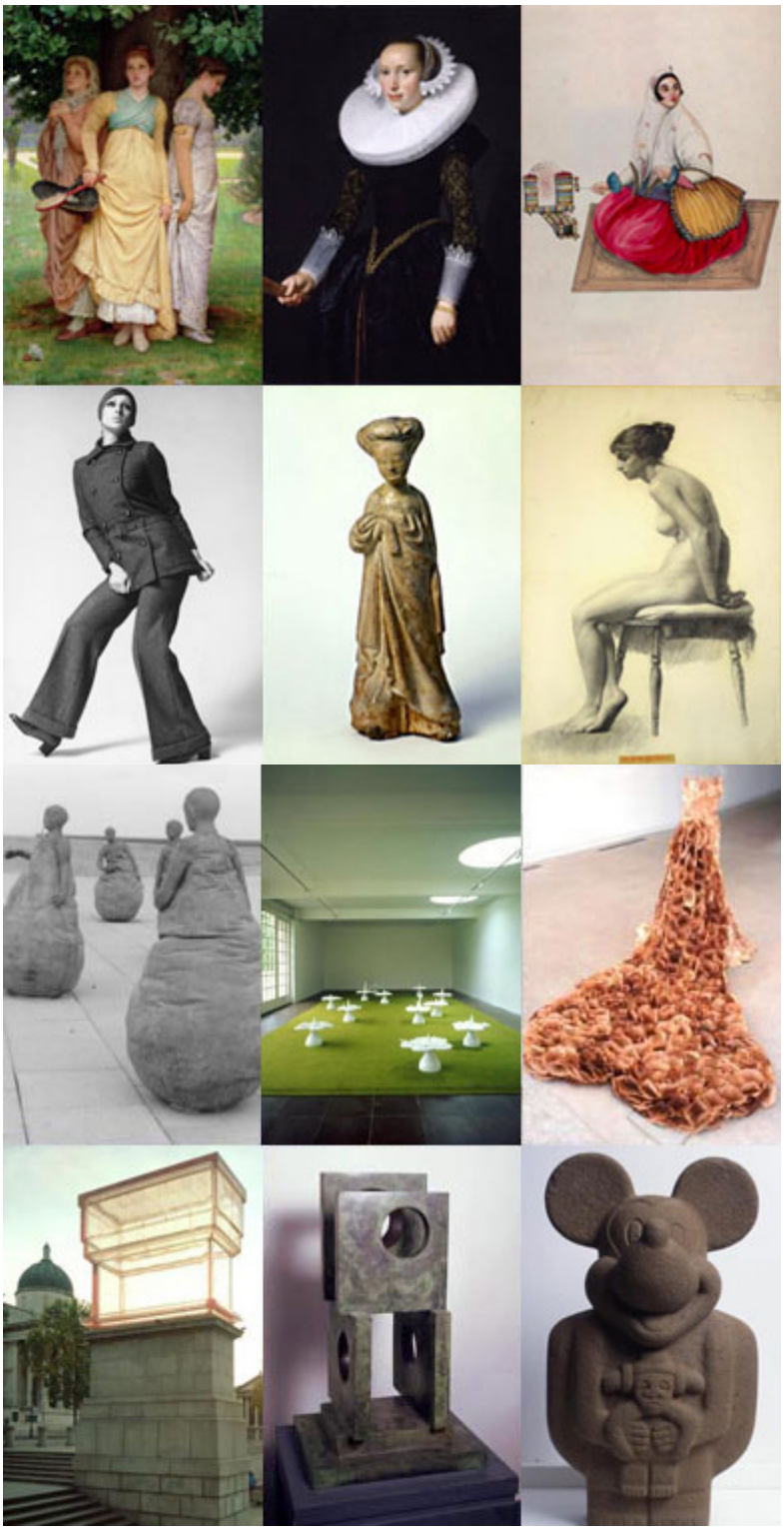
picshare uk



[Image credits at: vads.ac.uk/picshare]

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Executive Summary

The aim of this case study was to investigate the potential for aggregating digital image collections in the visual arts from across the education, museum and commercial sectors, for use within the UK higher and further education community. The research was conducted by VADS, and is one of several subject-based case studies commissioned by JISC and the HEA to investigate some of the recommendations made in an earlier report by the CLiC project.

The case study consulted with collection owners from across the three sectors about the issues, barriers and motivations for sharing access to their images. The methodology employed included an online questionnaire circulated to 200 image collections and interviews with a selection of collection owners as well as interviews with several aggregator projects.

This case study coincided with a raft of new projects and initiatives, such as the European Digital Library portal and the Strategic e-Content Alliance, that are exploring ways to connect and aggregate museum and cultural heritage collections online, and the report starts with an overview of these initiatives.

The questionnaire received responses from 89 image collections across the UK. Most of these collections (75%) had not participated in any cross-search services or prototypes, but the overwhelming majority (88%) were willing to explore this in future.

In addition to this, the following findings were drawn:

- The majority of respondents, including a number of subscription-based and commercial collections, said part of their remit was to provide image resources for educational purposes, including for formal HEIs, schools and colleges, and more general public educational consumption.

- Notwithstanding commercial and subscription-based image providers, several respondents from small institutions felt there was little leverage in actually making profit from their image collections by licensing them for commercial purposes.

- The general consensus was that most aggregator projects haven't taken off and haven't attracted a large user base.

- There was some feeling that end-users were unlikely to be attracted to large, potentially unrelated, difficult to cross-search image collections, simply because there were potentially a greater number of images to choose from, and that aggregators should be subject-led.

- To date, most respondents had not taken part in sharing initiatives but 88% (74 collections) were willing to explore this in future.

- Copyright was the most frequently expressed concern amongst collection owners.

- Marketing and publicity were given as a major reason for collections being willing to participate in sharing their data in the expectation that it would draw new potential traffic to their websites.

- Technical concerns are less of an issue amongst larger image collections. Smaller collections showed the most concern regarding technical expertise, and many felt unable to contribute to sharing on the basis that it would cost them money and time to outsource technical expertise.

- While most people used a recognised standard schema such as DC or VRA, Spectrum and ITPC, or at least customised one as a basis for their schema, respondents felt that the way in which they used the data would differ quite markedly from other collections ostensibly using the same schema.

- Thus cross searching between collections in a systematic and managed way would be impossible without further enhancement made to data.

The report recommends the following:

- More user research and consultation is needed to identify users' specific needs and to ensure that the development of aggregator services is properly user-led.
- Rather than setting up new services to aggregate image data, established image collections – that already have a known user base – would seem the most appropriate place to start.
- Larger image collections could partner with small institutions that can fill gaps in their coverage, and provide small institutions with the technical support for sharing their content.
- More consideration and investment should be made into the marketing of collection sharing initiatives, with clear evidence of how they can benefit collection owners and fulfill their educational remit.
- Collections need clearer advice and strategies to deal with the IPR issues with sharing their content. This is currently being considered as part of the Strategic e-Content Alliance IPR Consultancy Project.
- There is a need to research ways of enhancing metadata for cross-search purposes, such as the use of taxonomies and folksonomies.

picshare uk: final report

June 2008

Introduction

This report presents the findings from picshare uk, a case study carried out by VADS and funded by the JISC and the Higher Education Academy. The aim of the study was to elicit views from the owners and managers of art and design image collections from across the education, museum, and commercial sectors, about the possibility of linking those digital image collections for use within the UK higher and further education community. The project asked collection owners what they thought about the aggregation and cross-searching of digital image collections through methods such as the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)[1], and the issues, barriers, and motivations for sharing access to their collections in this way.

Background

picshare uk is one of five subject-based case studies commissioned by JISC to investigate some of the recommendations made in the CLiC report of June 2006.[2] The CLiC project was set the task of investigating a suitable technical and organisational model to support the deposit and sharing of images within higher and further education. The network model that was proposed by CLiC was based on some level of interoperability between digital image collections, via metadata cross-searching or aggregation using methods such as the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).[3]

The report also recommended that partnerships should be explored for sharing subject material across the education, museum and commercial sectors. The picshare uk project has consulted with a wide range of collections from across these sectors, from education collections and projects such as the University of Manchester's John Rylands Library, and the British Cartoon Archive at University of Kent, to national and regional museums such as the National Galleries of Scotland and Birmingham Museum and Art Gallery, to commercial picture libraries such as Bridgeman and Mary Evans.[4]

Current Landscape

Related Projects in the Museums Sector

This case study coincides with a raft of new projects and initiatives that are exploring ways to connect and aggregate museum and cultural heritage collections online.

