museum started a new Twitter account for their identification service (@NHM_id) which provides links to a relevant page about a species (with images) on their web site. It can be a serendipitous experience, with some revolting and some gorgeous creatures. The Natural History Museum also has a Twitter account for its most iconic exhibit – Dippy (@NHM_Dippy), the unmissable, large dinosaur on the ground floor of the museum. Dippy answers queries and makes reference to what going on around it.

The Raleigh Chopper was a week-long Twitter account for the My Life As An Object project - http://twitter.com/yellowchopper and gives an inspiring example of how micro-blogging could be used. The life of the bicycle was imagined and reported during the week. It also responded to comments and questions addressed to it.

There are other, non-institutional Twitter accounts that give some idea of how something like Twitter could be used for entertaining and educational resources. These are the buildings, bridges, musical instruments, the odd stone, animals, dead and fictitious people who tweet. Some take on the persona and 'act' the character very consistently. These can be an entertaining and engaging way to convey serious information.

They can also attract the attention of people who would not normally think of looking for historical information. They can encourage people to take notice of the historic environment around them and to foster their curiosity about it.

3.4.5 Image Sharing Sites

The various image sharing sites have increased the ways in which people can display and interact with image content during the past year. Features such as enabling the creation of online galleries, and viewers adding their own tags (descriptive metadata) to images uploaded by others make this an attractive platform for organisation's images.

The sites encourage different methods of discovery (owners being able to add images to themed groups, others being able to show images they do not own in their own themed gallery, together with their own text). Such sites also encourage offering suitable images for reuse by others under a Creative Commons licence rather than the highly-restrictive normal copyright.

Increasingly, museums and galleries in particular are using such sites, uploading images from their collections, and encouraging people to add their own comments or additional information.

They are also setting up groups, often in association with a specific event or exhibition, and inviting people to add their own



Screenshot showing a page on Newcastle Libraries' Flickr photostream. Note that a cropped version of this photograph appears on the example of a blog.

images to the group. In some instances, they are then asking permission to use those images in a projected slideshow within an exhibition in the real like museum or gallery. Examples of these kinds of uses can be found on Flickr:

Documenting Contemporary London Group

See <http://www.flickr.com/groups/documentingcontemporarylondon/>.

This group was set up by the Royal Academy of Arts to complement their exhibition of historical photographs of London, 'Relics of old London: Photography and the spirit of the city' http://www.royalacademy.org.uk/exhibitions/architecture-on-the-ramp/

Museums at Night 2009 group

See <http://www.flickr.com/groups/museumsatnight09/>.

Set up by Culture 24, this group encouraged people to participate in and attend the late night openings of British museums and galleries in May 2009. They encouraged people to add images to the group by running it as a competition. There is a new group for the same event in May 2010.

3.4.6 Wikis

The best known of the wikis is Wikipedia, but there are many others online, and a number of free-to-use services online for people to set up their own wiki sites. Wikis are web sites that enable quick and easy creation of web pages that can be linked together. Wikis are especially useful for collaborative or community web sites with multiple authors.

It is a type of facility that could be exploited far more by cultural heritage institutions.

3.5 Fundraising, and Sponsorship

Supporters of Bletchley Park have been lively and vociferous on the Social Web. They have increased the number of supporters, and have recently raised money to sponsor Dr Sue Black to go to the Museums on the Web conference in Denver in April 2010 to raise awareness of and gain more support for Bletchley Park. They have also been able to gather support by communicating publicly on Twitter with Stephen Fry, one of their most famous supporters. He has shared online his own photos of a visit to Bletchley.

The Social Web provides greater possibilities for reaching potential sponsors, advocates and donors. It is possible to have conversations with people one might not meet or may not recognise in real life. It is not unusual to be able to chat with interesting people who happen also to be wealthy, have political influence, or useful connections.

If an institution is prepared to have conversations with people online, they could easily find (as some have already) that there are people with sufficient resources or abilities to give them very valuable practical support. It does require some subtlety, however, and standard advice about building up meaningful relationships with supporters is still applicable.

3.6 Marketing and Promotion

Although the Social Web should not (yet) be the only medium used, it is a very good one for the marketing or promotion of cultural heritage institutions. It can be very cheap to have a presence online, and it has the advantage over most advertising media of being inherently international. Used with imagination, it could promote an event or a place more widely than any other single traditional channel. Interesting news can also spread more rapidly via the Social Web than any other channel.

The content that is used for educational purposes online is also excellent for providing engaging content for marketing and promoting museums, libraries, archives, or historic sites.

The tweeting bridges and buildings in London became very competitive at one time. *The Telegraph* newspaper even published an article about them: 'London's bridges in war of words on Twitter,' 11th September 2009 – see:

http://www.telegraph.co.uk/technology/twitter/6174606/Londons-bridges-in-war-of-words-on-Twitter.html

3.7 Changing Expectations

The importance of the Social Web to the future of Britain, and the urgent need for public organisations to implement it was emphasised in the speech given by the Prime Minister, Gordon Brown, on Monday 22nd March, 2010. He also emphasised the needs for digital standards, something that public culture web sites have been working hard already to achieve during the last decade.

Nick Poole, Chief Executive Officer of the Collections Trust, welcomed and identified the significance for cultural heritage in the Prime Minister's speech:

"Building Britain's Digital Future is significant for two reasons. The first is that is demonstrates that the Government has learnt from the last 10 years of investment in Digital programmes and is thinking much more strategically about next-generation services.

"The second is that it puts Digital at centre-stage in the Election. Whichever party is in power in 4 months time, we know that making Britain a stronger, faster, more digitally-capable country is a key agenda for both of them.

"Museums, archives and libraries have a key role to play, both in providing people with access to the web and in giving them a reason to get online. Unfortunately, we sometime struggle to come to terms with the implications of the new Digital environment, particularly where it challenges our traditional practices. I believe that Building Britain's Digital Future gives us the impetus we need to push for a more open, collaborative future for the sector."

