

HUMSLIDES ON FLICKR: USING AN ONLINE COMMUNITY PLATFORM TO HOST AND ENHANCE AN IMAGE COLLECTION

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Introduction

The teaching of Classics is heavily dependent on the examination of artefacts, with images having an important pedagogical impact – they ‘enhance learning, by illustrating concepts and providing visual memory cues’.¹ Academics and departments often have large collections of 35mm slides which have been the traditional medium for teaching and research. Since this format, along with associated projection equipment, is no longer manufactured, educators and researchers have had to seek alternatives. In response to this the School of Humanities at King’s College London set up a pilot project (*HumSlides*) using the holdings of the Classics and the Byzantine and Modern Greek Departments to create a digital image resource for online delivery available to teachers, students, and researchers. This chapter builds on what was learned from that pilot project and suggests a way forward. It also questions the broader implications for collaborative environments and user interaction within an image-based pedagogical framework.

Digital media have almost completely taken over from traditional slide-based delivery systems and offer new potential opportunities and benefits. Students no longer have to be content with images only being briefly displayed in the lecture hall and in fought-over, specialist library books which are beyond their budgets. Images are now available over the web and via institutional networks to be downloaded and saved into personal collections on laptops and other portable devices. High-quality digital images can be enlarged to examine detail not possible in a print publication and the growth of online resources enables and indeed encourages the incorporation of images in numbers simply not feasible in the print medium.² Many other disciplines such as palaeography, manuscript studies, and library studies use images to support teaching and research and so the model that develops should be of benefit in many other areas.

¹ See JISC Digital Media guide, ‘Using images in learning, teaching and research materials’ <<http://www.jiscdigitalmedia.ac.uk/stillimages/advice/using-images-in-learning-teaching-and-research-materials/>>.

² An online publication is not limited in the number of images it includes in the way that a print edition is. For an example and a discussion of this and the possibilities for widening access to online resources for Classics see: G. Bodard, ‘The inscriptions of Aphrodisias as electronic publication’, *Digital Medievalist* vol. 4 (2008): <<http://www.digitalmedievalist.org/journal/4/bodard>>.

With the advent of the web, digitization – particularly that of large image collections and libraries – was looked to as the way forward and a solution to problems of distribution, access, and archiving.³ The JISC Image Digitization Initiative (JDI) was set up specifically to manage digitized images for use in teaching and learning, making it ‘the first large-scale multi-site and multi-foci digital imaging project undertaken in the United Kingdom’.⁴ However, an awareness of the potential new threats and problems posed by digital technology alongside the new opportunities it offered, particularly in the face of the rapid technical changes, had been recognized early.⁵ Much discussion of digital preservation centred around the possibilities afforded by emulation and migration as alternative approaches.⁶ The new possibilities opened up by digital media brought new problems such as cost, storage, changing technologies, and copyright, which all need to be addressed (these are discussed below in relation to the *HumSlides* case study).⁷ Image hosting sites such as Flickr offer more affordable alternatives to costly server infrastructure and many libraries and archives have joined *The Commons* there.⁸ In doing so they now also have the added advantage of possibilities to engage and build a community of users and to harness them to enhance the collection.⁹

The HumSlides pilot project

Funding was secured from KCL’s College Teaching Fund to create a resource for teaching and learning, with the digitization of slides taking place over the summer of

³ For example see: S. Lee, ‘Scoping the future of the University of Oxford’s digital library collections, final report’, (Oxford 1999) [accessed 2nd September 2011]: <www.bodley.ox.ac.uk/scoping/final.doc>. This report notes the many image and document archives set up at Oxford: Beazley Archive, Bodleian Broadside Ballads Project, Celtic and Medieval Manuscripts, Centre for the Study of Ancient Documents, *et al.* See also M. Deegan and S. Tanner, *Digital futures: strategies for the information age* (London 2002) and S. Lee, *Digital imaging, a practical handbook* (London 2002).

⁴ S. Ross, *Image digitisation management models: an assessment of the JIDI programme* (Glasgow 2000) [accessed 2nd September 2011]: <<http://eprints.erpanet.org/96/>>.

⁵ For a full exposition on this and the need for safeguards: ‘Preserving digital information: report of the task force on archiving of digital information’, (OCLC Research 1996) [accessed 2nd September 2011]: <<http://www.oclc.org/content/dam/research/activities/digpresstudy/final-report.pdf>>.

⁶ For discussion contemporary to this project see for example B. Lavoie, *The incentives to preserve digital materials: roles, scenarios, and economic decision-making* (OCLC online 2003) [accessed 2nd October 2012]. Available at: <<https://www.oclc.org/resources/research/activities/digipres/incentives-dp.pdf>>

⁷ For example JISClegal has been set up to provide guidance as the complexities of copyright are often a deterrent to setting up a digitization project: <<http://www.jisclegal.ac.uk/LegalAreas/CopyrightIPR.aspx>>.

⁸ See the section: *The Commons* and n. 31 below.

⁹ For more on non-professional contributions and their potential see: M. Terras, ‘Digital curiosities: resource creation via amateur digitization’, *Literary and Linguistic Computing* 25.4 (2010) 425-38.

2005. This involved the bulk-scanning of over 6,000 35mm slide transparencies using 4,000 DPI resolution and 24 bit RGB colour into archive quality uncompressed Tiff files; after archiving, these were further processed into working copies as JPGs and then into upload copies at a more manageable size (most between 1 and 1.5 MB).¹⁰ Also necessary was the collection of data taken from the slides and their containers, along with spreadsheets completed by the contributors.¹¹ Images were typically accompanied by a caption, some description (depending on data sheets completed by the contributors), tags (keywords), and other metadata elements all of which were searchable.¹² The amount of descriptive data varied considerably but to be included images needed to have at least a caption. It is not possible to include screen shots of the *HumSlides* images (as they are password protected) but, as well as a high resolution digital image with zoom function, all contained the following metadata:

- Slide Number (unique ID for that slide);
- Caption (a simple title for the image);
- Location (physical geographical location of the subject of the image at the time that it was taken; additional data about findspot and provenance could be included in the 'description' field);
- Century (to allow broad searching; a more precise date could be added to the description field);
- Course related (code for the course(s) for which the slide would be used);
- Description (descriptive detail about the subject and content of the image);
- Keywords (main keywords to describe the content);
- Creator (person that took the slide photo, if known);
- Source Provenance (where the image came from, in as much detail as possible);
- File ID (unique ID for that image file, which allows a link between spreadsheet and image file)

The project was implemented using a proprietary software package (ContentDM) supplied freely for a limited time by OCLC PICA.¹³ All fields were hyperlinked and so any word clicked would bring every other occurrence of that word in the collection.

One major problem with this slide collection was that of uncertain copyright and the consequent need to restrict access. The majority of slides in the departmental holdings

¹⁰ For good discussion about appropriate file sizes and resolution see: M. Terras *Digital images for the information professional* (Farnham 2008) chapter 4.

¹¹ Enriching the data and funding details are covered below.

¹² The Dublin Core was chosen as a widely used and accessible metadata standard: <<http://dublincore.org>>.