Europeana, the forthcoming EU-funded European digital library prototype, will aggregate library, museum and archive content from national portals across Europe, bringing together two million digital objects. The project intends to use simple Dublin Core records aggregated via OAI-PMH and the prototype website is due to launch in November 2008.[5]

The People's Network Discover Service, launched in 2005, uses OAI harvesting to bring together content from various library, museum and archive collections in the UK, including a number of lottery funded

[1] Open Archives Initiative Protocol for Metadata Harvesting
<http://www.openarchives.org/pmh/>
[2] JISC, 'Image Case Studies'
<http://www.jisc.ac.uk/whatwedo/programmes/digitalrepositories2007/imagecasestudies.aspx>
[3] Miller, J., Robinson, P., Shepherd, R., Youngs, K., and Young, G., 'CLiC: Community-Led Image Collections', June 2006, p.5-6
<http://www.jisc.ac.uk/uploaded_documents/CLIC_Report.pdf>
[4] Miller, J. et al., p. 6.
[5] Europeana: Connecting Cultural Heritage
< http://www.europeana.eu/about.php>

digitisation projects.[6] MLA also plans to feed content from the Discover Service to other initiatives including the Europeana portal and the BBC Centuryshare prototype.

The National Museums Online Learning Project is a collaboration between nine national museums and galleries to develop online resources aimed at schools and lifelong learners, and is due to launch in March 2009. The project has also conducted an investigation into federated searching technologies (including OAI, SRU and OpenSearch) and a prototype has been developed with three of the project partners using OpenSearch. [7]

The Museum Collection Sharing Working Group led by OCLC in the United States, has been experimenting with the use of OAI and the new CDWA-Lite XML specification. The outcome of this project has been the development of open source harvesting software geared specifically towards art museums.[8] In 2008, OCLC started another project to further develop standards for museum data exchange and to create a research aggregation from eight US museums as well as the Victoria and Albert Museum in the UK, to look at areas where the metadata records could be upgraded or harmonised.

Another relevant project in the museums sector is the National Collections Online Feasibility Study, led by a consortium including the Victoria and Albert Museum, the National Maritime Museum, the National Museum of Science and Industry, Culture24 and the National Museum Directors' Conference. The aim of the study is to consider the viability of an online resource integrating national museum collections. The project has brought together a community of enquiry to discuss the issues and the study is due to be completed in July 2008.[9]

At the same time, some members of the Museums Computer Group are experimenting with creating their own prototypes for aggregating and presenting museum object data.[10] One member has created a prototype using metadata obtained from a number of UK museums by way of a Freedom of Information request.[11] Other members have developed a prototype system for bringing together different collections using screen scraping.[12] They are keen for museums to openly share their data so that anyone can re-use and present museum content in new ways. Notably, the British Museum is currently looking internally at the feasibility of offering an open API onto their database.[13]

Related Projects in the Education Sector

In the education sector, EDINA's Visual and Sound Materials portal scoping study and demonstrator project set out to investigate the value and feasibility of a national portal for both time-based media and image collections dedicated to the needs of the further and higher education communities. The project was funded by the JISC portals programme, and the outcomes of the project and how the portal might form part of the presentation layer in the technical architecture for the JISC Information Environment are now being considered by JISC.[14]

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[6] People's Network Discover Service
<http://www.peoplesnetwork.gov.uk/discover/>
[7] Makewell, T., 'The National Museums Online Learning Project Federated Collections Search: Searching across Museum and Gallery Collections in an Integrated Fashion', Museums and the Web Conference 2008
<http://www.archimuse.com/mw2008/papers/makewell/makewell.html>
[8] OCLC, 'Museum Collections Sharing Working Group Project'
<http://www.oclc.org/programs/ourwork/collectivecoll/sharecoll/museumcollwg.htm>
[9] Mackenzie, B., 'National Collections Online Feasibility Study', Museums Computer Group Spring Conference 2008
<http://www.slideshare.net/museumscomputergroup/national-collections-online-feasibility-study/>
[10] Mashed Museum
<http://mashedmuseum.pbwiki.com/>
[11] Roberto, Frankie, 'Exploring Museum Collections Online: the Quantitative Method', Museums and the Web Conference 2008
<http://www.archimuse.com/mw2008/papers/roberto/roberto.html>
[12] Hoard.it
<http://feeds.boxuk.com/museums/>
[13] Cock, M., 'British Museum Collection Online Update', email to MCG JISCmail list, 30 May 2008.
<http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0805&L=mcg&T=0&F=&S=&P=9890>
[14] VSM Portal Demonstrator
<http://edina.ac.uk/projects/vsmportal/index.html>

The Strategic e-Content Alliance is a three-year initiative funded by JISC, working with six major publicly-funded organisations, with the aim of reducing the barriers that currently inhibit access, use and re-use of online content. BBC Centuryshare is a pilot developed with the Strategic e-Content Alliance, which aims to promote interoperability by gathering data from organisations and displaying it. The intention is to display the data on a timeline similar to the BBC Memoryshare website and to augment it with information added by users and professionals. The project is due to be launched in March 2009.[15]

Over the past few years JISC has made a major investment in the development of institutional repositories in UK higher education and the Intute Repository Search Project has begun to develop facilities for searching across text-based content in these repositories.[16] Whilst at present there are very few image collections in institutional repositories and the dominant collection focus is on e-prints and e-theses,[17] there are now several JISC-funded projects underway to develop repositories specifically attuned to the requirements of images and time-based media (such as the KULTUR, Storage Space, and SAFIR projects[18]). JISC has also commissioned the development of an Images Application Profile for describing images in institutional repositories, and the Intute Repositories Search Project intends to include image searching within its remit in the future.[19]

For more information about each of these projects, see Appendix A.

Flickr: The Commons

Several cultural heritage organisations are also providing access to their collections through social networking sites such as Flickr, the popular community photo-sharing website.[20] One key attractor for using Flickr is that museums can tap into an existing huge community of people who otherwise would be very unlikely to come across their material.

Flickr has recognised this use and in January 2008 launched Flickr Commons in collaboration with the Library of Congress specifically for this purpose.[21] The aim of Flickr Commons is to provide a taste of the hidden treasures in the world's public photography collections and to enable the public to give their input and knowledge through leaving comments and tags. The project launched with around 3000 images selected from the archives at the Library of Congress and a further selection of images was launched in April 2008 from the Powerhouse Museum in Sydney and from the Brooklyn Museum in May. Flickr have since received over 30 enquiries from large to small libraries and museums who are interested in adding their content to the Flickr Commons project.[22]

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[15] SCA Blog, 'JISC conference - Strategic Content Alliance: building bridges to e-content', 15 April 2008
<http://sca.jiscinvolve.org/2008/04/15/jisc-conference-strategic-content-alliance-building-bridges-to-e-content/>
[16] Intute Repository Search
<http://www.intute.ac.uk/irs/index.php>
[17] Shotton, D., Zhao., J, Klyne, G., 'Images and Repositories: Present Status and Future Possibilities', August 2007, p. 23.
<http://www.jisc.ac.uk/publications/publications/diafinalreport.aspx>
[18] KULTUR aims to create an institutional repository model for research output in the creative and applied arts. The project partners include the University of Southampton, University of the Arts London, University College for the Creative Arts, and VADS.
Storage space intends to create repository services for University College Falmouth (incorporating Dartington College of Arts).
The SAFIR (Sound Archives Film Images Repository) project aims to set up a multimedia research repository or repositories to provide a Digital Library service for the University of York.
[19] Eadie, M., 'Towards an Application Profile for Images', Ariadne, April 2008
<http://www.ariadne.ac.uk/issue55/eadie/>
[20] E.g. East Lothian Museum Collection, Wessex Archaeology, American Museum of Ceramic Arts etc.
Museums are also using Flickr for documenting exhibitions (e.g. Love at the Laing Art Gallery); for behind the scenes documentation (e.g. Brooklyn Museum); to solicit public uploads for exhibitions/competitions (e.g. Tate's "How We Are Now" exhibition); and to encourage visitors to upload their own photographs of the galleries, buildings, collections, and museum events.
The Brooklyn Museum has also created an Artshare application for Facebook, which enables people to save images of artworks to their profile. It currently includes a selection of images from 14 museums.
[21] Flickr: The Commons
<http://www.flickr.com/commons>
[22] Oates, G., 'The Commons on Flickr: A Primer', Museums and the Web Conference 2008
<http://www.archimuse.com/mw2008/papers/oates/oates.html>

Academic Image Reproduction Fees

Another development which bears significance for this study is the decision by several major art museums to scrap their image reproduction fees for academic publishing.

The policy of charging reproduction fees for this purpose has been a contentious one. The Association of Art Historians argues that the policy of charging copyright fees for scholarly publishing effectively imposes a tax on art historians carrying out their work.[23] The costs are very seldom met by publishers or other institutions, and in restricting access to and use of collections in this way, publicly-funded museums and galleries are not fulfilling their public role.[24]

However, from January 2007, the Victoria and Albert Museum scrapped fees for the reproduction of their images in academic publications with a print run of less than 4000. The images are freely available to download as high resolution files provided that the objects are no longer in copyright and that you've registered with the website. These high resolution images are also available free for use in private research and student dissertations.[25] Since the V&A's announcement, the Metropolitan Museum of Art, the National Gallery in London, and the British Museum have also waived image reproduction charges for small-scale academic publishing.[26]

In the case of these museums, there has been a significant change in policy in order to better serve their educational and public role.

