Existing services for online lectures and seminars

Scoping report

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CONTENTS

1. INTRODUCTION

This report examines the current state and availability of online delivery of lectures and seminars by universities, museums and other academic institutions and individuals. It seeks to examine best practice and innovations that currently exist and to observe the potential of new technologies and ideas. The purpose of this report is to act as a foundation for the online delivery of the IHR programmes held at Senate House. The project seeks to create an integrated approach that transforms the seminars into a research and training platform for academics and students alike. The role of podcasting is essential to this investigation but is not by any means its limitation. The report investigates live streaming, virtual learning environments (VLEs), course documents and 'enhanced podcasting' that currently exist on the web and associated technologies that will help to maintain the IHR as a leading institution for humanities research and innovation.

The podcast has established itself as a popular format for amateur and professional recordings (either audio or visual) which utilises web 2.0 technologies and generally promotes open access ideals. The idea was first developed during the late 1990s by major companies but since 2004 has become an increasingly popular medium for audio and visual recordings on the internet via an RSS feed. The Oxford English Dictionary (OED) describes a podcast as 'a digital recording of a broadcast, made available on the Internet for downloading to a computer or personal audio player'.[1] More intuitively the entry for 'podcast' on Wikipedia has borrowed a description from the *Journalism & Communication Research Group* at the University of Texas at Austin: 'A podcast is a digital audio or video file that is episodic; downloadable; programme-driven, mainly with a host and/or theme; and convenient, usually via an automated feed with computer software'.[2] It is notable that online lectures and seminars currently provided by universities have utilised this technology as standard.

The survey of existing academic podcasting detailed in this report confirms that at present the humanities are highly under-represented in relation to the sciences and that American universities and academic institutions are far in advance in the use of digital media than their UK counterparts. However, this situation is rapidly changing as UK institutions – driven in part by consumer demand and increased free or cheap access to web 2.0 technologies and in part by the necessities of tightening budgets and increased competition – seek to promote their 'brand' and adapt to changing student and educational demands. The rise of open educational resources (OER) and a new focus by the Research Excellence Framework (REF; previously Research Assessment Exercise

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[1] *OED*, 'podcast', http://dictionary.oed.com/ [Last accessed: 16 April 2010]. The quotation is to the noun. The verb 'to podcast' is described as 'to make (a digital recording of a broadcast) available on the Internet for downloading to a computer or personal audio player'.

[2] *Wikipedia*, 'podcast', http://en.wikipedia.org/wiki/podcast [Last accessed: 16 April 2010]. This particular reference derives from H. Gilde Zúñiga, 'Digital democracy: reimagining pathways to political participation', *Journal of Information Technology & Politics*, 7:1 (2010), pp. 36–51 (available online: http://pdfserve.informaworld.com/278707__919060716.pdf [Last accessed: 16 April 2010]).

(RAE)) on the impact of research outside the 'closed doors' of academia is beginning to refocus UK institutions on the potential that digital media can provide.

Most research into podcasting and online lecture delivery in academia is related to undergraduate tuition and is therefore focused on serious questions of student learning practices, student participation and interaction.[3] Most essentially there is a genuine fear among lecturers that the online presentation of their lectures will result in the emptying of lecture theatres. Attendance issues are made all the more extreme if the lecture is available in its entirety on the internet. These concerns are not entirely the same in regards to the IHR seminar programmes which exist to promote and further academic research and are not in themselves intended for student learning. However, there are similar questions to consider, especially in relation to learning and research practices.

The development of freely accessible lecture podcasts by American universities such as Stanford, UC Berkeley and MIT, and more recently in the UK by the Open University, Oxford, Cambridge and Warwick (to name but a few), is seen as a viable mechanism to promote the institutional brand and to demystify academia in the eyes of the general public. The adoption of iTunes through iTunes U; the utilisation of video hosting sites such as YouTube; and promotion through social networking sites such as Facebook, Myspace and Twitter have already led to a high degree of interest among the media and the public.

Podcasts are of course only one part of these new initiatives. American universities such as UC Berkeley and MIT have not only provided audio or visual recordings of their courses but additional material as well. Lecture transcripts, exercise tasks and presentation slide shows have also been made available to students and public alike. In 2005 the Open University set up Open Learn (http://openlearn.open.ac.uk/) where it provided to the public sample courses and teaching resources for free. New online repositories such as Jorum (www.jorum.ac.uk/) and HumBox (www.humbox.ac.uk/) are leading the way in the UK for the sharing of teaching resources that have traditionally remained the sole ownership of individual institutions or indeed individual tutors. The scope for e-learning resources is paralleled by the expansion of research projects provided on a digital platform. The 'Connected Histories: Sources for Building British

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[3] For instance Stephen M. Walls et al., 'Podcasting in education: are students as ready and eager as we think they are?', *Computers & Education*, 54 (2010), pp. 371–8; Palitha Erdirisingha, Gilly Salmon and John Fothergill, 'Profcasting – a pilot study and guidelines for integrating podcasts in a blended learning environment', *Beyond Distance Research Alliance, University of Leicester* (January 2007), pp. 5–6 (available online: https://lra.le.ac.uk/handle/2381/404 [Last accessed: 16 April 2010]); Susan Smith Nash, 'Fighting intrusive thoughts using podcasts: a strategy for e-learning', in *Proceedings of the 2006 Informing Science and IT Education Joint Conference* (Selford, 2006), pp. 279–85; Tara Brabazon, 'Socrates in earpods? The ipodification of education', in *Fast Capitalism* (2006) (available online: http://www.uta.edu/huma/agger/fastcapitalism/2_1/brabazon.htm [Last accessed: 25 March 2010]); and Valérie Gauthier, 'Learning without borders; towards a multidirectional, collaborative pedagogical environment', https://studies2.hec.fr/jahia/webdav/site/hec/shared/sites/gauthier/acces_ anonyme/Podcastinglast-z_2.pdf (nd) [Last accessed: 23 April 2010].