¹³ A cooperative union between the Online Computer Library Center and the PICA Foundation: <<http://www.oclc.org/news/releases/200677.htm>>.

For more on OCLC as it is now see: <<http://www.oclc.org/uk/en/default.htm>>.

ContentDM was at that time the OCLC content management system for libraries and collections online: <<http://www.oclc.org/?id=1101&ln=uk>>.

were legacy material with no clear provenance, as well as many taken by the College Audio-Visual service from popular teaching books. This raised the issue of user rights and the need to restrict access, which was not possible with this management system other than by limiting users by IP address and restricting access to the College network.¹⁴ The insistence on having the collection password protected, with a staff or student login required for access, was ultimately one of risk management rather than any legal requirement as, once images are online, there is nothing except for the copyright notice to prevent any user downloading and distributing these files as they wish.¹⁵ Arguably this restriction greatly reduced the uptake and usefulness of this new digital image collection.

The difficulty here, as is often the case, is in attempting to apply copyright management retrospectively. In the transition from an analogue to a digital medium, what is acceptable as 'fair use for academic and educational purposes' for a 35mm slide transparency or the photocopied page of a teaching book is not acceptable in the new electronic medium. The potential for the use of these images changes when they are converted from analogue to digital and, unlike the 35mm slide, once they are distributed all control over their future use is lost. Also notable was the dual attitude of some of the slide contributors where they wished to see copyright-covered material made freely available to them and yet were unwilling to include material for which they themselves held the copyright.¹⁶

User study

To evaluate the usefulness of the resource, academic staff and students were sent a questionnaire after the project had been live for a complete academic year. Four lecturers replied and each was followed up with a semi-structured interview. No response from any student was received.¹⁷ The next task is to consider these user studies from the pilot project: what we can learn from those and how might those findings be fed into a new resource? Another pertinent point to consider here is the distinction between the different needs of the various user groups: the teachers and the students/researchers.¹⁸ The tutor would be looking for suitable images to support their pedagogical aims and may or may not have a specific image or subject of an image in mind. The student may be looking for suitable ones to include as evidence to support their essays, and the researcher for

¹⁴ The decision to restrict access was necessary from the College's perspective to avoid any possibilities of copyright infringement. Although a selection process was built into the workflow to reject images that were clearly from published sources, it was possible that some images with uncertain provenance would slip through.

¹⁵ For more on this see L. Hughes, *Digitizing collections: strategic issues for the information manager* (London 2004) chapter 2.

¹⁶ A future project might insist on applying Creative Commons licences; see: <<http://creativecommons.org/>>.

¹⁷ Note also that not all lectures are supported by images, particularly those that are language and literature based.

¹⁸ These were the intended users, although opening up the collection would then make it more widely available and include schools and the public.

something new and perhaps unexpected. From the information collected it was possible to make several observations based on the user responses and these are broken down in the following sub-headings:

*Metadata:*¹⁹ finding an image was often easy enough but, once found, they were often not suitable for use by the lecturers, as they lacked sufficient accompanying data. This raises additional issues around what might be termed ‘user seeking behaviour’ with a focus on the browsing habits of academics.²⁰ For the academic supplying the image, who already knows the importance of the subject and content, the return for the time spent filling out the datasheets which generate the descriptive data is minimal. The accompanying data that was available made things easier to find but accentuated the difficulties when insufficient. More and richer metadata was needed to make this resource more useful. In fact, its usefulness as a resource is wholly dependent on the metadata.²¹ What was unclear from the respondents was the type of additional metadata that they thought would be needed to improve the resource and they clearly focussed on discovery metadata, although data for long-term preservation of the images themselves is equally important. It would seem that from their perspective, the most important addition would be more descriptive metadata; that would make appropriate images easier to find by using selective keyword searching, and, once found, users would have a better understanding of the context and importance of the subject of the image.

Usage: the pedagogy employed by lecturers (particularly in the study of material culture) required a wide mix of image materials and many of their own were often sourced from books. *HumSlides* provided a good source of high quality images (unlike most that they found on the web)²² but lecturers needed teaching sets that covered their whole module and so needed to go beyond this collection.

Pedagogy: to be of use the images needed to be integrated into the module teaching materials and cover the whole module. In addition, students needed to be shown why they would need to use this resource. This might best be achieved by embedding the use of the image resource into their coursework. A workable solution would be to set formative tasks

¹⁹ The term ‘metadata’ here refers to the information that accompanies each image such as, caption, description of the image, keywords, provenance, *etc.* See the Dublin Core for an example of a widely used metadata standard: <<http://dublincore.org/>>.

²⁰ See for example: D. Nicholas, P. Williams, I. Rowlands, and H. Jamali, ‘Researchers’ e-journal use and information seeking behaviour’, *Journal of Information Science* vol. 36 no. 4 (London 2010) 494-516. A variety of case studies looking at the way in which humanities scholars search and make use of both analogue and digital resources are part of the research conducted by the Humanities Information Practices at the Oxford Internet Institute, University of Oxford: <<http://www.oii.ox.ac.uk/research/projects/?id=58>>.

²¹ For a full discussion of the importance of attaching metadata to images see M. Terras, *Digital images* (n. 10 above) chapter 7. See also Visual Arts Data Service (VADS), Creating Digital Resources for the Arts: Standards and Good Practice, 4.3: ‘Resource discovery metadata and the Dublin Core’: <http://vads.ahds.ac.uk/guides/creating_guide/sect43.html>.

²² This refers to the images that the lectures could generally source on the web rather than what is available there. Examples of good quality online images are below.

requiring the students to investigate chosen images and enrich the descriptive metadata themselves.

Accessibility:²³ as already noted, much of the collection consisted of inherited slides with the provenance long-since forgotten and so, because of potential copyright issues, access to *HumSlides* was restricted to the KCL IP address and thus only available onsite via the King's network. Users were unable to use images from this resource off-site without the images being downloaded in advance. This was particularly problematic for intercollegiate graduate modules which were often taught at the Institute of Classical Studies.²⁴

Further conclusions can be drawn from observation and feedback rather than the survey. The content of the image collection is heavily influenced by staff as they hold the slides, know which ones there are, and will be biased towards their own requirements. It was notable that the coverage was limited with, surprisingly, history and topography being better covered than archaeology, despite the latter's focus on materiality.

It cannot be emphasized enough that it is the metadata that makes an image collection useful (and will ensure its long-term survival) as this data allows the user to search not only for what they know exists but with serendipity for that welcome and unexpected result that they were not expecting.²⁵ This only happens if the metadata is extensive and sufficiently rich such that it describes all the content of the image and not just the main focus and interest of the academic that submitted the slide. For example: an epigrapher would be interested in the inscription but may, in their description and keywords, ignore any detail of the object inscribed which might be of immense interest to other researchers such as architectural historians, archaeologists, and indeed, if the epigraph was a literary text, then also literary scholars. What needs to be considered is the possibility not only of categorizing the images and their content but also of categorizing the possible types of interest in that image.