4 Understanding the Barriers

4.1 Gaining Evidence

Public organisations started using Web 2.0 technologies before the term was created. For example, Gateshead Libraries set up a blog around 2002 for their FARNE (Folk Archive Resource North East) project so that they could share information about their work whilst the database and main web site were being built. The barriers facing many organisations suggest that the concept of using such Social Web applications still seems very new to many people.

The feedback from the UKOLN 'Introduction to Web 2.0' workshops, discussions on mail lists, Twitter and at conferences indicates that there is still a gap between theory and practice in using the Social Web.

The main barriers reported are:

Technological:

- Lack of computers;
- Lack of Internet connection (or lack of bandwidth);
- Outdated software, especially continued use of Internet Explorer 6 (despite it having been declared insecure and therefore unsafe to use by the French and German Governments);
- Institution-wide blocks on Social Web sites by either the institution or the responsible local authority;

Skills:

- Lack of experience in using Social Web applications;
- o Lack of knowledge of how to write or otherwise create content;

Cultural:

- Management that only allows specified staff, such as marketing officers, write or approve any 'corporate communications;'
- Management that does not permit anything to be published on the Web without vetting by senior manager or local authority councillors.

During UKOLN's Introduction to Web 2.0 workshops, participants have tended to want to spend discussion time talking mainly about why they cannot use the Social Web. This is probably in part a reaction to being amongst people who will empathise with them about the frustration of not being able to use the technology, and the attitudes of those apparently blocking change. There is undoubtedly benefit in being able to express those feelings in a safe environment where others will be sympathetic.

It is important to consider that the responses in such workshops to 'what are the barriers' do reflect the participants' roles in their institutions. They see the barriers as being primarily within the IT department, or senior management.

Further discussion in other contexts with individuals, including a councillor in Oxfordshire, Communications Officers or Managers working in various English local authorities, and local authority web team members show that there is less of a typical pattern to where the barriers are. In some, the barrier is at the higher levels, and seems to be based on a lack of practical knowledge of the Social Web and a fear of delegating responsibility. In others, the barrier is staff lower in the hierarchy, often in public-facing roles, who might have less time and access to a computer to become familiar with web-based applications.

We were fortunate to have a more mixed group at the session on the Social Web and libraries led by Anke Holst, Diana Edmonds (Assistant Director of Haringey Libraries, Culture & Learning), and me during the LocalGovCamp London (an unconference) held in London on 4th March, 2010. Members of a web team in a local authority explained how they wanted to enable their libraries and culture people use the Social Web, but found that those staff did not want to learn. The staff overtly saw it as an unnecessary extra burden on already heavy workloads. It is likely that they do not yet perceive the benefits of the Social Web in their work because they are not comfortable enough with trying new technology themselves.

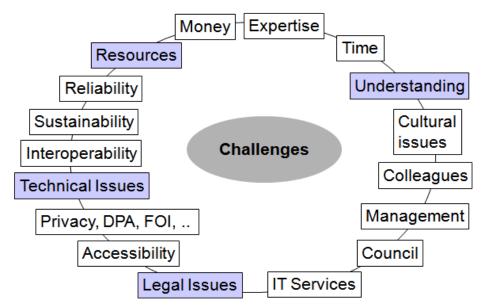
There are further barriers for schools that go beyond the scope of this report but are important issues and can affect cultural heritage institutions and how they provide access to their

resources. Policy varies between local education authorities as to what web sites are blocked. Many block Social Web sites and applications such as YouTube and Facebook. For example, even teachers cannot access YouTube to show classes at schools in County Durham (at the time of writing).

Teachers and other education professionals are raising the question of whether it would protect young people better if they could use Social Web sites in the classroom and learn how to avoid danger. Some staff can get access to generally banned web sites if necessary for their work, but it can be difficult and take a while to gain access. Some are beginning to cease blocking sites so comprehensively.

4.2 Summarizing the Evidence

A summary of perceptions of barriers to use of Social Web services, based on the feedback from a range of UKOLN events, is illustrated below.



A summary of perceptions of barriers to use of Social Web services

These barriers have been classified into the following areas:

Need for better understanding

There is a recognition that there are needs for better understanding of the relevance of use of the Social Web within cultural heritage organisations, the limitations and risks which such use might entail, as well as more specific understanding of how to use Social Web services.

Legal and Related Issues

A variety of legal, copyright and related risks are always raised in the context of discussions related to use of the Social Web.

Technical Issues

There are a variety of technical concerns, including the interoperability of such services, the reliability of third party services and the long-term sustainability of the services.

Resourcing Issues

There are also the inevitable issues of how deployment and sue of such services will be resourced.

5 Addressing the Barriers

5.1 Background

Talking to those who had already started to use the Social Web in a work context by March 2010, it is clear that most started by taking a decision to try it without seeking formal permission. The phrase 'seek forgiveness, not permission' has been used to summarise this approach.

Many start by setting up accounts under their own names (or pseudonyms) and using Social Web facilities to connect with and gain advice from colleagues in other institutions. One curator announced that she would have to stop tweeting during the day because her manager considered it a waste of time, although she had found it very useful for quick advice from other museum professionals. She could also see the benefits for her institution of using Social Web facilities for educational use, and to publicise their activities to a different audience. She continues to use Twitter in her own time to connect with colleagues elsewhere. Her story is not uncommon.

The communities of culture sector professionals and volunteers using the Social Web build on virtual communities that have developed (to a lesser degree in many cases) through the more traditional online forums such as the MCG (Museums Computer Group), LIS (Libraries and Information Services) and FISH (Forum for Information Standards in Heritage) mailing lists.

The UKOLN's *Introduction to Web 2.0 and the Social Web* workshops, sponsored by the Museums, Libraries and Archives Council, provide some good examples of how people have started use of these technologies by their institution. There is no single, magic solution to making the barriers disappear but sometimes they vanish unexpectedly.

One council suddenly decided at the beginning of March that they should allow access to most of the external web sites which they had been blocking. This was on the grounds of cost. Someone had worked out how much it cost to block so much, and how much it cost to let staff have access. They decided it was time to trust staff and their managers.