History, 1500–1900' project reflects the increasing need to link these diverse resources together to make them more manageable and usable.[4]

Making all of this possible is the availability of integrated platforms such as virtual learning environments (VLE) and the expansion of freely available applications and programming that reduce financial costs and provide open sharing of web 2.0 technologies. The potential impact of delivering seminar and lecture materials online then is intricately tied up with the rise of Open Educational Resources (OER). Open access is being heralded as the way forward to maximise research impact.[5] As argued by Scott Kiel-Chisholm and Brian Fitzgerald in 2006 open access 'promotes the advancement of knowledge, the development of ideas, the catalyst for creativity and the ability to communicate freely with the people of the world'.[6] The increasing use of Creative Commons licences, which do not reserve all but only certain rights, has furthered this cause and has already been implemented in many universities for the free distribution of research and teaching materials.[7] There are still, however, plenty of issues and concerns that OER brings to the surface. How should these resources be financed if they are to be given away freely? How much and what type of material should be included? How will this affect student uptake of courses? Does a Creative Commons licence actually prevent improper use of materials? Will freely available material become detrimental to the continuance of properly managed and peer-reviewed research publications such as subscription journals and books?

The following report will therefore examine the current state of the online delivery of lectures and seminars with these issues in mind and with the purpose of providing recommendations as to how the IHR should proceed in creating a truly viable digital space for historical research and training that will both promote the IHR brand and the reputation and importance of the seminar programmes themselves.

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[4] *Connected Histories: Sources for Building British History, 1500-1900*:
http://www.history.ac.uk/connectedhistories [Last accessed: 23 April 2010].
[5] See the JISC Open Access paper:
http://www.jisc.ac.uk/publications/briefingpapers/2005/pub_openaccess.aspx [Last accessed: 29 April 2010]; the ePrints website also contains information on open access: http://www.eprints.org/openaccess/ [Last accessed: 29 April 2010]; as does Steven Harnad and Tim Brody, 'Comparing the impact of open access (OA) vs. non-OA articles in the same journals', *D-Lib Magazine*, 10:6 (June 2004), http://www.dlib.org/dlib/june04/harnad/06harnad.html [Last accessed: 29 April 2010].
[6] Scott Kiel-Chisholm and Brian Fitzgerald, 'The rise of open access in the creative, educational and science commons', *Policy Futures in Education*, 4:4 (2006), pp. 366–79; quotation, p. 376.
[7] The Creative Commons website can be found here: http://creativecommons.org/ [Last accessed: 29 April 2010].

2. OVERVIEW – THE CURRENT PROVISION OF ONLINE LECTURES AND SEMINARS

2.1 ITUNES U

The development of iTunes U as a partially-segmented area of the iTunes application has drawn interest from various academic institutions. The principal users of iTunes U are American institutions (most notably Stanford, UC Berkeley, MIT, Yale and Vanderbilt), however over the last few years twelve UK institutions have all launched pages of their own designed to promote and distribute their 'brand' of research and learning materials.

These are:

Aberdeen College
Adam Smith College
Birmingham City University
Open University
Preston College
UCL
University of Cambridge
University of Coventry
University of Edinburgh
University of Glamorgan
University of Oxford
University of Warwick

The range of podcasts and vodcasts (video) varies and might include straightforward promotional literature such as guides and informative resources (how to apply to the university, life at the university etc.) alongside recorded lectures on various scholarly subjects. iTunes describes the 'store' as a means 'to distribute information on your students and faculty – or to lifelong learners all over the world. With an iTunes U site, your institution has a single home for all the digital content created or curated by educators, which can then be easily downloaded and viewed on any Mac, PC, iPod, or iPhone'.[8]

It is hard to argue with the results as far as institutional promotion is concerned. Within two years the University of Oxford passed 2 million downloads from its iTunes U site with many of its podcasts entering the top of the iTunes U chart. In the first week alone there were over 168,000 visitors to the site and 60,000 downloads.[9] According to Barry

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[8] *iTunes U*, 'What is iTunes U?', http://www.apple.com/education/itunes-u/what-is.html [Last accessed: 26 March 2010].
[9] Statistics are from the University of Oxford website: 'The University of Oxford on iTunes U', http://itunes.ox.ac.uk/ [Last accessed: 26 March 2010].