With regard to copyright issues, there was a clear difference in response from staff who had submitted sets of slides and those who had not. Those that had submitted teaching sets (generally the more established staff members who had a better knowledge of the departmental collections) were aware of the images that had been excluded (for copyright concerns or for lack of accompanying metadata) and focussed on those. Newer members of staff did not have the same concerns and commented on this collection being a good source of quality images. They focussed on what was available rather than on what had been excluded (presumably they were not aware of the excluded slides).

As for the use of the collection in teaching: students are strategic learners and for them to use this type of material it needs somehow to be incorporated into teaching. Lecturers

²³ The term *accessibility* is used here to mean the barriers that prevent the images from being viewed and downloaded rather than issues from the point of view of disability and W3C compliance (for basic W3C guidelines see: <<http://www.w3.org/TR/WCAG10/>>) which relate to the image management and delivery system and are beyond the scope of this chapter.

²⁴ For example the many modules taught between King's College London, UCL, Royal Holloway, and the Institute of Archaeology.

²⁵ The image-management software allowed searching by any word in any of the text fields. Hence searching for 'Augustus' would return any image whose metadata included the word 'Augustus' as a keyword, in the caption, or description of the image.

were using a variety of materials: as well as images from *HumSlides* they had their own digital images, some taken from the web and also some which they had scanned or photographed from books. Staff saw the benefits of an online digital image collection as they all acknowledged the difficulties with slides. The projection equipment was problematic and they often could not get hold of the images they wanted, particularly if they were locked away in the office of a colleague. This project made images more accessible and reliable and hence encouraged their use in teaching. However, rather than changing the way in which images are used, this project changed the way in which users would like to employ images by making them more aware of the possibilities.

The question now is how we might learn from this experience and create a more useful resource. First, let us look at what else is out there to see what other pertinent initiatives there are to draw on.

*Some other online image initiatives*²⁶

*OxCLIC*²⁷ is a HEFCE-funded,²⁸ image-management project at Oxford, using images from the department of the History of Art, and the faculties of Classics, Archaeology, and Oriental Studies, to store images and metadata in a distributed system using Open Source software. One of the stated aims was to set out to 'provide guidelines on how image material held by individual academics and material held in departmental collections might be combined and made available in a web-based environment'.²⁹

OxCLIC uses MDID (Madison Digital Image Database).³⁰ The project organizers highlight the need for clear metadata conventions across the collections, particularly when the source material is held in different departments. In practice, the terms used to describe objects and their attributes varies across disciplines (and sometimes even within the same one) making some type of standardization necessary. These ideas and the use of taxonomy or controlled vocabulary are familiar to librarians, cataloguers, and anyone having to apply a structure to their data and consistently define their terms. It was found essential to develop a standardized set of useful contextual data for the digital image.

²⁶ This list is not intended to be definitive and there are other popular online image resources such as *ARTStor* <<http://www.artstor.org/index.shtml>> which are not included here as they are not directly relevant.

²⁷ For more on *OxCLIC* see their Public Wiki at: <<http://wiki.oucs.ox.ac.uk/ltg-public/OxCLIC>>.

²⁸ Higher Education Funding Council for England: <<http://www.hefce.ac.uk/>>.

²⁹ *OxCLIC* Annexe B Summary Report (10/05/07).

³⁰ MDID is an Open Source digital image database (available at SourceForge: <<http://sourceforge.net/projects/mdid/>>) developed at the James Madison University to host image collections primarily used for teaching and the study of art and history: <<http://www.lib.jmu.edu/resources/more.aspx?id=1560>>.

More details of MDID are on the JISC pages at:

<<http://www.jiscdigitalmedia.ac.uk/stillimages/advice/image-management-madison-digital-image-database-mdid/>>.

The Commons,³¹ ('[y]our opportunity to contribute to describing the world's public photo collections') was a pilot project set up on Flickr in partnership with The Library of Congress (LoC) and launched in January 2008 with two main stated aims: to increase exposure to current content held in public institutions worldwide and to facilitate the collection of general knowledge about these collections. What is particularly interesting here is the extent to which this collaborative project has grown. Starting with the LoC and being quickly joined by The Powerhouse Museum (Sydney), the partner institutions grew in number almost monthly, such that a talk I gave on online image collections in the summer of 2008 listed eight and, at the time of writing, they now number sixty-four, including the National Archives UK, the National Maritime Museum, the Imperial War Museum Collections, and the National Library of Scotland.³²

Another significant point is that for *all* these image collections, visitors are 'invited to help describe the photographs [they] discover [...] either by adding comments or leaving tags'.³³ The user community is being encouraged to enrich the resource by adding additional data in the form of comments and tags as well as annotating the images themselves by adding 'notes' that can be attached to specific areas within the image. Further, all these images may be freely viewed and downloaded in a variety of resolutions up to and including the original. Images can be arranged and organized in 'favourites' or 'galleries' (personal sub-sets of images) and displayed individually or by using the built-in slideshows.

Any internet user is able to search, view, and download images in *The Commons* and to access the tags, description, and annotations. To be able to add data to the images and arrange personal sets of 'favourites', users need to be logged in to their Flickr account and thus identified by their Yahoo! details.³⁴ User accounts are either 'free', which allow users to upload 100MB of images per month into a single collection, or 'Pro' (\$24.95 per year at the time of writing), which allow unlimited image upload, storage for archiving, multiple collections, as well as aggregated statistics of page views, referrers, and user activity on the account.³⁵

The Commons has a general umbrella 'Rights Statement' outlining copyright issues and how the images may be used.³⁶ As well as this there is a link to the individual 'Rights Statement' for each of the collections of the partner institutions. For example, the one for the LoC takes you to their own webpage for 'Copyright and Other Restrictions' for their

³¹ *The Commons* <<http://www.flickr.com/commons/>>.

³² For a full up-to-date list see 'Participating Institutions': <<http://www.flickr.com/commons/institutions/>>.

³³ 'Welcome to *The Commons*': <<http://www.flickr.com/commons/>>. 'Comments' may be added to a discussion box beneath the image similar to those used in a blog. 'Tags' are a collection of 'keywords' listed adjacent to the image and when clicked will return all other images that share the same tag. Random testing shows that when logged into a Flickr account it is possible to add tags and comments freely, although one might expect some type of moderation (after they have been added) to avoid abuse.

³⁴ Flickr is owned by Yahoo! and so this identifies users.

³⁵ Flickr account details are described at: <<http://www.flickr.com/help/limits/>>.

³⁶ Details of *The Commons*' 'Right Statement' and links to individual statements for each participating institution are at: <<http://www.flickr.com/commons/usage/>>.

Kaiser and his Generals (LOC)
 Bain News Service, publisher.
 Kaiser and his Generals
 [between ca. 1910 and ca. 1915]
 1 negative : glass ; 5 x 7 in. or smaller.
Notes:
 Title from unverified data provided by the Bain News Service on the negatives or caption cards.
 Forms part of: George Grantham Bain Collection (Library of Congress).
Format: Glass negatives.
Rights info: No known restrictions on publication.
Repository: Library of Congress, Prints and Photographs Division, Washington, D.C. 20540 USA,
hdl.loc.gov/loc/pnp/pp.print
 General information about the Bain Collection is available at hdl.loc.gov/loc/pnp/pp.ggbain
Higher resolution image is available (Persistent URL): hdl.loc.gov/loc/pnp/ggbain.19148
Call Number: LC-B2-3484-14

License
 No known copyright restrictions [?]