Approach

The information presented in this study was gathered through meetings and phone interviews with representatives from several image collections in the education, museum and commercial sectors. These representatives included staff from SCRAN, the National Galleries of Scotland, Bridgeman Art Library, and Wellcome Images.

The case study was also discussed with several of the aggregator services and projects mentioned above, including the People's Network Discover Service, EDINA VSM portal, and OCLC.

For a list of people consulted during the project, see Appendix B.

Information was also gathered via an online questionnaire during February and March 2008. The questionnaire was aimed at the owners and managers of online image collections, from universities, colleges, museums, not-for-profit organisations, and commercial picture libraries, covering the visual arts and cultural heritage.

Over 200 image collections were contacted directly by email to ask if they would like to participate in the survey or to give feedback by email or telephone. The collections contacted included: those classified as art and design in the CLiC online directory of image collections; collections identified by the Art Libraries Society (ARLIS) Visual Resources Committee; collections identified through Intute and the MICHAEL inventory of cultural heritage collections; visual arts collections listed on the British Association of Picture Libraries and Agencies (BAPLA) directory; and others identified by VADS.

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[23] Cruise, C. 'Response to the Digital Picture Survey from the Association of Art Historians' in The Digital Picture Final Report, 2005, p.57
<http://thedigitalpicture.ac.uk/documents/pdf/digital_picture_final_report.pdf>

[24] Nicoll, J. 'Why Art Publishing is in Crisis', *Apollo*, May 2005

[25] Bailey, M., ' V&A to Scrap Academic Reproduction Fees', *The Art Newspaper*, December 2006
<http://www.theartnewspaper.com/article.asp?id=525>

[26] Metropolitan Museum of Art, 'Metropolitan Museum and ARTstor Announce Pioneering Initiative to Provide Digital Images to Scholars at No Charge', 12 March 2007
<http://www.metmuseum.org/press_room/full_release.asp?prid=%7BA113E0AD-AA4E-471B-8F04-736A21F1A70A%7D>
The National Gallery Picture Library, 'Academic Discounts'
<http://www.nationalgalleryimages.co.uk/Academic-Discounts.aspx>
British Museum, 'Terms and Conditions for Free Image Service'
<http://www.britishmuseum.org/about_this_site/terms_of_use/free_image_service.aspx>

The survey was advertised on relevant Jiscmail lists, the TASI website, and the Art, Design and Media Higher Education Academy website. A project website was set up at www.vads.ac.uk/picshare with further information about the study and a link to the questionnaire.

The questionnaire included 15 questions divided between three sections: the first section asked for some basic details about the collection; the second asked about the purpose of the collection; and the third section asked questions about sharing access to the collection. There were spaces for leaving comments after most of the questions and at the end of the questionnaire. The questionnaire was kept deliberately short to encourage as many responses as possible, and it was trialled with one collection and some modifications were made as a result of their feedback before it was circulated more widely.

A copy of the questionnaire is available in Appendix C.

Results

Responses were received from staff at 89 different image collections across the UK and a full list of respondents is available in Appendix D. Most of the questionnaires were completed in full but a few of the respondents skipped over some of the questions.

Targeting collections directly by email proved to be the most effective method for getting responses, with 80 out of 200 collections contacted by email taking part in the survey.

Collection Details

The first section of the questionnaire asked for basic details about the collections, including the title, web address, the name of the organisation, contact details and the job title of the person completing the questionnaire. The respondents came from a wide range of collections, including:

National and regional museums, libraries and archives	*e.g. Tate, National Archives, Birmingham Museums & Art Gallery*
Other public bodies	*e.g. British Council, English Heritage*
Museum, library and archive collections and digital repositories in Higher Education	*e.g. Hunterian Museum & Art Gallery, York Digital Library*
Digitisation projects funded through schemes such as lottery, JISC, AHRC	*e.g. Imaging the Bible, Ideal Homes: Suburbia in Focus*
Subscription services and commercial picture libraries	*e.g. Land of Lost Content, Advertising Archives, Mary Evans Picture Library*
Image collections compiled by individual academics	*e.g. davidgill.co.uk*

The respondents also had a range of job titles and responsibilities. Broadly speaking they included:

Staff with responsibility for physical collections	*e.g. Archive Managers, Collection Managers, Curators, Librarians*
Staff with responsibility for digital content	*e.g. Digital Archivists, Digital Library Managers, Digital Officers, Web Managers*
Staff with responsibility for collection documentation	*e.g. Documentation Managers, Head of Records*
Staff with responsibility for licensing image reproductions and picture library sales	*e.g. Picture Library Managers, Head of Rights and Reproductions, Sales Managers*
Academic staff	*e.g. Professors, Researchers*
Managing Directors	

The collections varied in size from a collection of just 12 images to a collection of around 750,000 images, and in total the collections represented 3,814,511 images of visual arts and cultural heritage material currently available online in the UK. In addition to this, many of the collections had digital images available offline.

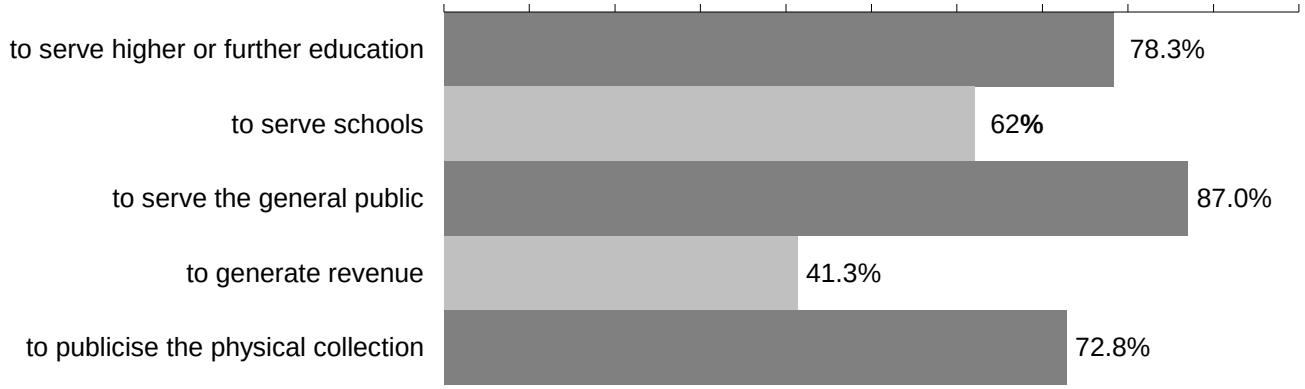
The majority of these collections (81.5% - 75 collections) were growing in size with more images being added, and about the same number (77 collections) modified their catalogue records over time.

37% of respondents had some limitation on access to their collection through passwords or some other method of authentication. This mainly included passwords to access a ‘lightbox’ or ‘album’ in order to bookmark particular images, or limitations on access to high resolution images. Some commercial image libraries allowed free access to thumbnail images without registration, and some only allowed access for registered users or paid subscribers.

Other limitations included: restrictions to certain territories due to licensing arrangements; access to sensitive, clinical images of disease in patients restricted to professional healthcare users; and access to some metadata restricted such as confidential addresses.

Collection Purpose

Q9: What is the purpose of the digital collection?



The collections that responded to the survey had a variety of purposes. As well as the options that were given above, a number of the respondents mentioned that the collection also served a preservation purpose, to reduce the handling of fragile materials by enabling users to access a digital surrogate. Other purposes included: informing conservation and listing officers, sculptors and researchers; to support the furniture industry and local/regional history; save staff time searching for images; as a source of further information for other published materials; for the museum, library and archive sectors; promote Britain as a tourist destination worldwide; as a marketing communications images repository; to aid and foster research on the collection; artworks provide evidence against Holocaust deniers; to make object information more accessible and useful; and to promote digital curation as good practice in the institution and to ensure the library has a role in supporting this.

Q10: If you have a remit for higher or further education, how is this currently satisfied?

The collections that had a remit for higher and further education served this role in a variety of ways, including: providing online learning and teaching materials; working with their host university on specific course modules developed to incorporate the collection; providing images free for all non-commercial uses; by providing search functionality designed for researchers and subject-specialists; by publicising the collection to HE establishments; through a dedicated education team at the museum who deliver sessions to all key stages and further education courses; by providing access to the physical collection; and through exhibitions, published research, and academic conferences.

Several of the public collections commented that they didn't have a specific remit for higher and further education, but catered to all ages.