Cornelius (University of Oxford Computing Services) between October 2008 and July 2009 Oxford's iTunes U site had approximately 2,500 downloads per week and its own website (http://podcasts.ox.ac.uk/) boasted a similar amount.[10] It should, however, be noted that Oxford has provided over 243 hours worth of materials and that its international reputation as a leading university precedes it. As a mediating figure, the success of the Open University on iTunes U proves that it is indeed a valuable method of self-promotion. Its website reports that between its launch on 3 June 2008 up to 15 March 2010 its iTunes U store has had 16,090,300 downloads with an average of 342,000 downloads a week. More staggering is that 88.9% of visitors were recorded as coming from outside the UK.[11] As noted by Rebecca Attwood in *Times Higher Education* this is a massive achievement for the OU as its reputation generally has not reached beyond the borders of the UK.[12]

iTunes U offers academic institutions both open access podcasts (free to download) and a registered users area for institutions to upload materials only intended for internal use by their staff and students. A combination of public access and internal access has been the approach taken by Missouri State University among others. In general, though, the iTunes U store is used by academic institutions as an additional place to promote their lectures and seminars online which works side by side with their own website or VLE. However, this is not the case in all instances as demonstrated by the route taken by Stanford and Vanderbilt who only provide content through iTunes.

The success of iTunes U for Vanderbilt has led to the creation of a short video by Apple to showcase the application for academic institutions.[13] Vanderbilt has opted to integrate iTunes U into its own VLE, named Open Access to Knowledge (OAK) [powered by Blackboard Learning System]. It claims that its faculty staff can upload podcasts to iTunes U's restricted access function for use only by students enrolled on courses or to the open access part of its 'store' for public consumption. For Vanderbilt this method alleviates the problem of copyrighted material as a block to uploading materials for its own students while also providing a public face for impact and advertisement purposes. Its integration into its VLE system allows students and staff to incorporate the podcasts into their courses.[14]

As part of the OAK VLE, Vanderbilt has developed an open source iTunes U Building Block which allows administrators to manage their iTunes U store through the VLE and allows students to access the restricted content securely without needing additional login.

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[10] Barry Cornelius, 'Time for iTunesU', paper given at the Institutional Webmanagers Workshop (29 July 2009) (available at http://www.oucs.ox.ac.uk/podcasts/presentations/ [Last accessed: 26 March 2010]).
[11] *Open University*, 'Impact statement', http://projects.kmi.open.ac.uk/itunesu/impact/ [Last accessed: 26 March 2010].
[12] Rebecca Attwood, 'Get it out in the open', *Times Higher Education* (24 September 2009), http://www.timeshighereducation.co.uk/story/asp?storycode=408300 [Last accessed: 23 March 2010].
[13] The video is worth watching. It can be accessed here: http://www.apple.acom/uk/education/itunes-u/profiles.html.
[14] It is interesting to note that as of 2009 Vanderbilt has begun to archive its podcasts on its 'Discover Archive' website, however this is not yet advertised heavily (see http://discoverarchive.vanderbilt.edu/ [Last accessed: 26 March 2010]).

Stanford has taken a similar approach; offering its podcasts only on iTunes U and reserving some of its material for internal (restricted) use only. The access-restricted site contains:

- Course work (module based)
- Community (entire campus community)

Unlike Vanderbilt there does not seem to be the same desire to integrate iTunes U into a VLE. For Stanford the main benefit of iTunes U was to draw together the various recordings that it was already making into one place so that they become a useable and searchable repository rather than an ad-hoc method that resulted in 'an audiovisual scavenger hunt' for resources.[15]

Many students will already be highly familiar with iTunes and will be using it on a regular basis for their own leisure purposes. This makes iTunes an important promotional outlet for academic content. Having academic materials alongside television and radio documentaries, audiobooks and similar resources can be a powerful combination for both promotional activity and for providing useable content online. It can, however, also lose the academic material among the multitude of resources on offer. iTunes also lacks the ability to provide additional content which is easily distinguishable from the podcasts themselves. The History Faculty website, for instance, which provides podcasts by historians for undergraduate and secondary school tuition, was founded upon the realisation that iTunes U did not satisfy all of their needs.[16]

iTunes U places one important restriction upon institutions' use of its service. An institution must have ready 150 audio and video files before it can open a store and be prepared and able to update that content on a regular basis. A presence on iTunes U therefore necessitates a long term programme and the provision and maintenance of significant resources including financing and staffing. It would take some years for the IHR to reach this level of requirement, although collaboration with other institutes in the School of Advanced Study (SAS) or the Bloomsbury Consortium might present a way around this issue (see section 5.2).

2.2 VIDEO HOSTING SITES

YouTube is the most well known and most extensively used video hosting site on the internet today. However, there are others including Mevio (www.mevio.com); Google

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[15] Alan Acosta, 'Stanford on iTunes U: setting the power of knowledge free', http://images.apple.com/channel/us/podcasting/pdfs/Apple-Stanford011509.pdf [Last accessed: 23 April 2010].
[16] The History Faculty (THF); http://www.thehistoryfaculty.com/ [Last accessed: April 2010].

videos (http://video.google.co.uk/); and Yahoo! Video (http://uk.video.yahoo.com/).[17] All of these sites are relatively similar and generally allow any user to upload a video file to the repository, to make comments on the content, and to search between related videos.