Privacy
 This photo is visible to everyone

Tags (add a tag)
 Library of Congress • Postcard • Postkarte • 5090 • Germany • WWI • Neue Photographische Gesellschaft • NPG

[Show machine tags \(2\)](#)

Flag this photo

Figure 1: an image from the LoC collection on The Commons showing the accompanying metadata below the image and the searchable tags and link to the licence statement to the right ('No known copyright restrictions' with links to both LC and Flickr statements). Image accessed 10th September 2012.

<http://www.flickr.com/photos/library_of_congress/7949427746/in/photostream>

Prints and Photographs Reading Room.³⁷ Further, within the collections, each individual image in Flickr has a 'Privacy' notice and is accompanied by a 'License' statement that again links to the institutions policy document.³⁸ The statement of rights and permissions for use as they apply to each collection are clearly stated for the user.

All these institutions are making use of their user communities to enrich these online collections by adding additional data in the form of tags, comments, and annotations. They also give users the right to download the full resolution image files and (in most cases) permission to re-use their material for non-commercial purposes providing it is appropriately attributed.

³⁷ Library of Congress Prints & Photographs Reading Room notice on copyright and restrictions: <http://www.loc.gov/rr/print/195_copr.html#noknown>.

³⁸ They can be restricted to 'friends' only as we will see later.

Issues raised by The Commons on Flickr

The intended audience for these collections is not the same. *HumSlides* and *OxCLIC* are aimed at students and academic staff and expect their collection to be used for teaching and research, whereas *The Commons* is aimed at the general public. However *The Commons* raises immediate questions about why these partner institutions are, firstly, allowing random users to interact with and add content to the data that accompanies their online image collection and, secondly, why they should be giving away their precious images freely. Judging by the rapid expansion of institutions joining, it would appear that there are definite benefits.

From the Library of Congress report on their Flickr pilot it seems that, although they were already a pioneer in digitizing their photo collection, there was little public awareness of that fact.³⁹ This initiative had significantly aided the discovery and use of their collections and subsequently raised the public profile of this already prestigious institution. They had increased the awareness of their image collections by reaching new audiences, which seems to have been their purpose. In addition, they had made use of and sourced the knowledge of the user community:

Flickr members also have offered corrections and additions by identifying locations, events, individuals, and precise dates. This data is often supported by accompanying links to articles from the *New York Times* archive, Wikipedia, and subject-specialized websites. After verification by Library staff, information provided by the Flickr community is incorporated into our catalog records.⁴⁰

Additional reasons given for the success of the project include the support they received from the online Flickr community. They asked for help, which clearly seems to have appealed to Flickr users, as did the fact that their image collection satisfied the desire for high-quality content without copyright restrictions.⁴¹ Another important consideration is the additional weighting given to images in Flickr by the major search engines (Flickr is owned by Yahoo!), making them easier to find and at the same time helping to raise the online profile of the image supplier.

The report admits some initial reservations from sceptics, particularly in the area of the possibility of ‘fake facts’ and ‘uncivil discourse’, but notes that: ‘[i]ncreasing the ability to engage and connect with photos increases the sense of ownership and respect that people felt for these photos’.⁴² As a result of the pilot they ‘gained a deeper understanding of how users want to interact with [...] the collection. The benefits appear to far outweigh the costs and risks.’⁴³ They had taken what had been a perceived risk and benefited through increased awareness and exposure of their collections as a result.

³⁹ Library of Congress blog on the release of the Flickr pilot report: <<http://blogs.loc.gov/loc/2008/12/library-releases-report-on-flickr-pilot/>>. The full report is at: <http://www.loc.gov/rr/print/flickr_report_final.pdf>, and the summary: <http://www.loc.gov/rr/print/flickr_report_final_summary.pdf>.

⁴⁰ ‘For the Common Good: the Library of Congress Flickr Pilot Report’ (summary), p.5: <http://www.loc.gov/rr/print/flickr_report_final_summary.pdf>.

⁴¹ For extensive analysis of the tags and comments added by users see: ‘For the Common Good: the Library of Congress Flickr Pilot Report’ p.25: <http://www.loc.gov/rr/print/flickr_report_final.pdf>.

⁴² ‘For the Common Good’ (n. 41 above) 25-26.

⁴³ ‘For the Common Good’ (n. 41 above) 36.

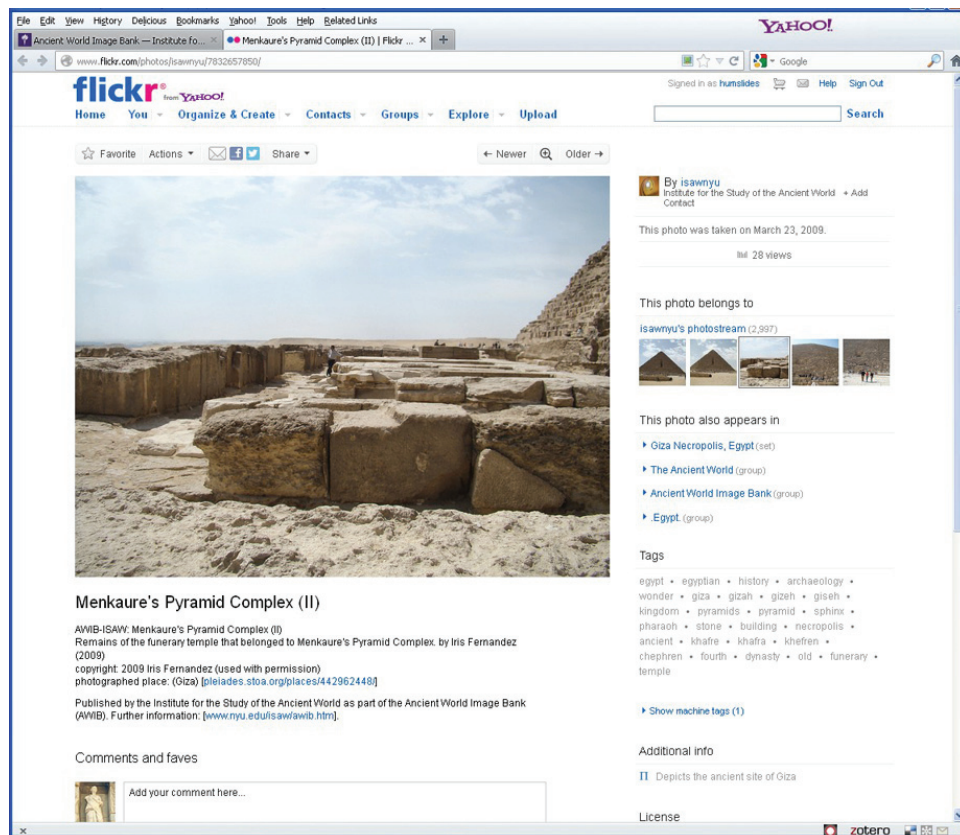


Figure2: an image from the AWIB collection on Flickr with description, copyright (C.C. BY 2.0), and publication details below; and searchable tags to the right. Image accessed 10th September 2012. <<http://www.flickr.com/photos/isawnyu/7832657850/>>.