Q11: If you generate revenue from the collection, how do you do this?

63 collections responded to this question. 46 mentioned that they charged fees for licensing their images. This included commercial uses such as publishing, broadcasting, advertising and use on merchandise, and a few collections mentioned that they waived charges or offered discounted fees for academic uses. Some collections licensed their images through a dedicated Picture Library service, or through websites such as the Bridgeman Art Library and the Mary Evans Picture Library. A few small museum and education collections commented that they didn't actively seek to generate revenue, and that the income they generated in this way was minimal.

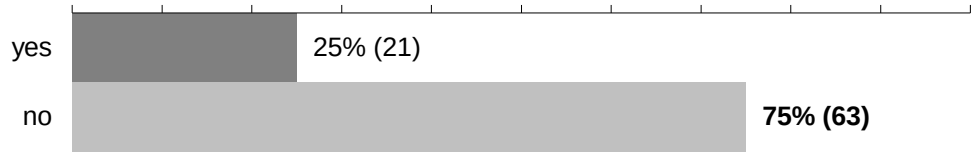
A few collections also operated a print-on-demand service or used other print services such as Printree and Media Storehouse. Several collections charged subscriptions, and for one education collection this covered a third of their costs and they were dependent on it for their sustainability.

Other means of generating income included ticket sales, retail, location filming and photography, consultancy and digitisation services to other heritage and higher education institutions, and lease of artworks of low value to other institutions.

Sharing Access

The final section of the questionnaire asked the participants what they thought about sharing access to their collections through mechanisms such as OAI-PMH. The issues were also discussed in meetings and phone interviews with representatives from several image collections (including SCRAN, the National Galleries of Scotland, Bridgeman Art Library, and Wellcome Images) as well as staff from aggregator projects (including the People's Network Discover Service, EDINA VSM portal, OCLC). For a list of people consulted during the project, see Appendix B. The responses to the survey questions and the issues that emerged are summarised below.

Q 12: Have you ever participated in any aggregator or cross-search services? (such as the People's Network Discover Service) Or experimented with any prototypes?



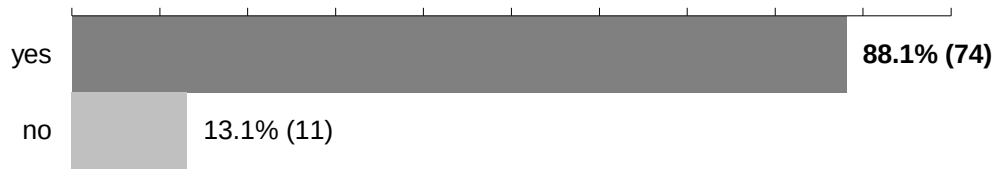
Summary: Most of the collections (75%) hadn't participated in any cross-search services or prototypes. The 21 collections that had shared their data with other services had done so through various different initiatives, including:

- through the People's Network Discover Service;
- through earlier interoperability pilots such as the PIXUS Project and MLA's Metasearch Project;
- by providing data to free and subscription-based educational services such as VADS, SCRAN and ARTstor;
- through the forthcoming National Museums Online Learning Project;
- through the Heritage Gateway, which cross-searches databases of historic environment records;
- through collection sharing schemes aligned to particular collection management systems (e.g. emuseum.net and Luna Insight);
- one collection was in negotiation with Global Grid for Learning;
- one collection had reciprocal harvesting arrangements with Picture Australia;
- one collection mentioned the use of RSS aggregators and Google Co-op;
- One respondent had done some experimental work bringing together their library, archive and museum databases using various javascript and php scripts[27].

A few collections mentioned that they were currently investigating possibilities for sharing their data, or were planning to make their data available to other services in the future.

[27] <http://www.huntsearch.gla.ac.uk/polyquery/>

Q 13: In principle, would you be interested in sharing the metadata from your collection with aggregator/cross-search services?



Summary: The vast majority of collections who completed the questionnaire were, in principle, interested in sharing their data with other services. 73 collections said yes, 10 collections said no, and one person ticked both options. The 73 who were interested in principle in sharing their data included a mixture of collections from large to small organisations predominantly from the education and museum sectors, but also a few collections from the commercial sector.

Q14: What barriers or concerns do you have about sharing metadata from your collection?

Respondents ranked each of the statements below on a scale of 1 to 5. The ranking that was chosen by the highest percentage of respondents is highlighted in bold text.

	Agree 1	2	3	4	Disagree 5
I would be concerned about the legal/copyright issues	**44.0% (37)**	17.9% (15)	16.7% (14)	7.1% (6)	14.3% (12)
I would be concerned about the look and functionality of any aggregator/cross-search services	**38.1% (32)**	28.6% (24)	19.0% (16)	9.5% (8)	4.8% (4)
We don't have the time and resources to implement and sustain this	**31.0% (26)**	25.0% (21)	28.6% (24)	9.5% (8)	6.0% (5)
We don't have the technical expertise in-house	**26.2% (22)**	22.6% (19)	20.2% (17)	17.9% (15)	13.1% (11)
Our catalogue data doesn't conform to a formal standard	13.1% (11)	15.5% (13)	**31.0% (26)**	23.8% (20)	16.7% (14)
I would be worried about losing control over the data	20.2% (17)	15.5% (13)	**31.0% (26)**	13.1% (11)	20.2% (17)

Legal and Copyright Issues

Summary: Legal and copyright issues seemed to be the strongest concern for collection providers. The largest number of people (44% - 37 collections) strongly agreed that legal and copyright issues could be a barrier to sharing their data.

A number of museum, gallery and education collections mentioned the problem of third party copyright. Whilst museums may own the copyright in their photographs of an artwork, the copyright of the artwork itself may be owned by someone else, and the museum has to negotiate with artists, artists' estates or other copyright holders in order to get permission to publish images of their works online.

Copyright clearance was a particular issue for one gallery which had a large proportion of contemporary and modern artwork, approximately two thirds of their collection, and this involved a great deal of administration negotiating with rights' holders. They commented that some artists didn't like to put their work online and were worried that it might be stolen, although the Web Content Manager felt that this was an unjustified paranoia and if someone really wanted to have an image then they could just scan a much higher resolution copy from a book.

Even if the collections have secured permissions to publish these images on their own website, several collections mentioned that these permissions may not extend as far as a sublicensing agreement. One collection mentioned that it may be possible for a properly accredited and duly mandated educational body to secure some kind of collective licensing arrangement with rights-holders representatives (e.g. DACS) in order to achieve the objectives of aggregation set out in the introduction of the survey, for a clearly delimited set of uses.

The issue of re-negotiating permissions was also raised in relation to commercial image collections which are already licensed for educational use through JISC Collections. The JISC Collections license doesn't cover the harvesting of metadata and thumbnail images to other services and if this was required, it would need negotiating with the individual collection providers.

Selected quotes:

"We are restricted to what we can put on the web by copyright issues with our more recent art works."

"Potential copyright ownership issues with the original creators of the artworks"

"Copyright restrictions, especially to third party material."

"Some photographs are still within copyright and permission does need to be ascertained before use."

"In some cases, an institution/publisher/author was unable to grant copyright. The entry remains on the Database with a link/reference to the original source although it cannot be reproduced on the Database."

"Images which are still subject to copyright are not displayed, however the accompanying text record can be shown."

"Some items have an embargo because of copyright, publisher's restrictions or other reason."

"Material still in third-party copyright is mostly restricted."

"We retain the IPR in our images (whether or not in copyright), controlling use by t&c and licences. The rights in some of the images on the website are owned by third parties."

". Copyrights to all resources are retained by the individual rights holders/institutions. Material is available for non-commercial private study & educational use. If someone wished to use images held on the website they must refer to the image owners for permission (One of my main roles in administrating the website is to re-direct enquiries to the appropriate owner)."

"The images are freely accessible but commercial use is restricted: we own copyright on the images (and text) and use of the images is subject to reproduction fees."

"The only real barriers to us making metadata available will be the legal/copyright issues. Technically, we are implementing a repository which will support OAI-PMH."

"There is always a concern about losing control of copyright when images are put into the hands of non-clients. Even when educated, there is a mentality to swap and give away images they have downloaded."

"We are very concerned about the copyright on our images as they are a revenue stream but not about the metadata."

"I have no worries about copyright, or loss of control; I don't feel copyright is as complex as people think (not in relation to images anyway) data in general is ours to share, so no worries over loss of control."

Look and Functionality

Summary: 38.1% of respondents strongly agreed that the look and functionality of aggregator services was of interest to them. Several collections felt that it was very important that any presentation of information looked good and worked well as their job is to showcase the visual arts.

Another collection raised the issue of academic specialities. They questioned whether people would want to look through millions of images if they are only interested in the visual arts or archaeology, and the aggregation should be the one that works best for the academic community.