YouTube was founded in February 2005 as a place for user-created videos to be uploaded and shared. More recently other types of content have become available including television programmes and academic materials. Universities and academic institutions have begun to use YouTube as another outlet for their videos and podcasts including lecture and seminar recordings. Through the development of 'channels' by YouTube this process has become easier and more productive for institutions to promote, advertise and distribute more widely their branded materials.

The 'channel' feature, which allows an individual or institution to set up its own home page with other features attached, is highly useful for these purposes. A good example is UCLA's use of YouTube. The UCLA channel features videos of its lecture series, and promotional videos about student life, news and sport at UCLA. There are further links to iTunes U, Facebook, Twitter, Myspace, and its own website.[18] In addition, YouTube has provided a space for the aggregating of educational content, including a section for 'history'. YouTube Edu centrally locates all of the academic content in one place.

To varying degrees YouTube has become an outlet and promotion site for numerous American universities. However, few have substantial history content uploaded thus far. In comparison use of YouTube by UK institutions is highly limited. The University of Nottingham does have a channel of its own with 401 subscribers. It also has a connected channel on the books of the Bible (Bibledex) from the department of Theology and Religious studies (with 1,129 subscribers from across the world). Leeds Metropolitan has a channel with 303 subscribers; however this channel only consists of publicity material directed towards potential undergraduate students. The University of Edinburgh appears to be focusing on its most prestigious lectures and public lecture series.

The Open University does have a substantial presence on YouTube. It has four channels: Open University channel; OU Learn (teaching videos); OU Life (through the eyes of students and staff); and OU Research (research carried out by OU tutors). Each provides a different function. There are also links to its own website and to iTunes.

These channels also include the usual YouTube features. You can share the video on other websites; save as a favourite; create playlists; and report the video if inappropriate. There is also a related video news feed, featured video selection, search engine, subscription service and comment box (which could be used for peer review or general

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[17] For a fuller list, see wikipedia: http://en.wikipedia.org/wiki/List_of_video_hosting_websites [Last accessed: April 2010].

[18] As of writing (March 2010) there have been a total of 1,948,215 viewings of the videos and 4,813 subscribers to the channel. Similarly, Stanford University channel has 44,700 subscribers and UC Berkeley has 38,377 subscribers. Stanford's channel supports less user-friendly features than UCLA and Berkeley; however the Stanford and Berkeley channels do contain a comments section. Berkeley also has a 'donate' feature for users to donate money to support Berkeley's presence on YouTube.

comments). Some videos also allow the use of and creation of captions (creation of additional text information such as transcripts, comments etc.).

YouTube and similar video hosting sites are useful promotional outlets but are generally limited (but not entirely) to video outputs. Therefore the IHR may find that these are only rarely, if at all, useful avenues to pursue.

2.3 UNIVERSITY COURSES

2.3.1 THE OPEN UNIVERSITY

The Open University (OU) utilises various technologies to promote itself on the internet and to provide learning and teaching resources to its students and to the public. The OU provides its podcasting archive in iTunes U, YouTube and on its own websites. It is worth noting that the OU also advertises itself through Twitter and Facebook and encourages its students to post short videos on its YouTube channel.

OU websites;

    i.   A public television website (www.open2.net/)
    ii.   OU Podcasts (beta) (http://podcast.open.ac.uk/)
    iii.   Open Learn (http://www.open.ac.uk/openlearn/home.php)
    iv.   Website for its students (www.open.ac.uk/)

For more information on the OU's online strategy see http://www.open.ac.uk/use/.

i.   Open2.net

This website is largely a repository of BBC documentary programmes and the OU's own visual outputs. As such the material is largely categorised by programme title, with limited search facilities. The website does have separate sections for different disciplines including a 'history' site. However, the most interesting feature on the site is evidence for the OU's own experimentations with live streaming. The OU has live streamed its Annual Lecture Series for the last few years. For instance, the 2009 lecture by Professor Richard Dawkins on Darwin is now available as several vodcasts (the lecture is broken up into sections) with a Q&A discussion vodcast. The lecture is also available as podcasts. The website contains a transcript, a biography of the presenter and various links to other related information on the OU/BBC. The events, when live streamed, only allow internet users to view the lecture in real time. There is no possibility of the interactivity that the IHR is looking for.

ii.   OU Podcasts (beta)

This website is billed by the OU as an alternative to its presence on iTunes, however in reality this is the OU's base repository from where podcasts are drawn for iTunes and YouTube. The content is identical to the content in iTunes and includes transcripts of the podcasts. Like on iTunes the files can be downloaded. The website is ordered by discipline and by course. There is also a search engine option and a list of thumbnail versions of its videos. All content is free to the public. It is possible to subscribe to the podcast feeds and users are able to listen or watch through an embedded media player on the site or through Miro (an open source HD video player). Users can also download each file as an mp3 or MPEG.

iii.   Open Learn

Open Learn acts as a location for potential students to get a taster of a course that they might wish to undertake with the OU. As such, much of the material posted online is introductory. There are some podcasts but these tend to be short extracts only. The material is posted under the OER movement and has a non-commercial-share alike Creative Commons licence (see section 5.3). The website is built with Moodle and uses a variety of features and additional applications to create an interactive, integrated and community structured virtual learning environment. The website is an open content adjutant to the main (registered users only) website and is therefore constructed in the same way.