*Ancient World Image Bank*⁴⁴

Another online image collection using Flickr is the *Ancient World Image Bank (AWIB)* at the Institute for the Study of the Ancient World (ISAW), New York University. Their opening statement describes this as:

[...] a collaborative effort to distribute and encourage the sharing of free digital imagery for the study of the ancient world. Beginning with the slide and digital photography collections of ISAW faculty, staff and affiliates, *AWIB* will expand to publish imagery donated by others as well.⁴⁵

After testing in late 2009, this collection began to publish full image sets on Flickr in April 2010 under Creative Commons (CC) Attribution 2.0 Generic licence, which means that users are free to download, copy, share, and adapt the work, providing they attribute

⁴⁴ *Ancient World Image Bank*: <<http://www.nyu.edu/isaw/awib.htm>>.

⁴⁵ *AWIB*: <<http://www.nyu.edu/isaw/awib.htm>>.

the work in the manner specified.⁴⁶ Clicking an image on the *AWIB* webpage takes you straight to that image on their Flickr photostream.

All users can search, view, and download these images in a range of resolutions, including the original size, but to add comments you must be signed in to a user account (this is standard for Flickr images). However, unlike contributors to *The Commons*, *AWIB* has chosen not to allow Flickr account holders to be automatically able to add 'tags' to the existing list or 'notes' (annotations) to the images.

The *AWIB* occupies a different space in the sphere of publically available image collections in that it sits within a larger framework of online resources for ancient world studies. The images hosted there are currently from the collections of ISAW faculty, staff, and affiliates, although they do plan to extend this to publishing images that are donated, presumably by their user community, at a later stage. It is anticipated that it will soon participate in *Concordia*⁴⁷ which is an initiative to 'link up separately published online resources for ancient studies', as well as integrate with *Pleiades*⁴⁸ a digital gazetteer of historical geographic information and an electronic successor to the *Barrington atlas*. For this reason the options for user-generated content are more restricted, although it should be noted that the *Pleiades* project is developed by interaction with its community, using, creating, and sharing historical geographic data about the ancient world.⁴⁹

Other relevant collections

An important initiative that draws on the user community to enrich its collection by tagging is the BBC's *YourPaintings* project⁵⁰ which was developed in collaboration with the Public Catalogues Foundation. This has gathered together and published online images of all publically owned paintings in the UK. As well as being given some information, after registering, viewers are invited to add tags relating to the content of the images, which then become searchable by keyword, greatly increasing their accessibility.

There are other popular online image resources such as *ARTStor*⁵¹ which is a widely used subscription service now developing *Shared Shelf* image management system to allow users to upload and manage their own digital images. However, because of space limitations, further discussion here is restricted to those already mentioned above.

⁴⁶ For Creative Commons see: <<http://creativecommons.org>>.

For details of this specific CC licence see: <<http://creativecommons.org/licenses/by/2.0/deed.en>>.

⁴⁷ *Concordia*: <<http://concordia.atlantides.org>>.

⁴⁸ *Pleiades*: <<http://pleiades.stoa.org>>.

⁴⁹ See 'The *Pleiades* Community':

<<http://www.atlantides.org/trac/pleiades/wiki/PleiadesCommunity>>.

⁵⁰ *YourPaintings*: <<http://www.bbc.co.uk/arts/yourpaintings/>>.

⁵¹ *ARTStor*: <<http://www.artstor.org/index.shtml>>.

Cost implications: content management software versus an online community platform

Digitizing an image collection, whether that is 35mm slide transparencies, photographic prints, or whatever, has a cost element that can be calculated: equipment, staff hours, metadata collection, upload, *etc.*⁵² The *HumSlides* pilot used the ContentDM management system which was supplied free of charge by OCLC for a limited time and the hosting was on existing departmental project servers.⁵³ *OxCLIC* made use of the Open Source package MDID which, although available freely, still has substantial costs involved in development and hosting. The hidden cost is that of the infrastructure necessary for hosting the resource and, regardless of whether content management software is proprietary or Open Source, there is still a considerable financial cost.

The HEFCE funding to *OxCLIC* in 2005 came to £56,270 and, although the largest expense was staff costs, approximately £16,000 was allocated for capital costs and software development, with an additional £12,000 for the Academic Computing Development Team (together making about half the total cost).⁵⁴

The Library of Congress notes that their ‘investments were relatively minor’ and that ‘no staff members were ever assigned to work full time on this project’.⁵⁵

HumSlides on Flickr

When the licence for the ContentDM software expired in 2008, questions arose about how we could extend the life of this image collection, improve its usefulness, and take it forward as a resource. We had the digital images (more than 6,000), we had the metadata that needed to be enriched and we had the views of the existing user community; however, we had no funding. Using Flickr we had possibilities for a web-based interactive system for both delivery and collaborative annotation of these images. A Flickr Pro account was set up which allowed an unlimited number of images to be uploaded in an unlimited number of ‘collections’ and ‘sets’. ‘Collections’ would equate to the academics who had originally submitted collections of their slide holdings for digitization and ‘sets’ would be arranged around individual ‘teaching sets’ as required.

The Pro account was an administrator account for uploading the images and data, and setting the permissions. A series of free accounts were also set up for submitters (academic accounts for those that had contributed slides for scanning) and for general

⁵² *HumSlides* was originally funded in 2004 from the College Teaching Fund Competition (£24,900) as a project to digitize slides for teaching and learning.

⁵³ The server infrastructure required for any hosting service has a cost implication and should not be entered into lightly. *HumSlides* was hosted on existing servers used for funded projects at the Centre for Computing in the Humanities at King’s College London.

⁵⁴ With thanks to Charles Crowther for details of the *OxCLIC* set-up costs.

⁵⁵ ‘The Common Good’ (n. 41 above) 9. They further identify 222 hours of technical programming over a six-month period (with a breakdown of details which includes testing) and 160 total staff hours on ‘non-technical tasks’.

users.⁵⁶ These user accounts were necessary as the College was still unwilling, because of possible copyright issues, to allow the images to be open. Permissions were set to restrict access to ‘friends’ by adding the user accounts to the ‘friends’ list of the Pro account.⁵⁷ Thus, by limiting the login details (which would be changed routinely) of the user accounts for staff and students, access to the images and the ability to add additional information was likewise restricted to staff and students.