Fear of risk is sometimes endemic in public services. There is more potential risk in not using such technologies now, however, as professional staff risk their skills becoming outdated rapidly. Cultural heritage institutions under the aegis of local authorities can help that council and geographical area appear modern and dynamic, a good place for businesses to be located.

Improved communications internally between colleagues and externally with residents or visitors improve the quality and efficiency of services whilst reducing the cost of delivering them.

Fear of criticism is also common. At one workshop, a participant told us of how their institution regards any suggestions for improvements in service as formal complaints even using the traditional cards-in-suggestions-box method of feedback. Such an approach seems designed to discourage local authority staff from encouraging feedback from residents.

Most public organisations that have tried giving online facilities for people to comment on services or issues have been pleasantly surprised at the lack of censorship required. It can even encourage people using the services to say what they like about the institutions. Positive feedback is evident in many existing cultural heritage institutions' Facebook and Twitter feeds. Many people are happy to enthuse about things that they have enjoyed.

Trying out one Social Web tool and finding that it does not cause chaos and can improve service delivery is how many cultural institutions started to develop their offer of Facebook, Twitter, blogs, bookmarks and similar. Haringey Libraries decided to promote their Twitter account at the beginning of March 2010 using postcards giving its URL. They felt that it had worked well enough for a while to cope with the extra demand created by promoting the account within the libraries.

Newcastle Libraries, having tried out Flickr, Facebook, Twitter and a blog alongside their traditional web site (which still provides the more static information and access to library catalogues), are already thinking of how they might expand their use of online resources. They

find that the Council's IT team provides good support that enables them to adopt these more agile solutions.

Newcastle Libraries did not have to struggle to establish their Social Web presence since managers could see and understand the need to do it, and the IT team were willing to assist them. Many institutions are not quite so adventurous. UKOLN recommends, if necessary, doing a risk assessment; developing a simple business case; and creating a very concise, lightweight policy of how the Social Web will be used.

UKOLN has produced a practical set of documents advising on planning the creation of and using Social Web resources on their Cultural Heritage web site http://www.ukoln.ac.uk/cultural-heritage/documents/#risk-management>.

5.2 Addressing Risks and Opportunities

UKOLN has produced a practical set of documents advising on planning the creation of and using Social Web resources on their Cultural Heritage web site http://www.ukoln.ac.uk/cultural-heritage/documents/#risk-management. These documents have been informed by a number of peer-reviewed papers which have been presented at international conferences in order to seek validity of the underlying concepts.

The approaches describe a high level framework for understanding both the risks and the opportunities which use of Social Web can provide and a toolkit for documenting specific risks and how such risks might be addressed. The framework has been described in a number of peer-reviewed publications (see *Time To Stop Doing and Start Thinking: A Framework For Exploiting Web 2.0 Services* available at http://www.ukoln.ac.uk/web-focus/papers/mw-2009/sund Empowering Users and Institutions: A Risks and Opportunities Framework for Exploiting the Social Web, available at <a href="http://www.ukoln.ac.uk/web-focus/papers/cultural-heritage-online-2009/sund-baseline-2009/sund-b

This framework is summarised below.

The Need for a Risks and Opportunities Framework for the Social Web

In today's environment of rapid technological innovation and changing user expectations coupled with financial pressures it is no longer possible for cultural heritage organisations to develop networked services without being prepared to take some risks. The challenge is how to assess such risks prior to making policy decision as to whether the organisation is willing to take such risks.

Assessing Risks

Risks should be assessed within the context of use. This context includes the intended purpose of the service, the benefits which the new service is perceived to bring to the various stakeholders and the costs and other resource implications of the deployment and use of the service.

Assessing Missed Opportunities

In addition to assessing the risks of use of a new service there is also a need to assess the risk of not using the new service – the missed opportunity costs. Failing to exploit a Social Web service could result in a loss of a user community or a failure to engage with new potential users. It may be the risks of failing to innovate could be greater than the risks of doing nothing.

Risk Management and Minimisation

It is important to acknowledge that there may be risks associated with the deployment of new services and to understand what those risks might be. As well as assessing the likelihood of the risks occurring and the significance of such risks there will be a need to identify ways in which such risks can be managed and minimised.

It should be noted that risk management approaches might include education, training and staff development as well technical development. It should also be recognised that if may be felt that risks are sometimes worth taking.

The Risks and Opportunities Framework

The risks and opportunities framework aims to facilitate discussions and decision-making when use of Social Web service is being considered.

The components of the framework are:

Intended use: Rather than talking about services in an abstract context (*"shall we have a Facebook page"*) specific details of the intended use should be provided.

Perceived benefits: A summary of the perceived benefits which use of the Social Web service are expected to provide should be documented.

Perceived risks: The perceived risks which use of the Social Web service may entail should be documented.

Missed opportunities: A summary of the missed opportunities and benefits which a failure to make use of the Social Web service should be documented.

Costs: A summary of the costs and other resource implications of use of the service should be documented.

Risk minimisation: Once risks have been identified and discussed approaches to risk minimisation should be documented.

Evidence base: Evidence which back up assertions made in use of the framework.

5.3 Risk Management Approaches

The risks and opportunities framework provides a high level tool for understanding the policy decisions which need to be taken. This needs to be supported by more specific risk assessment and risk management approaches. Such approaches need to acknowledge that whilst there is a need to understand the potential benefits of social Web services there is also a need to acknowledge and address possible disadvantages of using such services including:

- Potential security and legal concerns e.g. copyright, data protection, etc.
- Potential for data loss or misuse.
- Reliance on third parties with whom there may be no contractual agreements.

A risk assessment and management approach is illustrated below:

Risk	Assessment	Management
Loss of service	Implications if service becomes unavailable. Likelihood of service unavailability.	Non-mission critical use. Have alternatives available. Use trusted services. Investigate services.
Data loss	Likelihood of data loss. Lack of export capabilities.	Evaluation of service. Non-critical use. Testing of export.
Performance problems	Slow performance. Unreliability of service.	Testing. Non-critical use.
Lack of inter- operability	Likelihood of application lock-in. Loss of integration & reuse of data.	Evaluation of integration and export capabilities.
Format changes	New formats may not be stable.	Plan for migration or use on a small-scale.
User issues	User views on services.	Gain feedback.