Purpose

There were concerns not only about look and functionality, but also about the purpose of aggregators. A few people were sceptical about the benefits of sharing their data when their collections are already available as low resolution images for free on their own website. They couldn't see a strong argument for how an aggregator could increase access when their collection is already out there on the web, accessible by everyone from anywhere. Some staff from museum collections also questioned how an aggregator would differ from existing services such as SCRAN and VADS, and websites such as Artcyclopedia (which provides a searchable index of artists with links to their work on museum and gallery websites).

There was also some scepticism from a couple of collections who had either been involved in demonstrators in the past or knew of past projects that hadn't taken off. One collection joked that they knew of 59 aggregator projects that had taken place and they had been involved in 57 of them.

Another person couldn't see the value in lumping together lots of images from museum collections without contextual material. As they commented "these sorts of large scale projects have been done by large organisations like the BFI (Screenonline) and English Heritage (Heritage Explorer) in the past and what they revealed is that when you contextualise the stuff it's useful and when you don't, it doesn't attract an audience. I would want to know how the material was to be presented."

Staff from aggregator projects also mentioned that they found it difficult to persuade some collections to participate in prototypes without an existing website or service to demonstrate to them and more importantly, without evidence of its use and impact.

Selected quotes:

"We would need to see clear benefits to our users and the collections."

"Still not clear on what the user benefits are."

"Digitisation is fundamentally brilliant – but quantity and quality are not the same. A cut price Google for images from museum, archive etc collections is pointless. I already have Google. I want something that adds value."

Time and Resources

Summary: 31% of people strongly agreed that time and resources could be a barrier to sharing. A number of respondents pointed out that a great deal of time and cost is involved in digitising material, and only part of their collection is digitised and available online. One major gallery mentioned that 1700 works from their collection of 65,000 works were currently available online, and they estimated that it would take 60 years to put the entire collection on their website. They were also concerned about how their collection would look alongside other large collections, and felt that it may give the impression that this was all they have.

For institutional repositories in higher education, a lack of available image content is also an issue. The institutional repositories that took part in the survey mentioned that they had very few art and design images in the repository at present, either because the repository was at its early stages or they were dealing with text-based content in the first instance.

Two commercial picture libraries also mentioned the time and resources involved with getting material online, and that they would be encouraged to contribute their images for educational use if there was some remuneration for scanning.

Several people mentioned that sharing their image collection, or any web-related work, was far from being a priority at present. One university museum was committed to a major re-hanging of the collection in two years time. A small public museum mentioned that they are so bombarded with day to day enquiries, and with the demand for more and more displays that resource for this kind of work is never given any credence. They felt that this was an irony since getting the collection online would in fact sort out a lot of the former, and really help the latter.

Another issue for the commercials was whether sharing their data made any business sense and would attract significant image reproduction sales. As one commercial picture library commented, the higher and further education community is just a small section of their audience and they can't make money from art history alone. They did mention that they might consider sharing a subset of their images where the copyright was owned by them, and where there was some promotional aspect.

Selected quotes:

"Possibly, but far from being a priority at the moment."

"Probably the biggest obstacle would be that we do not have any staff time or expertise to devote to this so any initiative would be heavily dependent on external input – as was the case with the original project."

"Converting existing image data is an issue in terms of capacity – staff, principally."

"There is the issue that historic dress is difficult, time-consuming and costly to prepare for photography"

"As some of the staff are on a fixed term contract for the duration of the project, the museum is always needing to engage staff that may not have the skills to manage the exposure of the collection."

"It is unclear where staff resources for this project would come from. No resources = no project."

"Whilst the principle barriers are time and resources, there are also issues surrounding the organisation's priorities, and political issues surrounding not what you do, but what you are seen to be doing."

"Most institutions will not have resources to implement anything new at anything other than their own pace, so aggregators have to work with what is available, without presuming the ability to tinker with backends."

"Funding would be our main concern, as our project will shortly come to an end."

"We would like to have all these benefits but we are worried about the amount of technical work involved in generating material and metadata suitable for sharing. We do not have any resources to carry out such work at present."

"I'm not sure what time and resources would be required to implement and sustain this from our point of view."

"We are interested in making a contribution as well as benefiting from the service. However, we do not have specialist staff to organise and administer it and therefore we can only see it happening as part of a grant funded project."

"Our target audience is relatively specific rather than broad-ranging. Increased profile is not a key objective. The main objective is to complete digitisation of remaining manuscripts in the UK and worldwide, but we are finding it hard to get funding for ongoing digitisation."

"Much of our collection still needs digitising. If there was funding to make material available for educational use, and we could use the same scans commercially, this would be helpful and encourage us to be involved."

"No time, no resources. All thumbnail images and low resolution security marked images are viewable on our site at no charge."

"There is going to be an enormous amount of work on the huge image collections that will eventually form a part of our Digital Repositories. The foundations are currently being put in place…We're trying to work with repository owners to ensure interoperability and other efficiencies. Early days and it's a case of watch this space."

"We are currently at a stage where we don't have a collection online…I don't think many repositories are handling images. Cambridge might be worth a look as they have a lot of digitised material in their repository."

Technical Issues

Summary: 26% of the respondents strongly agreed that technical expertise could be an issue. A couple of respondents mentioned that they didn't have any technical knowledge of the website because they weren't involved in the original project; one small museum mentioned that they would seek the technical expertise from a partnership; another respondent said that they didn't want technical training; and another commented that they weren't interested in knowing about the technical solution. Some respondents weren't sure what was involved from a technical point of view so they felt they were unable to comment. One public collection mentioned that their data was hosted externally and they felt that this may constrain their ability to participate in such an initiative. They had limited control over the data and previous work on the site had been entirely dependent on external technical expertise.

Broadly speaking, the collections that gave technical issues a higher ranking in question 14 were mainly small and regional museums, libraries and archives, and some cultural heritage collections in higher education. National collections, several commercial collections, and several collections that had already participated in collection sharing projects were less concerned about technical issues.

The collections that had shared their data already had done so using various mechanisms, such as OAI-PMH, web service technology, Opensearch, RSS, or simply taking a data export. Both the EDINA VSM Portal and the People's Network Discover Service used various methods for aggregating data from collection owners. Discover uses OAI-PMH and an upload tool for content that is either static or very infrequently updated, or where setting up an OAI repository is unfeasible. EDINA used whatever method that the provider could offer, including harvesting, 'live' searching, and taking a data export.

Selected quotes:

"I will participate in anything that will promote the website. Though this may be difficult as I have no knowledge/understanding of the technical structure - so unless someone can take what they need without my participation this would be difficult."

"I would be interested in considering ways of making the collection more visible but I curate the physical collection and deal with enquiries arising from the digitised images. I am not involved in the digitisation or metadata processes and lack appropriate technical knowledge."

"We do not have experience of sharing metadata but we would be interested to have the scheme explained so we can participate."

"I believe that it is easier for small organisations to achieve results in almost any area if they work in partnership with other organisations. We have no technical expertise and would seek that from a partnership."

"We have a web project manager who can provide some guidance; plus I have a contact who can help with the odd technical glitch in the website; but where there are technical issues we really have no major resources to draw on."

"More interested in increasing use/raising profile than understanding the technical solution!"

"My feeling is that if I need technical training it's not doing its job effectively. I create and manage data, I supply it to others (such as Gallery Systems, or PCF, NICE projects) they seem to be able to use it without anything more than basic guidance from me. Hence I resist the urge to get too technical."

"Technical considerations are a potential barrier. We do not currently host the data ourselves and the current technical setup has raised some issues in exploring these issues in the past."

"Simplicity is going to be key here as regards our capacity to do this – we plan to do something like this using EXIF data in a project we are working on with EU partners."

Metadata

Summary: Respondents used a variety of metadata schemas, including Dublin Core, VRA, SPECTRUM, IPTC, DC.Culture, and e-GMS. A number of collections used their own schemas, many of which were adapted and extended from existing standards such as Dublin Core and VRA. The institutional repositories that took part in the survey hadn't tackled metadata specifically for images yet or were currently in the process of devising their metadata profile.

A few respondents were concerned that their metadata may not be adequate for searching in conjunction with other image collections. One collection mentioned that their searches worked well in house, but they were worried that they may turn out to be inadequate when exposed to the wider world and might suffer alongside other comparable resources, or else turn out to require some time-consuming re-working to make them consistent with other resources. Another respondent was unsure if they were using the fields in their database in the way that they are intended. Another museum collection also felt that their metadata was not in a suitable state; just before they started working at the museum, over 200 databases had been merged into a single database, and the data hadn't been normalised and it also contained duplicate records.

Whilst a few respondents were concerned that their data wouldn't be adequate, another collection was concerned that their complex home-grown metadata schema wouldn't be accommodated. They were concerned about mapping their complex data on to a much simpler metadata format used by an aggregator because of the loss of data and therefore loss of search functionality.