During this set-up time we were fortunate to have the help of three student interns. One researched the Flickr setup and support pages, while the other two, by desktop and book research, enriched the metadata (held in spreadsheets) by adding significantly to the keywords and descriptive information, where it existed, and supplying some where it was absent. This followed the findings of the user study and in addition allowed many more images to be included.⁵⁸

The manual uploading of this quantity of images and accompanying data is clearly impractical and the LoC had surely automated the process. This is where a software developer is needed. Flickr has an open Application Programming Interface (API) which enables it to interact with other software by exposing its functionality and allowing it to be programmed against. We had to develop a bulk upload tool to associate the metadata with the appropriate images (by adding the image file name as a field in the data spreadsheet) for uploading. In addition, after creating a user interface, the tool needs to allow the Pro account holder to authenticate the login through Flickr, locate the spreadsheet and associated images, and initiate the upload process.⁵⁹

The *HumSlides* images in Flickr are displayed with the data (mapped to the Dublin Core) placed underneath and the keyword ‘tags’ listed alongside.⁶⁰ Permissions were set so that ‘academic’ account holders would be able to edit the descriptive data beneath each image and upload additional ones. Any user, once logged into a *HumSlides* user account, will (as in *The Commons* model) be able to add additional ‘tags’, comments’, and annotations in the form of ‘notes’.⁶¹ This means that students as well as academics can add additional data. Participating academics are able to correct any errors found or add to the data by notifying the owner of the Pro account, who is automatically notified of activity on the *HumSlides* collection. These images are restricted to the user community. This expression is used purposefully as that is what we are doing here – building a user community, a community that will sustain and enrich this resource.

⁵⁶ Several ‘user’ accounts were set up as it was not known how the system would respond to multiple simultaneous logins. After testing we found that Flickr did allow several people to log in at the same time using one account.

⁵⁷ This is analogous to social software sites only allowing people from a fixed list of ‘friends’ to access certain information.

⁵⁸ With acknowledgement and thanks to Silvia Cinnella, Rebecca Collins, and particularly Greta Franzini.

⁵⁹ With many thanks to Payman Labbaf for the development of the bulk upload tool we used.

⁶⁰ This is a simplified set of data taken from the pilot to match the Flickr display: Slide Identifier, Caption, Description, Location, Century, Department, Submitter, Rights and Restrictions.

⁶¹ Note that only after logging into a *HumSlides* user account are you able to access the *HumSlides* on Flickr images.

Allowing this interaction was intended to extend considerably the functionality of the original project. Users now had the ability to add their own thoughts and to comment on the content of the images, as well as adding additional data in the form of tags and annotations. We had the opportunity to build a user community that would be able to enrich this resource further. Lecturers could create their own teaching sets within *HumSlides* and students and researchers could gather together their own collections of ‘favourite’ images to support their studies. These images could now be embedded in teaching activities by setting students tasks surrounding specific images, or ones that they found for themselves.⁶² In addition, the geographical features made available by Flickr open up additional possibilities by encouraging the creation of maps and bringing together images by location.

The essential user-research stressed as a requirement by JISC⁶³ had been drawn on, as had *OxCLIC* and *The Commons*. It is true that a login was still needed, but the collection was now available from any internet connection and not limited to the College network. The metadata had been considerably enriched and extended with more than 1,000 additional images now included. Why, then, had there been no reported activity and no corrections forwarded or further image sets uploaded?

The user statistics built into the *HumSlides* Pro account show that in twenty-four months after being set up only 261 of the images had ever been viewed (many would have been for testing and research for this chapter), none have been put into ‘favourite’ sets (with the exception of one used to test that feature) and none have been geotagged. No comments have been added, although eighteen images have been ‘tagged’ (again several of these would have been from testing the system). No corrections for any errors in the descriptive data (dates, location, content, *etc.*) have been sent to the author. Neither have any notifications of activity in the *HumSlides* collection been received at the Pro account. In short, two things are clear: firstly, that the images in the collection are not being viewed and certainly have not been incorporated into any task-based learning and, secondly, that the features that improve functionality and access through using Flickr as a platform are not sufficient to encourage its use.

If the online image collection, which is based on teaching sets from an academic department, is not being used, then how do we account for this? The answers are complex. One of the major issues raised in the pilot user study was that the collection was not available from anywhere other than the institution’s network, whether password protected or not.⁶⁴ The second phase of the project hosted on Flickr *is* available from anywhere with an internet connection by using a generic user login, but it is still not *open*. The stumbling block is the large number of digital images from scanning legacy-collections of slides where the provenance is long forgotten. Attempting to apply copyright retrospectively is simply not possible and, to be open, the collection must start with source material for which copyright is held, or at least known, and with permissions secured. With this in

⁶² For example, students could be asked to identify specific iconography used in mosaics or the attributes associated with heroes or gods.

⁶³ JISC, ‘Using images in learning’ (n. 1 above).

⁶⁴ Note that many areas of King’s webpages are not publicly viewable but require an institutional login when off-site.

place there should be no need for the password requirement and, with the agreement of the copyright holders, the images can be freely distributed.⁶⁵ This collection (in suitable copyright-free form) would benefit greatly from being openly available on the web without the need for any login. In addition, there would seem to be a general lack of awareness of the image collection and it needs to become part of the routine toolkit of the teaching staff, acknowledged as such, and promoted to the students. Students, if not staff, are very familiar with so-called Web 2.0 applications and social media in general and there are many pedagogical possibilities, such as setting students tasks as already mentioned.⁶⁶ The students as well as teaching staff need to be encouraged to use these collections for their projects and research, and any barriers to their use need to be lifted.

HumSlides 2.0 on Flickr: a possible next phase

The current *HumSlides* iteration is not being used, sitting as it does behind a password, and with no apparent promotion to the potential user community. It currently holds more than 4,000 slides digitized into high resolution image files stored on an online and low-cost community platform. Of those original slides, many were taken by the academic contributors on field and research trips, and are clearly identifiable as such from the content of the images, as well as from the original data taken at the time of collection. To ensure that all contributors received their slides back correctly, an inventory was kept of the boxes, trays, and sheets that the slides came in, along with a record of anything and everything written on the containers and the slides themselves.⁶⁷ For example, a box labelled 'Rome 1992' containing slide images of monuments in Rome would presumably be images taken on a trip to Rome by that contributor in 1992. It is generally clear to see from the content of the images and their arrangements in sets which ones had been taken by the academics themselves. Guidelines were given to contributors asking for slides for which either they or King's held the copyright and prioritizing those used for teaching in the coming academic year. However, in practice, with the numbers involved it was often

⁶⁵ This is of course not only the case with digital images but with any copyright-protected material. A comparative example would be in re-purposing teaching materials from a class-based module to an e-learning programme distributed via a VLE (Virtual Learning Environment) such as Blackboard or Moodle. If the e-learning programme is conceived and constructed as such from the start then all copyright can be cleared and, where necessary, paid for in advance. Again the problems arise when attempting to apply copyright retrospectively. It is simply not possible and is a clear barrier to re-purposing teaching material for online delivery.

⁶⁶ By the term 'social media' I mean online communication platforms which allow the user to create and exchange content with the platform and other users. Flickr is an example of such a platform.