Although Open Learn only provides taster courses it still reflects best use of the Moodle technology. Open Learn promotes various enhanced features including a live video conferencing tool (FM Live Communication); a tool to create video diaries online (FlashVlog); a tool to reorganise resources into new forms – designed to facilitate collaboration learning (Knowledge maps such as Compendium and Cohere); and various forums and blogs (learning journals and club pages).

iv.   Student Website

The Open University student website uses the same Moodle based technology as the Open Learn site but with additional features. For each module, students are offered an online copy of their timetable, details of their profile and tutor, links to various OU materials online, and email support. Various programmes are utilised including Elluminate (an interactive and live online seminar session application – see section 3.2).

OU 'mobile' version

The Open University has a 'mobile' version of its website for those students accessing their courses through mobile devices (such as the iPhone) or for those with slow internet connections. Oxford also has a similar 'lite' site for the same purpose.

Many American universities have set up their own 'podcast' websites and so have several UK institutions. Among them are Oxford and Cambridge. The University of Oxford has a dedicated website for its podcasts (http://podcasts.ox.ac.uk/) and a significant presence on iTunes U. Oxford's own website provides both podcast and additional material, ordered by relevant module and category, as open access. It is clear from this website that Oxford has put most of its efforts into the iTunes U website as beyond a few standard features there is not much here that has been developed fully. The design is also rather cumbersome with information not always in the right place.

The website contains podcasts for various purposes: lectures; interviews; overviews of key concepts; commentaries; outreach and marketing materials; and revision material. Other additional content such as articles; texts; and slideshows is made available in a separate list under the podcast series title.

The majority of Oxford University's podcasts are available through general copyright permissions as detailed on their own website. However, in a relationship with the Higher Education Academy and the JISC-funded 'Open Spires' project (accessible from: http://openspires.oucs.ox.ac.uk/index.html) an increasing amount of material is becoming available through the Creative Commons licences. According to the Open Spires blog entry for 18 March 2010 the project has released 235 podcasts using the Creative Commons licence with over 300 planned releases by the end of the project.[19]

The University of Cambridge has taken a slightly different route from Oxford in presenting its podcasts. Like Oxford, it has a significant presence on iTunes U, but unlike Oxford it has left the development of its podcasts as a collected asset to an unofficial project named Cam TV.[20] The Cambridge volunteers conceive of the project as their equivalent to the BBC iplayer. Due to its unofficial status Cam TV is still in development and various links do not work properly. Through the Steeple Project, videos and podcasts from partner institutions are also included.[21]

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[19] Peter, 'High quality, short terms and busy lives', *Open Spires Blog*, 18 March 2010: http://blogs.oucs.ox.ac.uk/openspires/ [Last accessed: 23 April 2010].

[20] Cam TV, University of Cambridge, http://mediaplayer.group.cam.ac.uk/ [Last accessed: 23 April 2010].

[21] The Steeple Project, http://www.steeple.org.uk/wiki/Main_Page [Last accessed: 23 April 2010]. This is a JISC-funded project led by the universities of Oxford and Cambridge and the Open University to investigate, develop and document sustainable institutional infrastructure to support university wide educational podcasting.

Neither university provides options for feedback (other than an email to the site administrator). Cam TV allows users to add additional keyword tags to resources to help others find them more easily. The website also allows a 'my videos' bookmark/playlist option. However, this is still in development.

In contrast Royal Holloway University's history department has employed a commercial company to look after its podcasts.[22] The Backdoor Broadcasting Company (http://backdoorbroadcasting.net/) specialises in webcasting academic conferences, symposia, public lectures, workshops and seminars in audio formats. Backdoor Broadcasting does admit that there is only limited room for interactivity in its service, although it does provide options for email correspondence, discussion forums and the uploading of additional materials such as transcripts and slide presentations.

In America there are numerous websites dedicated to podcasting from universities. UC Berkeley creates webcasts from select courses and events for on-demand viewing either through its own site webcast.Berkeley or through other applications such as iTunes U and YouTube.[23] These are designed as a study resource for students and as promotion for the university brand. At present UC Berkeley only holds one partial history module in its collection but overall there are numerous podcasts available. Essential to the success of UC Berkeley's online lecture provision is the Matterhorn opencast project which aims to install an automated capture system in lecture theatres to enable fast and automated podcast production (see section 3.3.1).

Yale has taken a more integrated approach than most.[24] Open Yale contains only a limited number of history courses (three at the time of writing) but they are entire courses with podcast recordings (both audio and video); transcripts; course syllabus details; biographies of the lecturers; abstracts; bibliographies; and other additional content. One module even includes a dummy exam paper as a pdf. The website gives the option of downloading the entire course in a zip file format. Each lecture can also be downloaded in either high or medium bandwidth. The design for each 'lecture' page is simple. It includes titles and an abstract followed by suggested reading. Yale therefore offers podcasts as part of free online courses. The majority of these webcasts are audio only, but some do contain video and others an integrated slide presentation (see section 2.5).