Note that implementation of this approach requires more detailed and specific details of the risk assessment and risk management approaches.



5.4 Application of Risk and Opportunities Framework to Legal Risks

5.4.1 A Risk Assessment Formula for Copyright Risks

The risks and opportunities framework recognises that although there will be risks when seeking to exploit the Social Web it may be necessary to accept such risks in order to deliver services to the user community. A similar approach can be taken to addressing the risks associated with possible copyright infringement. This approach is taken from the paper on "*Empowering Users and Institutions: A Risks and Opportunities Framework for Exploiting the Social Web*" by Brian Kelly and Professor Charles Oppenheim – see ">http://www.ukoln.ac.uk/web-focus/papers/cultural-heritage-online-2009/>.

The example below relates to copyright infringement, but the same formula applies to all the legal risks identified above. The risk can be calculated as follows:

$\mathbf{R} = \mathbf{A} \mathbf{x} \mathbf{B} \mathbf{x} \mathbf{C} \mathbf{x} \mathbf{D}$

where **R** is the financial risk; **A** is the chances that what has been done is infringement; **B** is the chances that the copyright owner becomes aware of such infringement; **C** is the chances that having become aware, the owner sues and **D** is the financial cost (damages, legal fees, opportunity costs in defending the action, plus loss of reputation) for such a legal action. Each one of these other than **D** ranges from 0 (no risk at all) to 1 (100% certain). **D** is potentially a high number. It is not easy to calculate the cost of loss of reputation.

Factors to bear in mind:

- If the work is to be used in a commercial context (i.e. to generate financial gain) then a rights owner who later becomes aware of the use of their work may be more likely to pursue an action for infringement of copyright than if the work is being purely used for educational purposes.
- The nature of the content used, for example, the rights in high value content, such as commercially produced films, text, images, music and software, are more likely to be actively enforced by their owners.
- Particularly sensitive subject areas are music, geographic data, literary works by eminent authors, and artistic works including photographs and drawings.
- Is there any track record of the contributor ignoring legal niceties in the past?
- Is there any track record of a particular third party having complained before?

Depending on these factors, the risks will vary. However, a Web 2.0 provider that ignored warning signals (e.g. a contributor who ignored legal niceties in the past is allowed to continue to add more materials without checks being made) is likely to receive an unsympathetic hearing from the Courts. Similarly, a service provider who has failed to educate contributors regarding legal issues will also not be viewed sympathetically by a Court.

Ultimately, it is important that the service provider is proportionate about possible risks whilst at the same time prepares suitable mitigating strategies in the eventuality of a complaint. An apology and promise of swift action to rectify is often sufficient.

5.4.1 Reducing the Legal Risks

A cultural heritage organisation making use of the Social Web should ensure that it has clear and robust notice and take down policies and procedures with a clear address given for complaints. Clear instructions should be given as to where and to whom notification of allegedly illegal content should be sent, along with details of the complainer, the complainer's interest in the matter and where the complainer can be contacted. Processes should be put in to place to act expeditiously on such a notification.

5.5 Application of Risk and Opportunities Framework to Web Accessibility

5.5.1 The WAI Guidelines for Web Accessibility

The World Wide Web Consortium (W3C) has a leading role in promoting accessibility of the Web for disabled people. The W3C's Web Accessibility Initiative (WAI) has successfully raised awareness of the importance of Web accessibility and developed a model which can help organisations develop accessible Web resources. WAI promotes a model of accessibility based

on the premise that full conformance with each of three components of the guidelines will achieve the stated goal of universal Web accessibility. Of particular relevance to Web page authors is the Web Content Accessibility Guidelines (WCAG).

In the WAI model, WCAG guidelines are coupled with accessibility guidelines for browsing and access technologies (the User Agent Accessibility Guidelines, UAAG and for tools to support creation of Web content (Authoring Tools Accessibility Guidelines, ATAG. This approach acknowledges that in addition to providers of Web content, developers of authoring tools and of browsers, media players and access technologies also have responsibility towards the provision of accessible Web content.

5.5.2 Limitations of the WAI Approach

Shortcomings of WCAG 1.0 have been described in the paper "Forcing standardization or accommodating diversity? A framework for applying the WCAG in the real world" (see http://www.ukoln.ac.uk/web-focus/papers/w4a-2005/). Organisational policies and approaches to Web accessibility have been informed by the original WCAG 1.0 guidelines. However these guidelines had flaws and limitations which are summarised below:

Theoretical nature of the guidelines: There is a feeling that the guidelines are too theoretical and are based on a W3C perspective rather than real world experiences. For example WCAG supporting documentation makes no mention of widely used Web formats such as PDF and Flash, yet concentrates on open, W3C technologies such as such as RDF, PNG and SVG which are far from ubiquitous and for which very little practical experiences are available.

Dependencies on other WAI guidelines: As mentioned, the WAI model of complementary accessibility guidelines rightly presents accessibility as a tripartite responsibility of users, browser and assistive technology developers, and Web content providers, in practice this model is inappropriate for Web authors, since developments to Web browsers and HTML authoring tools are outside of their control. The target audience of a particular resource may be quite unable or unwilling to use a user agent that supports the User Agent Accessibility Guidelines.

Ambiguity of the guidelines: The guidelines themselves are very ambiguous. Phrases such as 'until user agents' and 'if appropriate' are used which can be difficult to define.

Complexity of the guidelines: Note only are the WCAG guidelines ambiguous but they are also complex. This has led to many documents being written which seek to explain and interpret the guidelines. However this then leads to further confusion as such explanatory documents may perpetuate confusions.