⁶⁷ Trust was an important issue here, persuading the holders of the slide collections to part with their precious and guarded material. Guidelines for collection, handling, and return were in the original documentation which also named this author, who had been both an undergraduate and research student in that department and so known to them (and presumably considered trustworthy). An inventory was kept of each slide container (each with a unique identifying code attached), when it was collected, from whom, and when returned.

not practicable to make a selection prior to scanning, but rather to exclude images at the QA (quality assurance) stage post-processing.⁶⁸

The next phase then might be to solicit agreement from the contributors who submitted images that were clearly taken by them and so have no copyright implications (other than their consent) to have their images made publically available on Flickr.⁶⁹ There may also be the possibility of enrichment by machine tagging with geolocational data imported from *Pleiades* and perhaps also *Pelagios*.⁷⁰ This would then form the core on which we could build an open and freely available image collection, to which we would invite other institutions and individuals to contribute. This would be contingent on their agreement to a policy of open access under an appropriate Creative Commons licence and being prepared to supply the necessary metadata in an agreed format.

Further, adopting *The Commons* model pioneered by the LoC, users could be encouraged to enrich the data by adding tags, comments, and annotations to the images.⁷¹ We then employ the user community in an activity that has become known as ‘crowdsourcing’.⁷² The LoC admitted (understandably) to having some initial reservations about this and,⁷³ in the introduction to their final report, asks: ‘Could the Library tap the knowledge and energy of the user community to augment its own efforts?’, and: ‘What’s the quality of the information gained through crowdsourcing?’⁷⁴ The answer must surely lie in the fact that, after the completion of the pilot project, the LoC collection on Flickr has grown considerably, as have the number of institutions that now participate in *The Commons*. To quote from the ‘Recommendations and Conclusions’ of their report:

Ten months into the pilot, the question looms whether to move from pilot project to program. Performance measures documented in this report illustrate how the project has been successful in achieving the objectives and desired outcomes of the Library’s strategic goals. The Flickr project increases awareness of the Library and its collections.⁷⁵

⁶⁸ All images were surveyed for file size and optimization as well as image quality and it proved easier to exclude suspect images at that stage (on a monitor screen) rather than scrutinize a 35mm slide on a light-table.

⁶⁹ To an extent this is already the case as, once these images are on Flickr, there is nothing to prevent any user downloading and distributing these image files as they wish, except for the rights and restrictions notice attached to each one. The difference is that responsibility for copyright would now be removed from the institution and so there would be no insistence on password protection.

⁷⁰ Pelagios: <<http://pelagios-project.blogspot.co.uk/>>.

⁷¹ Because of the way Flickr is set up the tags link to all tags with the same character string. What would be particularly interesting would be to see how the ‘comments’ and ‘annotations’ could be used as a means of building links between images and what kind of links they would turn out to be.

⁷² Referred to by name, ‘crowdsourcing’ is what is taking place with the LoC and other image collections in *The Commons*. (‘For the Common Good’ [n. 40 above] 1). See also: n. 75 below.

⁷³ ‘For the Common Good’ (n. 41 above) 36.

⁷⁴ ‘For the Common Good’ (n. 41 above) 1.

⁷⁵ ‘For the Common Good’ (n. 41 above) 33.

And further:

At the start of the pilot, critics pointed out several risks often expressed as questions. Experience so far has not borne out their concerns. The skeptics wondered: Would the public conversation contribute to a better understanding of the photos or would fan mail, false memories, fake facts, and uncivil discourse obscure knowledge? [...] Since the Library first launched its account the public has allayed many of the misgivings by lauding the rapid access to interesting photographs that could be enjoyed and used without restriction. News media complimented the Library for making publicly held information widely and freely available and also praised our openness to participatory cataloging. Fellow cultural heritage organizations quickly began to join Flickr's Commons because 'taking the pictures to the people' resulted in reaching large new audiences.⁷⁶

In addition they report that this increased 'ability to engage and connect with photos' gives an increased 'sense of ownership and respect [...] for these photos'.⁷⁷ Importantly also, that they have 'gained a deeper understanding of how users want to interact with [...] collections'.⁷⁸ Public engagement has also helped them to understand how they might manage interaction with their users:

in ways that are less formal without diminishing the reputation of the institution; how to reconcile the inevitable loss of control over content with the recognition that we can significantly increase the reach of that content if people can access and interact with it in the communities in which they participate.⁷⁹

It seems unsurprising, then, that their recommendation was to move from a pilot phase into an expansion of this activity and of engagement with their user community as 'the benefits appear to far outweigh the costs and risks'.⁸⁰ Having said this, we need to be mindful of the cost and staffing implications. Although this was minimal for an organization such as the LoC, it could still be a potential burden for an overstretched Classics department or Institute.

Another successful example of crowdsourcing is to be seen at the Victoria and Albert (V&A) Museum's 'Search the Collections' initiative.⁸¹ Here (after setting up an account) users are improving the collection by selecting the best 'crop' of an image from a selection to maximize the user experience. At the time of writing, the website shows that more than 35,000 objects have been processed in that way. They also note an additional spin-off benefit from working with the public as gaining 'insight' into their 'users' views and preferences'.⁸²

⁷⁶ 'For the Common Good' (n. 41 above) 35.

⁷⁷ 'For the Common Good' (n. 41 above) 35.

⁷⁸ 'For the Common Good' (n. 41 above) 36.

⁷⁹ 'For the Common Good' (n. 41 above) 35.

⁸⁰ 'For the Common Good' (n. 41 above) 36.

⁸¹ V&A Crowdsourcing: Search the Collections: <<http://collections.vam.ac.uk/crowdsourcing/>>.

⁸² V&A Crowdsourcing: Search the Collections (n. 79 above).

Crowdsourcing *per se* is a discussion for another publication.⁸³ However, one might consider the case of Wikipedia and, for a positive discussion, see Blackwell and Crane's evaluation of the unpaid labour contributed to that community platform.⁸⁴ A perhaps more established example of a successful crowdsourcing project would be the 'Reading Programme' of the Oxford English Dictionary, which has recruited both voluntary and paid readers since 1857 to supply the editors with quotations and examples of English language usage.⁸⁵ In the earlier Digital Classicist volume, Stuart Dunn notes the effectiveness of utilizing the accumulated knowledge of the human population in the field of neogeography.⁸⁶ To engage the help of the user community (as LoC asked), they must be able to see the benefits for themselves. The initial impetus can result from 'crowd-casting' (*i.e.* 'pushing' the need and incentivizing user participation) but ultimately the potential contributors of additional data need to be 'pulled' in the direction of the objective.⁸⁷ As noted in the LoC final report: giving users 'the ability to engage and connect [...] increases the sense of ownership'.⁸⁸

User comparisons of collections on Flickr

It has not been possible to gather user statistics from institutions participating in *The Commons* other than those published by LoC in their final report.⁸⁹ Launched in January 2008, these figures were collected on 23 October 2008 and so represent approximately ten months. The total images in their Flickr collection: 4,615.

- All time views: 10.4 million;
- 79% of the images had been made a 'favourite';
- More than 15,000 Flickr members had made LoC a 'contact';
- 7,166 comments were left on 2,873 photos by 2,562 unique Flickr accounts;
- 67,176 tags were added by 2,518 unique Flickr accounts;

⁸³ Crowdsourcing is the term often used when the content is generated or added to by users of a resource rather than the creators of that resource. An example of such a project is Transcribe Bentham: <<http://www.ucl.ac.uk/transcribe-bentham>>. See also the recent initiative by the AHRC: Crowd Sourcing Study: <<http://crowds.cerch.kcl.ac.uk/>>.