Overall many universities in America and the UK provide podcasts on a specific section of their website alongside iTunes and YouTube. In most cases the podcast is just an addition to a list of seminars and lectures on a specific course, much as the IHR currently does. In other cases podcasts are given more prominence with their own page. In these instances there are generally options to put up additional materials (slide shows, transcripts etc.) and to include a brief summary about the podcast. There are a few examples, such as Yale and the Open University, where entire courses are offered for free

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[22] Royal Holloway University, http://www.rhul.ac.uk/history/research/research_seminar.html [Last accessed: 19 March 2010].

[23] Webcast.Berkeley, http://webcast.berkeley.edu/ [Last accessed: April 2010].

[24] Open Yale, http://oyc.yale.edu/history [Last accessed: April 2010].

which include podcasts as one element of a larger package. These tend to be the most integrated examples where students and researchers can find all the related information that they require. However, even then there is little if any interaction and certainly few options for further discussion. The OU does provide forums but these are not integrated into the course resources. Neither do these facilitate an integration of the resources themselves (there are only a few instances where a slide show has been integrated with the audio podcast for instance).

Most university podcasts are either open access or restricted within a VLE for teaching purposes within registered courses. I have found no instances where a charge is made for this content beyond internal course restrictions.

2.4 ARCHIVES AND MUSEUMS

Podcasting and vodcasting by archives and museums offer an alternative perspective as they are not guided towards undergraduate tuition but to the general public. In general, however, the contents of these sites are fairly limited. For instance the Victoria & Albert Museum (V&A) promote a 'V&A Channel' which offers extracts from television series and promotional materials that relate to the museum's collections.[25] These videos provide similar features to YouTube, such as share facilities, ratings options, dim the lights (blanks out the rest of the website while viewing the video), and full screen viewing. Visitors can also access the videos in high or low quality. The V&A Channel offers a limited search engine and a few podcasted audio episodes. The Fitzwilliam Museum, Cambridge offers audio and video podcasts about its collections.[26] These are listed in published order on one webpage with a brief summary text. Although there are search facilities these are not made clear. It is therefore difficult to find podcasts related to a specific topic, era or format. Many museums do not seem to have latched onto podcasting yet, or have only integrated them into other pages on their website (gallery information and so on).

Archive websites such as the UK's National Archives and the National Archives of Australia offer similarly standard podcast facilities. The UK National Archives has a webpage which lists podcasts in publication order. There are no search facilities or indices available, making this difficult to use and research. The National Archives of Australia only provides access to its podcast's through iTunes U or the JUICE Media Aggregator (a program that allows users to select and download audio files from anywhere on the internet to the desktop).[27]

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[25] The Victoria & Albert Museum, V&A Channel, www.vam.ac.uk/channel/.
[26] Fitzwilliam Museum, Cambridge, www.fitzwilliam.cam.ac.uk/onlineresources/.
[27] JUICE and similar media aggregators use RSS feeds as a subscription list.

There are several collaborative ventures on the internet besides the standard university podcast sites. One of these is the History Faculty (THF).[28] Although directed toward secondary school education, the History Faculty has had considerable success with undergraduates who wish to use podcasts for a general overview of topics. In general the History Faculty recruits university lecturers to provide podcasts for their website. There are approximately fifteen contributors at the moment providing varying amounts of content. A useful facility on this website is the option to link to the lecturer's university biography page which gives users an idea of who is presenting the lecture and in which university context. This feature does a similar job to the profile pages on Teaching History in Museums and Schools (THMS) and HumBox (see section 2.6), providing a face to the audio podcast and nurturing a feeling of community and inclusiveness.

A similar venture in America is the Academic Earth website.[29] This site contains lectures from a broad spectrum of academic disciplines including history and involves numerous American institutions and individuals. In general the resources are presented as entire lecture series although there are a few individual lectures included as well. Each is posted with course abstracts and indices. Alongside the free content are advertisements from universities such as Stanford for chargeable online courses. Even the University of Oxford has made an impact on this site by advertising its Distance Learning Courses (Oxford Department for Continuing Education). It is interesting to note that Academic Earth is unusual in its predominance of visual rather than audio only webcasts. However, like most institutions' websites, Academic Earth only provides streaming and downloaded content without any form of interaction or feedback process.

A similar situation is true with the Research Channel.[30] This is a hosting platform for various institutions and scholars to post podcasts and vodcasts on their subjects. The Research Channel was founded by various research and academic institutions to share their work with the public. At present the 'channel' is largely dedicated to the sciences although there is some humanities content available. Of note on this site are the inclusion of biographies and abstracts (similar to the History Faculty) and the provision of live web-streams that are also distributed on cable and satellite television. One vodcast offered a pop-up screen with the media player next to a slide show screen which were synchronised together.[31] There are also options to view the abstract and bibliography. This is a powerful way of integrating the slide show and additional materials with the seminar paper itself.

A synchronised slide show with podcast is an innovation that appears sporadically throughout the internet. For instance, a similar example can be found on the video hosting

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[28] The History Faculty, http://www.thehistoryfaculty.com/ [Last accessed: April 2010].

[29] Academic Earth, http://www.academicearth.org/ [Last accessed: April 2010].

[30] Research Channel, http://www.researchchannel.org/prog/ [Last accessed: April 2010].