Logical flaws of the guidelines: The wording of the WCAG guidelines could be seen to lead to a number of logical absurdities. For example a strict interpretation of the priority 2 guidelines which states "... use the latest versions [of W3C technologies] when supported" would mean that a WCAG AA conformant HTML 4 Web site would be degraded to WCAG A conformance overnight when XHTML 1.0 was officially released! There are similar flaws when one considers use of GIF (a widely used, but proprietary graphical format) and PNG (an open and rich, but comparatively rarely-used W3C graphical format). Use of a closed graphical format such as GIF would appear to break the WCAG priority 2 guideline which requires Web developers to "Use W3C technologies when they are available and appropriate for a task". But is there any evidence that use of GIF rather than PNG is a significant accessibility barrier?

Level of understanding of accessibility issues required: It needs to be remembered that the vast majority of individuals working to make Web sites accessible, both developers and managers, are not experts in accessibility or access technologies and never will be. Accessibility is one aspect of developing a Web site that they are seeking to understand. Thus expecting them to understand not only WCAG and something of how access technologies deal – perhaps inappropriately - with Web code, but also how WCAG interacts with the other WAI recommendations (e.g. those on user agents and authoring tools) is a considerable undertaking.

In theory, these shortcomings should be of limited impact since the release of WCAG 2.0. It is true that WCAG 2.0 represents a significant change from the approach to accessibility taken in the original WCAG 1.0; in comparison to the HTML-focused WCAG 1.0, WCAG 2.0 is technology-neutral. Its core principles (POUR: perceivable, operable, understandable, robust)

and related 'success criteria' aim to be applicable to the widest possible range of present and future technologies used to deliver content on the Web – including non-W3C technologies. The normative guidelines are meant to be complemented by non-normative, technology-specific 'techniques' documents, detailing specific implementation examples and best practices.

However as with WCAG 1.0, WCAG 2.0 has been developed using a top-down approach, and its newness means that evidence has yet to be gathered on the relevance and effectiveness of the guidelines in a diverse range of use cases. In the lack of such evidence it would be inappropriate for such guidelines to be mandated in isolation without an understanding of the context and relevance of the guidelines, the implementation challenges and the resource implications of adopting such guidelines.

In addition to specific concerns related to use of WCAG, there are also concerns regarding the dependencies of the guidelines on deployment of ATAG and UAAG. The WAI model relies on conformance with each of the three sets of guidelines –WCAG for content, ATAG for the tools used to create the content, and UAAG for the tools used to access that content.

Although Web authors may have control over how well they conform to WCAG, they normally have no control over the browser technologies used to access Web resources. Unlike the advocacy work used to promote WCAG conformance, encouragement towards the creation and take-up of UAAG-conformant browsers has been less successful. Indeed, in Germany and France recent guidance that users should replace Internet Explorer version 6 with more modern browsers has been motivated by IE 6's security limitations, and not its failure to implement many UAAG features.

WCAG conformance, while helpful, cannot, on its own, guarantee universal accessibility as might be mandated by policy and/or legislation. Yet conversely the use of Web content that is not WCAG conformant can increase inclusion to significantly excluded groups by providing access to information and experience. For example, the provision of uncaptioned animation and video may not be accessible to people with hearing or visual impairments but can greatly improve the accessibility of information and experiences to people with low levels of literacy.

There are therefore external factors that limit an organisation's ability to follow a policy or law that mandates technical guideline conformance and at the same time allows them to meet other business objectives; including widening inclusion.

5.5.3 A Holistic Approach to E-learning Accessibility

Accessibility researcher sand practitioners in the UK have developed a holistic approach to Web accessibility for e-learning which promoted an approach based on accessible learning outcomes rather than accessible resources. This model reflects a pedagogical approach which supports a

diversity of learning styles and preferences – if a learner is uncomfortable with an IT solution to learning, then the learner should have the option to chose alternative ways of learning.

This approach, which is illustrated in the accompanying image, treats the student not as someone who is disabled but as someone with alternative learning preferences.

Further, the recent United Nations Convention on the Rights of Persons with Disabilities (2006) requires the activities within a context to be inclusive so that all can participate equally. This draws on Oliver's 'social model' of disability and places emphasis on what is to be done and who will be participating rather than on an absolute standard that is assumed to work for all involved. The social model of disabilities should be recognised now as appropriate to social networking.



Blended Model for E-Leaning

5.5.4 A Holistic Approach to Accessibility in a Cultural Heritage Context

The holistic approach is well suited for use in a Web 2.0 context in which users may exploit a variety of technologies (blogs, wikis, social networking services, RSS feeds, etc.) in both formal and informal ways. In this environment the learner is regarded as an active participant in the learning process, and not just a passive consumer of content. The learner's environment should adapt to the learner's needs and preferences rather than to a standard to which learners are expected to adapt.

A simple example of the need to appreciate the role of context can be seen by considering a volunteer organisation for the visually-impaired. Podcasts may provide a valuable service for this user community, allowing audio content to be automatically transferred to an MP3 device. But compliance with WCAG guidelines would require a textual transcript of the content, even if the target audience could not read such information. The dangers are that mandating WCAG compliance independent from the context of use would lead in this case to the podcast not being developed and the intended audience deprived of a useful and accessible service.

5.5.5 Multimedia Resources

A recent thread on a mailing list used by providers of institutional Web services in UK universities discussed approaches to the accessibility of videos. The initial discussion focused on tools and services which could be used for captioning videos, but the costs of such captioning were also identified as a barrier to the use of such tools. At a time of economic stringencies across the UK HE sector there are increased pressures to be able to justify significant expenditure. Would it be appropriate to spend this amount of money if hundreds of hours of resources need to be captioned?

Paul Boag described an alternative approach for podcasts he publishes. He concludes that "*in* order to be accessible the content of your video or audio do not need to be available in text form word for word. In fact doing so can in some cases damage accessibility. Video, audio and text are different mediums and should be treated as such." His approach was to provide a roughly equivalent alternative to the podcast, typically in a blog post.

5.5.1 Amplified Events

The term 'amplified events' was coined to describe ways in which networks and related technologies are being used to enhance the impact of, and access to, discussions and learning at events such as scholarly conferences. Amplified events may make use of Twitter (as an event 'back channel'), Slideshare, live video streaming and an event tag to allow content to be easily found.