⁸⁴ See: 'The work of scholarship: new divisions of labor in the world of Google and Wikipedia', in 'Scaife digital library and Classics in a digital age', in Crane & Terras, *Changing the center of gravity: transforming Classical Studies through cyberinfrastructure*, 3:1 (2009) <<http://digitalhumanities.org/dhq/vol/003/1/000035/000035.html>>.

⁸⁵ Oxford English Dictionary: Reading Programme: <<http://www.oed.com/public/reading/reading-programme>>.

⁸⁶ S. Dunn, 'Space as an artefact: a perspective on "neogeography"', in *Digital research in the study of classical antiquity*, ed. G. Bodard and S. Mahony (Farnham 2010) 53-69.

⁸⁷ For more discussion on this point see: A. Hudson-Smith, M. Batty, A. Crooks, and R. Milton, 'Mapping for the masses: accessing Web 2.0 through crowdsourcing', in *Social Science Computer Review* 27.4 (2009) 524-38.

⁸⁸ 'For the Common Good' (n. 41 above) 25.

⁸⁹ 'For the Common Good' (n. 41 above) iv.

- Fewer than 25 instances of user-generated content were removed as inappropriate;
- Average monthly visits to all their 'Prints and Photographs Online Catalog' web pages rose 20% over the five-month period of January-May 2008, compared to the same period in 2007.

Their move to Flickr had made a considerable positive impact on the traffic to their web pages.

The Flickr aggregated statistics for the *AWIB* collection on 22 November 2010 represent a period of approximately eight months:⁹⁰

- View counts (total images in the collection: 2,098);
- Number of views on the previous day: 50;
- All time views: 19,492;
- Number of individual images viewed: 1,210;
- Images added as 'favourites': 24;
- Images that have had comments added: 12.

HumSlides on Flickr was launched to coincide with the start of the UK academic year in September 2009 and so statistics collected at 4 December 2010 represent approximately fourteen months:

- View counts (total images in the collection: 4,035);
- Number of views on the previous day: 0;
- All time views: 855;
- Number of individual images viewed: 261;
- Images added as 'favourites': 1;
- Images that have had comments added: 0.

These figures highlight the difference in use between these collections that share the same platform. *OxCLIC* is not included in the comparison here, as it is hosted on institutional infrastructure rather than Flickr and user statistics are not published.

Conclusion

Cost is an immediate reason for keeping this resource on Flickr. Setting up and developing the infrastructure, whether using proprietary software or an Open Source option, to host and maintain an online collection should not be taken on lightly. In addition, the major cost of the *HumSlides* pilot was the labour involved in the digitization of the slides and the processing of the images into usable content. With the ubiquitous nature of digital photography (one of the reasons for the demise of the slide medium in the first place), we have a readymade source of digital images from our community, many of whom already share their images on online platforms such as Flickr.

Using the *AWIB* model and releasing the images under the appropriate Creative Commons licence would mean that they may be freely downloaded, copied, shared, and

⁹⁰ With thanks to Tom Elliott at ISAW for providing this data.

adapted, providing that they are attributed correctly. Actively encouraging reuse will raise the profile of the collection (and that of the contributors) through citation and this raised profile will in turn encourage those in our community to contribute their images and improve the collection. With the bulk upload tool and metadata organized in a spreadsheet as per our standard, uploading the images and data is a trivial activity and no additional storage facility is required.⁹¹

This, then, seems to be the way forward and the only other consideration is whether or not to allow users to contribute additional data in the form of tags and annotations. The two models we have are *The Commons*, which allows crowdsourced data, and *AWIB*, which does not. The issue here may be one of the staffing implications involved in the management of any user data that is added. The parent institution of *AWIB* is ISAW and one of their partner projects is *Pleiades*, which is a community-based project where members create, modify, and share data,⁹² and so there should not be any objection in principle. It is perhaps more an issue of staffing costs. This is confirmed by the director (Tom Elliott) who adds that their policy is to reciprocate contact requests and allow anyone who is serious about tagging images for the benefit of others the opportunity to do so.

With the possibilities for reuse, the images from an open *HumSlides* collection can be embedded in teaching modules. Further, they can be collected together, built into teaching objects, and incorporated in initiatives such as the Higher Education Academy (HEA) and JISC-funded Open Education Resources (OER) Programme to make teaching resources freely available to all.⁹³ With the appropriate attribution, this would again raise the profile of both the collection and its contributors. To increase awareness, the image collection needs to be promoted within the institution (and, if open, then also amongst other institutions) and wider community and perhaps packaged to be made available as OERs for embedding in teaching and student projects. The community could be greatly widened by establishing links with existing Classics collections such as those at *AWIB* and also The *Stoa* Consortium.⁹⁴

The nature of internet is changing and so are the users. The so-called Web 2.0 is not a technological revolution, but a social revolution enabled by the new technology. It has reorganized the way we communicate and hence how we learn, with users becoming contributors and collaborators.⁹⁵ Here, in this suggested model, users become contributors of

⁹¹ It would, of course, be prudent to retain an offline archive copy of the image files although this would have a trivial cost.

⁹² See 'The *Pleiades* Community':
<<http://www.atlantides.org/trac/pleiades/wiki/PleiadesCommunity>>.

⁹³ See the HEA/JISC OER programme:
<<http://www.heacademy.ac.uk/ourwork/teachingandlearning/oer>>.

⁹⁴ The *Stoa* (<<http://www.stoa.org/>>) has been committed to Open Access since its inception and has images collected and made available at <<http://www.stoa.org/gallery/>> hosted on the institutional infrastructure at the University of Kentucky.

⁹⁵ For more on the changing relationship between 'production and consumption of content' see: D. Beer and R. Burrows, 'Sociology and, of, and in Web 2.0: some initial considerations', *Sociological Research Online* 12(5) (2007): <www.socresonline.org.uk/12/5/17.html> [accessed 9th February 2011].

images and the community as a whole become suppliers and improvers of the metadata. This is much more in keeping with Tim Berners-Lee's original conception of the Web, where, rather than being an online marketplace and entertainment centre, we should all 'be putting [...] ideas in, as well as taking them out.'⁹⁶ Users, then, have a vested interest in and a sense of ownership of the collection, which will help to ensure its sustainability. Web based technologies now offer opportunities to develop user-driven models and collaborative environments for generative teaching, learning, and research image collections. The collective knowledge of the user community becomes a resource to enhance and drive its usefulness forward. In this case the more the resource is used, the more it will grow and improve.⁹⁷

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⁹⁶ T. Berners-Lee, 'Transcript of Tim Berners-Lee's talk to the LCS 35th Anniversary celebrations', Cambridge, MA (1999): <<http://www.w3.org/1999/04/13-tbl>> [accessed 10th November 2011].

⁹⁷ Since writing there has been an important new AHRC publication with a focus on engaging user communities to enrich humanities resources. S. Dunn and M. Hedges, 'Crowd-sourcing scoping survey: engaging the crowd with humanities research' (AHRC Project 2013). PDF available at: <<http://crowds.cerch.kcl.ac.uk/>>.