[31] See http://www.researchchannel.org/prog/displayevent.aspx?flD=569&rlD=11073 [Last accessed: April 2010].

site, Mevio.[32] VideoLectures.net, an open access repository of lectures given by scholars and scientists at prominent events, uses similar technology for some of its content and also adds a clickable index.[33] It is a very useful idea as slide shows will make audio podcasts more user-friendly and understandable. However, at present it is time consuming to synchronise the two together (see section 3.3.2 for one possible solution).

The integration of additional materials is highly useful in making the resource usable and valuable to learning practices. However, the inclusion of additional content beyond slide show synchronisation is currently limited. There are plenty of examples where additional content has been made available but this is usually dependent on each individual uploader. A more standardised example can be found in the Teaching American History website, created by Ashland University.[34] Alongside the podcasts on this website are a variety of primary materials, seminar plans and additional content. Together the materials provide a package for teaching and self directed learning, with the option of registering for credits.

Podcasts of radio programmes are also relevant to this research. Programmes such as BBC 4's 'In Our Time' (where the history of ideas is discussed between the presenter Melvyn Bragg and a selection of scholars) and WRCT-Pittsburgh's 'History for the Future' (hosted by Kevin Brown, which discusses historical exempla for contemporary issues) also provide a space for scholarly interest.[35] The BBC website for In Our Time boasts various indexing and searching functions to allow users to find relevant materials. The pages can be browsed by year, title or category (culture, religion, science, history, philosophy), and also by alphabetical list and by era (dark ages, medieval, renaissance, modern etc.). There is a large amount of content on this site and the various methods of searching the archives are extremely useful and important to making the resources usable. Thus, easy to use search facilities are essential.

2.6 DIRECTORIES AND REPOSITORIES

An interesting social networking site related to museums is the Museum Podcast Directory and MuseumPods (http://mesn.museumpods.com/). This is an online directory and social networking site designed to bring together podcasts from museums across the world and to provide a forum for discussion and knowledge transfer. A similar social networking site based in the UK is the THMS network: 'Teaching History in Museums and Schools' (http://thmsnetwork.ning.com/). Both of these sites, but particularly the latter, allow users to view videos and listen to podcasts (along with other materials) and to make comments on them in a similar vain to YouTube, Facebook and Myspace. This is

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[32] See http://www.mevio.com/extshow/406106/history-of-photography-podcasts [Last accessed: 5 May 2010].

[33] Videolectures.net, http://videolectures.net/ [Last accessed: April 2010].

[34] Teaching American History, http://teachingamericanhistory.org/podcasts/ [Last accessed: April 2010].

[35] In Our Time, BBC 4, http://www.bbc.co.uk/radio4/features/in-our-time/ [Last accessed: April 2010] and History for the Future, WRCT-Pittsburgh 88.3 FM, http://www.historyforthefuture.org/wordpress/ [Last accessed: April 2010].

only available through registration, as are other features such as internal email systems, forums, blogs and member profile pages. These websites are trying to nurture a community-based online environment to share teaching resources related to museums, students and schools.

JISC have supported several similar projects for UK universities. The first is Jorum.[36] Jorum aims to provide access to free learning and teaching resources created by UK further and higher education institutions. Although the scope of the project is huge, the presentation and usability is currently limited. A similar JISC-funded project is HumBox.[37] This is an online teaching repository for the humanities in universities. Unlike the Jorum project, HumBox seeks to nurture a community-based sharing environment that encourages co-operation, feedback, discussion and improvement of teaching resources. Users can register an account and create a profile page that provides them with news feeds and bookmark facilities. Like the THMS network and Videolectures.net users can also comment on other resources in view of improving and discussing them collaboratively. HumBox also offers the opportunity to view and create individual resources or a collection of resources. Collections can be made for entire courses or made up from various resources on a common theme. Altogether HumBox attempts to provide a space not only for uploading and downloading resources, but also for discussion and collaboration between institutions and individuals.

2.7 AMATEUR AND PUBLIC PODCASTS

Not all history content is provided by academics. There is a burgeoning community of amateur podcasters on the internet interested in history. One such website is the Military History Podcast by George Hageman which, via a blog, includes the facility to make comments and enter a discussion about the episodes.[38] A similar example can be found on Jason Watts's website entitled History Podcast, which is devoted to historical figures.[39] The History Podcast provides a forum for further discussion. Dan Carlin's 'Hardcore History Archive' also utilises a forum for further discussion (which seems popular) and provides links to Amazon.com for its related bibliographies.

On the internet there are also various gateways and blogs that gather together podcasts posted elsewhere on the web. Open Culture (www.openculture.com) is one of the more popular gateways that advertises itself as providing access to 18,000 subscribers. Learn Out Loud (www.learnoutloud.com/Home) is a similar gateway that gathers podcasts from university pages.

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[36] Jorum, http://www.jorum.ac.uk [Last accessed: April 2010].
[37] HumBox, http://www.humbox.ac.uk [Last accessed: April 2010].
[38] Military History Podcast, http://militaryhistorypodcast.blogspot.com/ [Last accessed: April 2010].
[39] History Podcast, http://historyonair.com/ [Last accessed: April 2010].