Benefits and Motivations

Q15: What would enable/encourage you to share your metadata?

The ability to reach new audiences and users and drive traffic to our site	92.4% (73)
Increased profile for our collection/organisation	93.7% (74)
The ability to shape the future directions of aggregator services	44.3% (35)
The involvement of national bodies such as JISC, MLA, BAPLA	65.8% (52)
The availability of technical training and support	60.8% (48)

The ability to use the content or functionality of an aggregator service on our own site	49.4% (39)

Summary: Out of the options given, the vast majority of people (over 90%) would like to reach new audiences, increase traffic to their site, and to increase the profile of their collection/organisation. They also commented that they wanted to serve audiences better, by enabling them to search by content and not by institution. One digitisation project in the education sector was currently undertaking evaluative workshops with a range of educational users which had already revealed the need to cross-reference their material with similar related resources and for connections to their database to be enhanced, and they felt that sharing their data with aggregators could be a way of doing this.

Other incentives mentioned included: the opportunity to form partnerships with other contributors to bid for funding for future project-based work; more people looking at their images and purchasing/licensing copyright on them; and the ability to generate revenue from the use of images in education.

Selected quotes:

"Would like to generate additional traffic to the site"

"Promote the collection to new users"

"To increase the audience for our collections"

"Expanding our audiences is a major objective."

"We are keen to make our holdings more widely known, and this may be the necessary path to such sharing"

"Increased profile for organisation"

"For public museums, the object data are largely (or should be) public property. Making them available for the widest possible use, including aggregation etc, can only be a good thing. Museums have the objects, and all such activities heighten the profile of the objects themselves and encourage their appreciation and use"

"As an organisation we are committed to broadening our audiences; increasing visitor numbers – this includes website visitors and increasing our profile"

"Opportunity to form partnerships with other contributors to bid for funding for future project-based work could be another incentive. However, I don't think we need a great deal of encouragement. Raising the institution profile is the most important of the choices given"

"I would like to see five or six of our own resources…aggregated locally on our own site (we have the technology to do this here). But then the next level up would be for people to visit your proposed aggregator, where they could see anything from our five or six collections and several hundred other ones you were pulling in from elsewhere. This would be a fantastic resource, and we'd be able to preserve a sense of our own collections and their boundaries on our website…"

"I think that JISC are after usage of the collections that they negotiate a deal for so if there's only one way in and it's a front page and you login, I think that's a shame"

"I think institutions want to make their content available because they want people to find out what good stuff they've got and ideally come and see it and use it"

"If it can meet the objectives of the library, protect the copyright, generate income from the use of the images within high education and meet our terms and conditions for supplying images, then in principle we could talk further."

"Would like to see JISC, MLA and BAPLA work together to improve all aspects of visual literacy and enable new workforces to be able to benefit from sight of visual material and interpretation"

"The involvement of national bodies can help weight and professionalism especially BAPLA who can help assuage some worries about copyright related issues."

"We would in principle wish to participate in any new partnership that could exploit existing resources and use them in novel ways. Any misgivings we might have can be ironed out through continuous improvement"

We're engaged in developing a cross sectoral data sharing and digital infrastructure platform in partnership with MLA, MDA and VisitBritain. We keen to work with JISC-sector orgs that are also interested in working with us…we're keen to see the development of metadata repositories, custom taxonomies and vocabularies, and ontological means to make links across sectors, subjects and audiences."

"We would be very concerned to do this in a way that required the minimum of effort, that allowed for evolution of content and standards, and was easily sustainable (in terms of funding and infrastructure) for at least a five-to-ten year period. We would also like to see an infrastructure which recognised and encouraged respect for creators' rights, and facilitated beneficial transactions between end-users and rights-holders."

"Please hurry up. PictureAustralia has been going since 1998 and we are ten years behind…!"

Caveats

A few caveats should be noted about the findings in this report. Firstly, some organisations have several different departments or members of staff with responsibility for their image collections (such as Web Teams, Picture Libraries, Documentation Managers, Curatorial staff) with different priorities and areas of expertise. In many cases, the questionnaire was only completed by one member of staff in an organisation and their views may not be a fair representation of the whole organisation.

This survey found a great deal of interest and enthusiasm in the idea of sharing, with 88.1% (74 collections) interested in principle in sharing access to their data. However, this statistic should be treated with some caution. It's likely that some organisations who weren't interested in sharing their data didn't see any point in responding and didn't fill in the questionnaire.

One or two people commented that they didn't understand the terminology used in the questionnaire, and this may have deterred others from completing it. Some people also commented that it was difficult to respond to the survey accurately without more information about what would be involved and felt they could only give neutral answers to some of the questions.

Conclusions

- The majority of respondents, including a number of subscription-based and commercial collections, said part of their remit was to provide image resources for educational purposes, including for formal HEIs, schools and colleges, and more general public educational consumption.
- Notwithstanding commercial and subscription-based image providers, several respondents from small institutions felt there was little leverage in actually making profit from their image collections by licensing them for commercial purposes.
- The general consensus was that most aggregator projects haven't taken off and haven't attracted a large user base.
- There was some feeling that end-users were unlikely to be attracted to large, potentially unrelated, difficult to cross-search image collections, simply because there were potentially a greater number of images to choose from, and that aggregators should be subject-led.
- To date, most respondents had not taken part in sharing initiatives but 88% (74 collections) were willing to explore this in future.
- Copyright was the most frequently expressed concern amongst collection owners.

- Marketing and publicity were given as a major reason for collections being willing to participate in sharing their data in the expectation that it would draw new potential traffic to their websites.

- Technical concerns are less of an issue amongst larger image collections. Smaller collections showed the most concern regarding technical expertise, and many felt unable to contribute to sharing on the basis that it would cost them money and time to outsource technical expertise.

- While most people used a recognised standard schema such as DC or VRA, Spectrum and ITPC, or at least customised one as a basis for their schema, respondents felt that the way in which they used the data would differ quite markedly from other collections ostensibly using the same schema.

- Thus cross searching between collections in a systematic and managed way would be impossible without further enhancement made to data.

Recommendations

- More user research and consultation is needed to identify users' specific needs and to ensure that the development of aggregator services is properly user-led.

- Rather than setting up new services to aggregate image data, established image collections – that already have a known user base – would seem the most appropriate place to start.

- Larger image collections could partner with small institutions that can fill gaps in their coverage, and provide small institutions with the technical support for sharing their content.

- More consideration and investment should be made into the marketing of collection sharing initiatives, with clear evidence of how they can benefit collection owners and fulfill their educational remit.

- Collections need clearer advice and strategies to deal with the IPR issues with sharing their content. This is currently being considered as part of the Strategic e-Content Alliance IPR Consultancy Project. [28]

- There is a need to research ways of enhancing metadata for cross-search purposes, such as the use of taxonomies and folksonomies.

[28] SCA Blog, 'Shaping the Future forum: Naomi Korn and Charles Oppenheim: SCA IPR Consultancy workplan', 21 February 2008. <http://sca.jiscinvolve.org/2008/02/21/shaping-the-future-forum-naomi-korn-and-charles-oppenheim-sca-ipr-consultancy-workplan/>

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Appendix A: Related Projects

Europeana

Europeana is the European digital library, museum and archive, and is a two year project that began in July 2007. The project will produce a prototype website giving users access to some two million digital objects, including film material, photographs, paintings, sounds, maps, manuscripts, books, newspapers and archival papers. Europeana is funded by the European Commission under the eContentplus programme, as part of the i2010 policy, and the prototype will be launched in November 2008. The project plans to use the OAI harvesting approach to aggregate content from national portals and other content providers across Europe, using simple Dublin Core metadata.

People's Network Discover Service

The People's Network Discover Service offers one-stop access to over 600,000 item records from a range of libraries, museums and archives, as well as providing access to collection level records, relevant newsfeeds and web links. The service was developed by the MLA with funding from the Big Lottery Fund and was launched online in 2005. Most item-level data comes in via OAI, and a data upload tool is also available for content that is either static or very infrequently updated, or where setting up an OAI repository is unfeasible. The Discover metadata set, developed by UKOLN, is Dublin Core based and enables searching by 'who', 'what', 'where' and 'when'. Some content providers were given funds in order to undertake the necessary work to make their data available to the service. The People's Network Discover Service will be joined together with other MLA websites including Cornucopia and MICHAEL, as part of the Culture24 family of websites. MLA also plans to feed content from the Discover Service into the Europeana portal and the BBC Centuryshare prototype developed with the Strategic Content Alliance.