It should be noted that the use of such tools to support remote users or remote speakers does not necessarily make use of WCAG: videos are not necessarily captioned and slides do not necessarily provide an equivalent text alternative. This may be due to the effort in implementing such recommendations, but also reflects approaches taken in the physical conference, where there may not be expectations that speakers' slides will implement WCAG.

Perhaps more importantly, however, is the view that providing amplification can enhance accessibility for those who may not, or cannot be present at the event. This might include those with physical disabilities who wish to participate but for whom international travel may be difficult, and those from developing countries for whom there may be financial or political barriers to international travel.

6 Addressing Barriers Through Cultural and Political Changes

The Social Web helps institutions to achieve a more agile and collaborative approach in their work.

As Andy Gibson recently wrote about social media in *Local by Social*, "not engaging now represents a far greater risk than engaging."

6.1 Government Lead in Change

Central Government has been leading the way for public institutions and local government in using Social Media. It has put speeches by the Prime Minister on YouTube, used live streaming video from conferences, and has active accounts on Twitter for most Government Departments.

There is general agreement across the political parties that digital issues and policies will be key to the UK's ability to thrive economically in the 21st century.

In his speech on the morning of 22nd March 2010 about Britain's digital future, the Prime Minister Gordon Brown made it clear that the public should and will have access to non-private public data, and that the Government's web sites will be interactive, Web 2.0 type, enabling people to comment and interact.

This should provide a strong steer to those local authorities that have not already started to use the Social Web that they should, and will need to as the pioneering councils move towards positively encouraging greater democracy, and even to cutting costs and reducing their carbon footprint by enabling more staff to work remotely.

6.2 Cultural Heritage as Carrot

The people working in cultural heritage need to be amongst the early adopters of using the Social Web. They have already developed skills and techniques for connecting with the public, interesting the public in information and in developing knowledge and skills. Some have proved that they can use the Social Web very effectively and can provide examples for the other public services to follow. Others are nervous of using such online services because they are less comfortable with using digital information technology, partly as a result of insufficient training.

Most people are interested in cultural heritage. The unprecedentedly long queues to get into the Staffordshire Hoard exhibition in Birmingham were a good visual example of the potential interest. The interest in family history has grown rapidly as historical records have become increasingly available and easier to access via the Web. Even those who remember history at school as being one of the driest and most boring of subjects, but are fascinated when they discover some snippet of heritage relating to their everyday environment. The first phase of using the Web enabled us to put digitised cultural heritage content online, and then try to get people to find it.

The Social Web enables us to connect the content with people in their environment, for cultural heritage to take content to where people are on the Web. Smart phones being able to put such information, and images, at their fingertips helps to make the connection between individual and historic environment.

The potential for using cultural heritage as the carrot that entices people to use public services online is immense. Five or six years ago, I managed to persuade a couple of senior people to explore the Web through introducing them to heritage online. In each case it took less than 10 minutes to get them browsing online heritage collections. The technology has improved since then so it is now easier for people to use computers and the Web. Presented in the right way, culture is cool for young and old alike.

7 Ways Forward

As mentioned previously, people are sufficiently interested in UK heritage to spend enough for heritage to contribute more to the UK's Gross Domestic Product than car manufacturing. We need to shift ideas of the role and priority of both cultural heritage and public digital resources in local and national contexts.

As Nick Poole stated, whichever political parties end up in power at local or national level, it will not change the impetus to use the Social Web. It can also help cultural heritage institutions to build upon past achievements, and can be a cheaper way of delivering more.

People in cultural heritage need to maintain dialogues with colleagues in other areas of public services who are also aiming to open up use of the Social Web. It was interesting to observe how few people from culture or heritage services attended the LocalGovCamp in London on 4th March 2010. Possibly the venue of the Yorkshire and Humberside LocalGovCamp in June 2010 - at the National Railway Museum in York – might encourage more.

At national level, the Collections Trust has provided some leadership by using and experimenting with new Social Web applications. UKOLN has proved very supportive both in the workshops and through the invaluable online resources that it provides. However, there is more need for strong leaders who understand both cultural heritage and the Social Web, and who can help change to happen.

People representing cultural heritage should be involved in the conversations with those leading digital engagement and digital inclusion initiatives. They have aims in common and could strengthen the case for change by speaking together. At an informal level, this has already begun to happen. Cultural heritage should be seen as part of the delivery of online public services rather than (as it tends to be now) something separate.

Digital cultural heritage people could help to encourage the digitally excluded people to use the Web. They could also help professionals in other services and sectors to deliver online information effectively and efficiently.

At an individual level, people need to build up confidence in using information technology and especially in using the cost-effective Social Web. UKOLN's Introduction to Web 2.0 workshops have been well-attended, and concentrated very much on introducing people to the various aspects of the Social Web. There will almost certainly be a continuing need for that level of workshop as the message about the need to open up public resources on the Web filters down through local government. More advanced levels of workshop providing more specific practical training in how to produce suitable content for and use the Social Web to suitable standards would also be useful.

A straightforward, concise best practice guide, preferably using Social Web facilities (for example, videos), would be very helpful, especially for the smaller cultural heritage organisations. This should be online and downloadable, with a good glossary and comments enabled, together with a Frequently Asked Questions database. People are often shy about appearing ignorant in front of others and then hesitate to implement what they have learned because they are unclear about one or two minor things.

It would also be worth considering setting up regional social media 'surgeries.' These would be informal, drop-in events with a few people expert in using the Social Web technologies available for a day (or an afternoon through to early evening) to help professionals or volunteers working in cultural heritage to get online, set up Facebook pages, Twitter accounts or blogs. This could be done, perhaps, working with local authority IT/Web teams so that they gain better understanding of the specific needs in such work.

The most powerful tools in pushing forward and expanding the use of the Social Web in cultural heritage institutions will be giving people the confidence to try them; and trusting them to be as responsible and professional using the Social Web as they are using any other channels of publication and communication.