National Museums Online Learning Project

This three year project is being developed by nine national museums and galleries, including the British Museum, Imperial War Museum, National Portrait Gallery, Natural History Museum, Royal Armouries Museum, Sir John Soane's Museum, Tate, Wallace Collection, and the Victoria and Albert Museum (which is the lead partner). The project is funded by the Invest to Save Initiative from the Treasury, and is due to launch in March 2009. The target audiences for the project are schools and lifelong learners. The intention is not to create a new website or portal but to get the existing collections on these national museum and gallery websites better used through the creation of online learning resources which will be distributed across the partners. The project has also conducted an investigation into federated searching technologies (including OAI, SRU and OpenSearch). A federated search prototype has been developed with three of the project partners. Whilst OpenSearch does not provide the same possibilities as SRU or OAI at the level of advanced searching, the project decided to use OpenSearch as it is lightweight, easy to implement, and gave all the functionality needed for the project.

Museum Collections Sharing Working Group Project

In 2007, the Getty Trust used OAI to transfer two collections from the Getty Museum and the Getty Research Institute to the ARTstor Digital Library. While OAI requires Dublin Core descriptions as a lowest common denominator, the Getty dataset was augmented by records in the new CDWA Lite XML specification. CDWALite was first published in 2006 and is a simplified version of the Categories for the Description of Works of Art (CDWA) – a metadata standard developed for communities that provide and use art information. The Museum Collections Sharing Working Group Project has been led by OCLC, and

includes participants from nine US museums as well as the Courtauld Institute of Art and the Victoria and Albert Museum in the UK. The purpose of the working group is to investigate an implementation of CDWA-Lite XML and OAI harvesting as pioneered by the recent J. Paul Getty Trust/ARTstor collaboration. The OCLC project has developed open source software based on the original modifications made by Getty, which allows museums to share descriptions of collection items in CDWA-Lite as well as pointers to digital surrogates.

Museum Data Exchange Study

OCLC received a grant in 2008 from The Andrew W. Mellon Foundation to further develop standards for museum data exchange. This study aims to create a low-barrier/no-cost batch export capability out of the collections management system used by some of the participating museums, as well as a test of data exchange processes using OAI harvesting. The test will create a large research aggregation of museum records, which will be analysed to determine in which areas museums should invest in upgrading their records, and in which areas automated processes can be utilised to harmonise descriptions for retrieval. Museums participating in the project include the Metropolitan Museum of Art; the Museum of Fine Arts, Boston; the National Gallery of Art; Princeton University Art Museum; Yale University Art Gallery; Victoria and Albert Museum; and the Cleveland Museum of Art. Participating museums will also discuss the evidence about the relative utility of the aggregation with stakeholders from the museum, vendor and aggregator communities. VADS has been asked to contribute to the analysis of the research aggregation which will take place later this year.

National Collections Online Feasibility Study

This project is led by a consortium including the Victoria and Albert Museum, the National Maritime Museum, the National Museum of Science and Industry, Culture24 and the National Museum Directors Conference. The study is being undertaken by Flow Associates, who are consulting with the project partners and other experts though one-to-one interviews, workshops, and online discussion. Their brief was to undertake a feasibility study that will consider the viability of an online resource integrating national museum collections. The study is intended to address the issues of disaggregated collections spread across several legacy systems and websites in the UK, to identify ways forward to help users to explore collections in more seamless and personalised ways. The aim is to move forward with an approach that will be both practical and accessible to all sizes of institution. The study is due for completion in July 2008.

EDINA Visual, Sound and Media Portal

The aim of the VSM portal scoping study and demonstrator project was to investigate the value and feasibility of a national portal for both time-based media and image collections dedicated to the needs of the further and higher education communities, and based on the recommendations of the JISC PIXUS project. The project was undertaken between 2005 and 2007 by EDINA with funding from the JISC portals programme. Content providers included: Archaeology Data Service (ADS), British Geological Survey, Education Image Gallery, Film & Sound Online, Newsfilm Online (NfO), Open Video Project, SCRAN, Spoken Word, Teachers TV, and VADS. Data was provided using various methods including OAI-PMH, Z39.50, or taking a data export.

BBC Centuryshare

The Strategic e-Content Alliance is a three-year initiative funded by JISC, with partners including the BBC, Becta, the British Library, the MLA, the National e-Science Centre and the NHS. Its aim is to build a

common information environment where users of publicly funded e-content can gain best value from the investment that has been made by reducing the barriers that currently inhibit access, use, and re-use of online content. The SCA is working on case studies, tools and "real world" exemplars and pilots which demonstrate the principles and potential of the alliance, such as the BBC Centuryshare pilot. The purpose of the BBC Centuryshare pilot is to promote interoperability by gathering data from organisations and displaying it. The project plans to analyse the data and augment it with further information added by users and professionals. The intention is to present the information on a timeline, similar to the BBC's Memoryshare website, and to launch in March 2009.

Intute Repository Search Project

Over the past few years JISC has made a major investment in Higher Education repository and digital content infrastructure. JISC has also funded the Intute Repository Search Project to develop facilities for searching across repositories in UK universities. The beta search can find descriptions from over 166,000 working papers, journal articles, reports, conference papers and other text-based works, from across 83 UK academic e-print repositories. Whilst at present there are very few image collections in institutional repositories and the dominant collection focus is on e-prints and e-theses, there are now several JISC-funded projects underway to develop repositories specifically attuned to the requirements of images and time-based media, such as the KULTUR, Storage Space, and SAFIR projects. JISC has also commissioned the development of an Images Application Profile for describing images in institutional repositories, and the Intute Repositories Search Project intends to include image searching within its remit in the future.

Appendix B: Interviews

We are grateful to the following people who discussed this case study with us in more detail:

- Pandora Mathers-Lee, Bridgeman Art Library
- Nadia Arbach, Bridgeman Art Library
- Christine Rees, EDINA
- Rick Loup, EDINA
- David Dawson, MLA
- Phill Purdy, MLA
- Tessa Quinn, National Galleries of Scotland
- Shona Corner, National Galleries of Scotland
- Günter Waibel, OCLC
- Graham Turnbull, SCRAN
- Neil Fraser, SCRAN
- Catherine Draycott, Wellcome Images

Appendix C: Questionnaire

Introductory Information

In 2005, the JISC Images Working Group set about formalising its vision for the future provision of digital images in UK higher and further education. In doing so, it consulted widely with the digital image using community, through studies such as the CLIC (Community-Led Image Collections) Study, and the Digital Picture Survey.

The result of this work has been the development of a vision for images in education based around the idea of a "virtual reservoir of images" or "national network of images" - a joining up of the mass of image resources which are often hard-to-find, scattered across unconnected websites.

Rather than creating a single, central repository for digital images, the model that was proposed by these studies is based on some level of interoperability between digital image collections, via metadata cross-searching or aggregation, through methods such as the Open Archives Initiative for Metadata Harvesting (OAI-PMH).

Some of the advantages of this model include:

- Collection owners maintain control over their metadata and images, which they host, alter and update on their own servers
- Aggregators can provide links back to the individual collection websites for delivery of the original images
- Aggregators could reach new audiences and users and drive traffic to the collection site
- An aggregator could perhaps enhance and promote collections in novel ways, e.g. utilising Web 2.0

What are we trying to find out?

- What are the issues associated with sharing and aggregating metadata from digital image collections in the art and design sector?
- What are the collection providers' attitudes to metadata aggregation/cross-searching?

Who should complete the questionnaire?

The questionnaire is for the maintainers or owners of digital image collections in the art and design sector, including universities, colleges, museums, not-for-profit organisations, and commercial image libraries.

Who is conducting this research?

This study is being carried out on behalf of the Joint Information Systems Committee (JISC) and the Higher Education Academy, by the Visual Arts Data Service (VADS).

Contact: VADS, University College for the Creative Arts, Falkner Road, Farnham, Surrey GU9 7DS, United Kingdom.

Email: info@vads.ac.uk

Data Protection Notice

You are requested to state the name of the organisation you represent, your name, email address, and the name of your collection and its web address.

A list of the collections/organisations who participated in this study will be released with the report, but we will not release the names of the individuals who respond to this survey.

We intend to publish the results of this study in such a way that it is not possible to identify a single organisation/collection's responses to any of the questions.

Questionnaire

Collection Details

Please complete the following details about the collection:

Organisation name:

Title or name of your collection:

Collection website:

Name of contact person for the collection:

Job title:

Email address:

Brief description of the collection:

Roughly how many images are in your online collection at the moment?

Is this number static or growing?

- ☐ Static
- ☐ Growing

Do you use a standard metadata schema (e.g. VRA, CDWA, Dublin Core)?

- ☐ Yes
- ☐ No

If yes, please specify

Do you renew/modify the catalogue records over time?

☐ Yes

☐ No

Is there any part of the collection which is restricted by password access or any other method of authentication?

☐ Yes

☐ No

If yes, please give details

Are there any legal restrictions to access?

☐ Yes

☐ No

If yes, please give details

Collection Purpose

What is the purpose of the collection? (Please tick all that apply)

- ☐ To serve higher or further education
- ☐ To serve schools
- ☐ To serve the general public
- ☐ To generate revenue
- ☐ To publicise the physical collection
- ☐ Other (please specify)

If you have a remit for higher or further education, how is this satisfied?

If you generate revenue from the collection, how do you do this?

Sharing Access

Have you ever participated in any aggregator or cross-search services? (such as the People's Network Discover Service)
Or experimented with any prototypes?

☐ Yes

☐ No

If yes, please give details of the technical mechanisms you've used

In principle, would you be interested in sharing the metadata from your collection with aggregator/cross-search services? (including URL references to thumbnail images)

☐ Yes

☐ No

Please give reasons

What barriers or concerns do you have about sharing metadata from your collection?

- I would be concerned about the legal/copyright issues **Agree** ☐ ☐ ☐ ☐ ☐ **Disagree**
- I would be concerned about the look and functionality of any aggregator/cross-search services **Agree** ☐ ☐ ☐ ☐ ☐ **Disagree**
- We don't have the time and resources to implement and sustain this **Agree** ☐ ☐ ☐ ☐ ☐ **Disagree**
- We don't have the technical expertise in-house **Agree** ☐ ☐ ☐ ☐ ☐ **Disagree**
- Our catalogue data doesn't conform to a formal standard **Agree** ☐ ☐ ☐ ☐ ☐ **Disagree**
- I would be worried about losing control over the data **Agree** ☐ ☐ ☐ ☐ ☐ **Disagree**

Further comments on this

What would enable/encourage you to share your metadata?

Please tick all that apply:

- ☐ The ability to reach new audiences and users and drive traffic to our site
- ☐ Increased profile for our collection/organisation
- ☐ The ability to shape the future directions of aggregator services
- ☐ The involvement of national bodies such as JISC, MLA, BAPLA
- ☐ The availability of technical training and support
- ☐ The ability to use the content or functionality of an aggregator service on our own site

Further comments on this

Comments

Please use the box below to add any further comments about the issues raised in this questionnaire:

Would you be happy for us to contact you to discuss any of the issues raised in this questionnaire in more depth?

☐ Yes

Would you like to be informed of the results of this study?

☐ Yes

End of Questionnaire

Appendix D: Respondents

Advertising Archives	www.advertisingarchives.co.uk
akg-images	www.akg-images.com
Fashion Museum	www.fashionmuseum.co.uk
Belfast Exposed Photography	http://www.belfastexposed.org/archive/index.php
BMAGIC, Birmingham Museums & Art Gallery	www.bmagic.org.uk
British Cartoon Archive, University of Kent	http://library.kent.ac.uk/cartoons/
British Council	http://collection.britishcouncil.org/html/home/home.aspx
Buckinghamshire County Museum	www.buckscc.gov.uk/museum
Cambridge University Library	http://www.lib.cam.ac.uk/digital_image_collections
Central Saint Martins Museum and Study Collection	http://courses.csm.arts.ac.uk/museum
City of London Corporation	http://collage.cityoflondon.gov.uk
City of York Libraries	www.imagineyork.co.uk
Corpus of Romanesque Sculpture in Britain and Ireland	www.crsbi.ac.uk
Crafts Study Centre, University College for the Creative Arts	www.csc.ucreative.ac.uk

Culture24	www.24hourmuseum.org.uk
davidgill.co.uk	http//www.davidgill.co.uk/attica
Devon Library and Information Services	www.devon.gov.uk/localstudies
Domestic Interior Database, Royal College of Art	www.rca.ac.uk/csdi/didb/
Dulwich Picture Gallery	www.dulwichpicturegallery.org.uk
Eaglecrown Productions Ltd	www.eaglecrown.com
East Lothian Museums Service	http://www.eastlothianmuseums.org/
English Heritage National Monuments Record	www.english-heritage.org.uk/viewfinder
Fashion Museum	www.fashionmuseum.co.uk
The Fitzwilliam Museum	http://www.fitzmuseum.cam.ac.uk
Freshwater Biological Association	www.english-heritage.org.uk/viewfinder
Constance Howard Material Collection, Goldsmiths, University of London	www.goldsmiths.ac.uk/constance-howard
Guildford House Gallery	www.guildfordhouse.co.uk
High Wycombe Furniture Electronic Archive, Bucks New University	Available March 2009
Historical Photographs of China, University of Bristol	http://chp.ish-lyon.cnrs.fr
The History of Advertising Trust	www.hatads.org.uk
Hunterian Museum and Art Gallery	http://www.huntsearch.gla.ac.uk

Imagebank, University of Reading	www.reading.ac.uk/imagebank
Imaging the Bible, University of Wales Lampeter	not yet available
Imperial War Museum	http://collections.iwm.org.uk/
International Dunhuang Project at The British Library	http://idp.bl.uk
Iris, Loughborough University	www.irisphoto.org
The John Rylands University Library, The University of Manchester	http://rylibweb.man.ac.uk/insight/rylands_coll.htm
Lambeth Archives/LB Lambeth	www.lambethlandmark.com
Lambeth Palace Library	www.churchplansonline.org
Land of Lost Content	www.edu.lolc.co.uk
Leicestershire County Council Heritage Service	www.leics.gov.uk/Collectionsonline
London Borough of Lambeth	www.ideal-homes.org.uk
London College of Fashion, University of the Arts London	http://vads.ac.uk/collections
Maidstone Museum & Bentlif Art Gallery	www.maidstone.museum.gov.uk
Manchester Metropolitan University Special Collections	www.specialcollections.mmu.ac.uk
Manuscripts and Special Collections at The University of Nottingham	http://www.nottingham.ac.uk/mss/online/visual-resources/
Marischal Museum, University of Aberdeen	www.abdn.ac.uk/marischalmuseum
Mary Evans Picture Library	www.maryevans.com

Media Zone - Museums, Libraries and Archives Council	not yet available
Museum of Design in Plastics (MoDiP), Arts Institute at Bournemouth	www.aib.ac.uk
National Fairground Archive	www.sheffield.ac.uk/nfa
National Maritime Museum, Collections Online	www.nmm.ac.uk/collections
National Maritime Museum, Picture Library	www.nmmimages.com
The National Archives	http://www.movinghere.org
National Museums Northern Ireland	www.magni.org.uk
National Portrait Gallery	www.npg.org.uk
The New Art Gallery Walsall	http://wag.adlibsoft.com/
New Hall Art Collection, University of Cambridge	www-art.newhall.cam.ac.uk
Norfolk Museums and Archaeology Service	http://museums.norfolk.gov.uk/default.asp?Document=300
North Devon Museums Forum, North Devon on Disk	www.northdevonondisk.org.uk
Public Monuments and Sculpture Association	www.pmsa.org.uk
Revolutionary Players, Birmingham Museums & Art Gallery	www.revolutionaryplayers.org.uk
Robinson Library Special Collections, Newcastle University	http://www.ncl.ac.uk/library/specialcollections/collections/daguerreotypes/
Roman Baths Museum & Pump Room	romanbaths.co.uk
Royal Academy of Arts	www.racollection.org.uk

Royal Borough of Windsor and Maidenhead	www.thamespilot.org.uk
Royal Geographical Society with IBG	http://images.rgs.org/
Scholars Resource	www.scholarsresource.com
Scott Polar Research Institute	www.spri.cam.ac.uk/library/pictures/
Sea Your History Project, Royal Naval Museum	http://www.seayourhistory.org.uk
SHIMMER, Sheffield Hallam University	http://catalogue.shu.ac.uk/screens/shimmer.html
Show Gallery, Royal College of Art	www.rca.ac.uk/showgallery
Spellman Collection, University of Reading	http://www.reading.ac.uk/library/special-collections/collections/lib-special-spellman.asp
Southampton City Art Gallery	www.southampton.gov.uk/art
Staffordshire Arts & Museum Service	www.staffspasttrack.org.uk
Tate	www.tate.org.uk
UCL Library Services Digital Collections	http://digital-collections.lib.ucl.ac.uk
Oxford University Research Archive (ORA)	http://ora.ouls.ox.ac.uk
Victoria and Albert Museum	images.vam.ac.uk
VisitBritain	www.britainonview.com
The Wallace Collection	www.wallacecollection.org
Wellcome Images	http://images.wellcome.ac.uk

Werner Forman Archive Ltd	www.werner-forman-archive.com
Wessex Archaeology	http://www.flickr.com/photos/wessexarchaeology
Wolverhampton Arts and Museums Service	www.wolverhamptonart.org.uk/collections
The Women's Library, London Metropolitan University	www.thewomenslibrary.ac.uk
World ORT	http://art.holocaust-education.net/
York Digital Library, University of York	http://www.york.ac.uk/library/elibrary/digitallibrary.htm