Appendix A: Glossary of Acronyms and Specialist Terms Used

blog: derived originally from the term 'web-log,' this is a web site with automatically dated entries (text or images) that usually display in date and time order, most recently-published appearing at the top.

micro-blog: the generic name for a blogging service that limits entries to text and to a small number of characters. Twitter is the best-known of these, and allows 140 characters (including spaces) + up to 20 characters for the account name.

social bookmarking: Web services that enable people to save and share publicly links to online material, with the facility to add comments and categorise. Examples of services: Delicious and Stumbleupon.

social network services: usually software or web sites available through web browsers that enable individuals and communities to communicate with each other, often multimedia. Typical popular social network services include Bebo, Facebook, and MySpace.

Tweeter: Someone with an account on the micro-blogging service, Twitter.

Twitter: a micro-blogging service, set up in 2006, that allows people to publish text messages and hyperlinks on the Web, with a limit of 140 characters (including spaces).

Tweet: an update (in the form of a message in text) by someone on Twitter, and the act of creating and sending the message.

Web CMS: Web Content Management System: software that includes text editing, database and web publishing facilities to create, edit and publish online the contents of web sites.

Wiki: Wikis are web sites that enable quick and easy creation of web pages that can be linked together. Wikis are especially useful for collaborative or community web sites with multiple authors. The best known of the wikis is Wikipedia, but there are many others online, and a number of free-to-use services online for people to set up their own wiki sites.

Appendix B: Useful Resources

General Resources

Phil Bradley's Web Site contains a useful list of Web 2.0 applications with brief descriptions and links to the relevant web sites.<http://www.philb.com/iwantto.htm>

Alexandra Eveleigh's Archives_UK Twitter list <http://twitter.com/ammeveleigh/archivesuk/members>

Jim Richardson's international list of museums on Twitter (in 2 parts). <http://twitter.com/MuseumMarketing/museums-on-twitter/members> and <http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>

Social by Social Jargonbuster – provides definitions of many terms used in the context of the Social Web. http://www.socialbysocial.com/book/jargonbuster-0>

A glossary. Paul Clarke's "glossary of social media and digital engagement terms" http://paulclarke.com/honestlyreal/2010/03/a-glossary/

UKOLN Web Resources

The Cultural Heritage section of the UKOLN web site contains much useful advice.

<http://www.ukoln.ac.uk/cultural-heritage/>

UKOLN resources are available to support the work including:

Peer-reviewed Papers

The following peer-reviewed paper describes aspects of a risk assessment and risk management approach to use of the Social Web.

Empowering Users and their Institutions: A Risks and Opportunities Framework for Exploiting the Potential of the Social Web,

Kelly, B. CULTURAL HERITAGE online conference, Florence, 15-16th December 2009. http://www.ukoln.ac.uk/web-focus/papers/cultural-heritage-online-2009/>

Library 2.0: Balancing the Risks and Benefits to Maximise the Dividends, Kelly, B., Bevan, P., Akerman, R., Alcock, J. and Fraser, J. Program (2009), Vol. 43, No. 3. pp. 311-327. http://www.ukoln.ac.uk/web-focus/papers/program-2009/>

Time To Stop Doing and Start Thinking: A Framework For Exploiting Web 2.0 Services,

Kelly, B. in J. Trant and D. Bearman (eds.) Museums and the Web 2009: Proceedings, Toronto: Archives & Museum Informatics. Published March 31, 2009. http://www.ukoln.ac.uk/web-focus/papers/mw-2009/>

Web 2.0: How to Stop Thinking and Start Doing: Addressing Organisational Barriers

Ellis, M. and Kelly, B. Museums and the Web 2007, San Francisco, USA, 11-13 April 2007. Conference Proceedings (CD ROM). http://www.ukoln.ac.uk/web-focus/papers/mw-2007/paper-web2.0/

Briefing Documents

The following peer-reviewed paper describes aspects of a risk assessment and risk management approach to use of the Social Web.

Risk Assessment for Use of Third Party Web 2.0 Services, UKOLN Cultural Heritage briefing document no. 70. http://www.ukoln.ac.uk/cultural-heritage/documents/briefing-70/

A Risks and Opportunities Framework For The Social Web, UKOLN Cultural Heritage briefing document no. 67. http://www.ukoln.ac.uk/cultural-heritage/documents/briefing-67/

Using the Risks and Opportunities Framework, UKOLN Cultural Heritage briefing document no. 68. http://www.ukoln.ac.uk/cultural-heritage/documents/briefing-68/

Blog Posts

The following relevant blog posts have been published on UKOLN blogs::

Save £1million and Move to the Cloud? 20 Jan 2010,

<http://ukwebfocus.wordpress.com/2010/01/20/save-1million-and-move-to-the-cloud/>

An Opportunities and Risks Framework For Standards 6 Jan 2010, http://ukwebfocus.wordpress.com/2010/01/06/an-opportunities-and-risks-framework/

The Risks and Opportunities Framework 17 Dec 2009,

<http://ukwebfocus.wordpress.com/2009/12/17/the-risks-and-opportunities-framework/>

The 90% Who Can and the 90% Who Can't 11 Feb 2010, http://blogs.ukoln.ac.uk/cultural-heritage/2010/02/11/the-90-who-can-and-the-90-who-cant/>

Guest Post: "What's my email address anyway Miss?" Communicating with the Facebook generation 27 Jan 2010, <http://blogs.ukoln.ac.uk/cultural-heritage/2010/01/27/whats-my-email-address-anyway-miss/>

A Realistic and User-Focussed Approach to Web Accessibility 2 Oct 2009, http://blogs.ukoln.ac.uk/cultural-heritage/2009/10/02/a-realistic-and-user-focussed-approach-to-web-accessibility/

Responding To Social Web Challenges 6 Aug 2009, <http://blogs.ukoln.ac.uk/cultural-heritage/2009/08/06/responding-to-social-webchallenges/>

A Risks and Opportunities Framework for the Culture Grid 22 Jul 2009, http://blogs.ukoln.ac.uk/cultural-heritage/2009/07/22/a-risks-and-opportunities-framework-for-the-culture-grid/

Explaining the Risks and Opportunities Framework 21 May 2009, http://blogs.ukoln.ac.uk/cultural-heritage/2009/05/21/explaining-the-risks-and-opportunities-framework/

Feedback From Events

The following feedback on opportunities and barriers was gathered at UKOLN workshops:

Newcastle, Feb 2010:

Opportunities and Barriers: <http://ukoln-social-web-workshops.wetpaint.com/page/Newcastle_Breakout>

Leeds, Dec 2009:

Opportunities and Barriers: http://ukoln-social-web-workshops.wetpaint.com/page/Leeds_Breakout>

Co-read East, Nov 2009:

Opportunities: Barriers: ">http://readeast-2009.wetpaint.com/page/Barriers>

East Midlands, Mar 2009:

Opportunities: <http://web20-renaissance-eastmidlands-2009.wetpaint.com/page/Opportunities> Barriers: <http://web20-renaissance-eastmidlands-2009.wetpaint.com/page/Challenges>

West Midlands, Feb 2009:

Opportunities: <http://web20-renaissance-westmidlands-2009.wetpaint.com/page/Opportunities> Barriers: < http://web20-renaissance-westmidlands-2009.wetpaint.com/page/Challenges>

Swansea, Sept 2008:

Opportunities: <http://sharing-made-simple-20080910.wetpaint.com/page/opportunities> Barriers: <http://sharing-made-simple-20080910.wetpaint.com/page/barriers>

Bangor, Nov 2008:

Opportunities: <http://sharing-made-simple-20080924.wetpaint.com/page/opportunities> Barriers: <http://sharing-made-simple-20080924.wetpaint.com/page/barriers>

Yorkshire, May 2008:

Opportunities: <http://mla-yorkshire-2008-05.wetpaint.com/page/Feedback+from+discussion+groups+-+exploring+and+implementing+options> Barriers: <http://mla-yorkshire-2008-05.wetpaint.com/page/Feedback+from+groups+about+barriers+and+solutions>

London, Jul 2008:

Opportunities & Barriers: http://mla-london-2008-07.wetpaint.com/page/Discussion+groups>

London, Jun 2007:

General: <http://sharing-made-simple-2007-06.wetpaint.com/page/Topics+For+General+Discussion>

Appendix C: Examples of Uses of Social Web by Cultural Heritage Institutions

General Examples

- The World Beach Project: Sue Lawty (working as artist-in-residence) in association with the V&A. http://www.vam.ac.uk/collections/textiles/lawty/world_beach/ >
- Newcastle Libraries Blog. http://community.newcastle.gov.uk/libraries/
- West Yorkshire Archives on Twitter. http://twitter.com/wyorksarchives>
- **Museums on Twitter (international).** Jim Richardson (@MuseumMarketing on Twitter) has compiled two lists of museums throughout the world that have Twitter accounts. http://twitter.com/MuseumMarketing/museums-on-twitter/members and http://twitter.com/MuseumMarketing/museums-on-twitter/members and ">http://twitter.com/MuseumMarketing/museums-on-twitter/members and ">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/museums-on-twitter-part-2/members>">http://twitter.com/MuseumMarketing/@http://twitter.com/Museums-on-twitter-part-2/members>">http://twitter.com/Museums-on-twitter-part-2/members>">http://twitter.com/Museums-on-twitter-part-2/members

UK Archives on Twitter

- Alexandra Eveleigh (@ammeveleigh on Twitter) has compiled the Archives_UK Twitter list <http://twitter.com/ammeveleigh/archives-uk/members>
- My Life As An Object project commissioned by Renaissance East Midlands about objects in the collection of Nottingham City Museums and Galleries.<http://www.mylifeasanobject.com/about>
- **Greg Povey**, '**My Life As A Chopper**,' (the person who tweeted as the Raleigh Chopper bike, writes about his experience of being the first of the My Life projects, and how he developed his role and created a narrative and personality for the object): http://mountanalogue.wordpress.com/2010/03/22/my-life-as-a-chopper/

Examples of Flickr Accounts and Groups

- Birmingham Museums and Art Gallery. http://www.flickr.com/photos/birminghammag/
- British Museum Group Pool. http://www.flickr.com/groups/britishmuseum/
- Hartlepool Museum and Heritage Service.
 http://www.flickr.com/photos/hartlepool_museum/
- Museum of London Group Pool. http://www.flickr.com/groups/museumoflondon/>
- Natural History Museum. <http://www.flickr.com/groups/nhm/>
- Newcastle Libraries (Tyneside Life and Times).
 http://www.flickr.com/photos/newcastlelibraries/
- Science Museum. <http://www.flickr.com/groups/sciencemuseum/>
- V&A Museum Group Pool. http://www.flickr.com/groups/va_museum/
- Britain Loves Wikipedia. < http://britainloveswikipedia.org/wiki/Main_Page>

Examples of Facebook Accounts

- Baltic Centre for Contemporary Art. < http://www.facebook.com/#!/balticmill?ref=ts>
- Birmingham Museum & Art Gallery (UK).
 http://www.facebook.com/#!/pages/Birmingham/Birmingham-Museum-and-Art-Gallery-UK/34806457974?ref=nf>
- British Library. <http://www.facebook.com/#!/britishlibrary?ref=ts>
- Hunterian Museum & Art Gallery, Glasgow.
 ">http://www.facebook.com/#!/pages/Glasgow-United-Kingdom/Hunterian-Museum-and-Art-Gallery/59553444276?ref=ts>
- The National Archives (UK). <http://www.facebook.com/#!/TheNationalArchives?ref=ts>
- The National Gallery, UK.
 ">http://www.facebook.com/#!/group.php?gid=5938065811&ref=ts>
- The National Trust. http://www.facebook.com/#!/group.php?gid=5938065811&ref=ts
 The Tate.
 - <http://www.facebook.com/tate#!/tategallery?v=wall&viewas=636883862&ref=ts>