Public and commercial websites also exist which provide history podcasts. The History Channel, for instance, has an online presence in its History.com Beta site.[40] Although not for history, Catholic TV is a rather innovative site which has a clear and impressive layout.[41] Catholic TV has also attempted 3D vodcasts. None of these sites provide additional features of note for the IHR project but they do emphasise the need to support interactivity with its users and to nurture a sense of community.

Related to the need for community is the question of video or audio? An argument made by Mark McCrohon suggests that video recordings emphasise a feeling of community and inclusiveness and enable visual learning.[42] However, video recording is more complex to undertake and requires additional hardware. It will also likely have an e on the speaker and audience especially in a seminar environment. This is therefore a more difficult question to deal with. Generally most universities in the UK have focused on audio podcasts. However, in America there is an increasingly large amount of vodcasts of lectures.

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[40] History.com Beta, http://history.com/ [Last accessed: April 2010].

[41] Catholic TV, www.catholictv.com/Home.aspx [Last accessed: April 2010].

[42] Mark McCrohon et al, 'Video streaming of lectures via the internet: an experience', in *Meeting at the Crossroads* (2001), pp. 397–405.

3. TECHNOLOGY ASSOCIATED WITH PODCASTS

3.1 VIRTUAL LEARNING ENVIRONMENTS

Virtual learning environments (VLEs) such as Blackboard have been used in higher education for sometime. The advent of open access VLEs, most notably Moodle, have further transformed the possibilities of these 'environments' for online tuition. The most prominent use and best example of a Moodle-based platform can be found on the Open University's Open Learn website (see section 2.3.1). Various universities are also beginning to explore more interactive VLEs, such as Sheffield's uspace (which describes itself as an online collaboration environment) and Edinburgh's OpenVCE.[43] Both of these examples move beyond the traditional VLE provision to draw in interactive elements such as co-authoring, blogs, polls, exercises and discussions, and in the latter example 3D virtual realities such as Second Life.

At present podcasts only appear in VLEs intermittently and usually only when linked to a module or course. Most podcast collections are held on publicly viewable web space or applications such as iTunes U. However, the new generation of virtual learning/collaboration environments that applications such as Moodle can produce is a way forward which is more versatile and interactive. The IHR's goal is to combine the research seminar online delivery with the research training programmes and will therefore require this level of interaction and flexibility.

3.2 VIRTUAL SEMINARS

Elluminate Live! is a java operated system that the Open University uses to facilitate virtual classroom learning. The sessions can be held between the tutor and all students on the module; between the tutor and a selection of students; or for a one-on-one session. Elluminate is accessible through links to the OU Moodle VLE but it is necessary to download additional files (Java Runtime Environment) to run the application itself. Similar virtual classrooms exist, such as WebEx, Wiziq, and as part of Second Life. Elluminate (www.elluminate.com) and WebEx (www.webex.co.uk) are purchasable products; the latter is designed more for business training than university tuition. Wiziq (www.wiziq.com/) is freeware, designed with schools and universities in mind, and allows for easy integration into Moodle. Second Life (www.seconlife.com) offers a 3D virtual lecture theatre, which for the IHR's purposes may be slightly less useful.

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[43] University of Sheffield, uspace, http://www.sheffield.ac.uk/cics/uspace [Last accessed: April 2010] and OpenVCE as used by the University of Edinburgh, http://openvce.net/ [Last accessed: April 2010].

One possible use of this type of technology is for the IHR's live streamed events. Elluminate, for example, provides a space where comments can be made as text 'chat' or short audio recordings, where other users can be seen and interacted with, and where the seminar audio, video and slide show can be viewed in synch. Virtual classrooms could be an intuitive solution for the research training programme online only materials. This would take the online experience beyond mere chat rooms and forums to provide an integrated multimedia classroom experience.

List of features on Elluminate: chat; closed captioning; polls; interactive whiteboard; graph calculator; telephone conferencing; session plans; breakout rooms; user profiles; video; quiz manager; file transfer; synchronised notes; application sharing; presentation mode; time; indexed recordings.

3.3 MANAGEMENT SUITES

Podcasts are relatively straightforward to produce but they do require time, effort and appropriate applications. There are plenty of solutions online for various aspects of podcast creation ranging from Audacity[44] (an open access audio editing suite) to more comprehensive packages such as Synote, Echo 360 and the Matterhorn opencast project.

3.3.1 AUTOMATIC CAPTURE

There are several automatic capture suites which offer an end-to-end application for recording, editing and uploading podcasts at an institutional level. A popular choice is Echo 360, which is used by various universities around the world.[45] The system requires an initial outlay of hardware particularly in lecture theatres or other rooms where recordings are going to be made. However, once equipped Echo 360 is a cheap package to maintain.

A similar open source version that is currently in development is the Matterhorn opencast project, developed by and for institutions such as UC Berkeley, the University of Cambridge and the University of Copenhagen (to name a few). Matterhorn offers an automated capture system which is designed to reduce time and cost in the production of podcasts. UC Berkeley claims that the technology, when fully integrated into the institution's systems, will lead to a podcast being uploaded within 2–6 hours of the lecture without additional human involvement. The system is being designed to offer an end-to-end solution that supports the scheduling, capture, management, encoding and delivery of educational audio and video content.

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[44] See http://audacity.sourceforge.net/ [Last accessed: April 2010]. Blogs and guides on the internet on how to set up podcasts generally suggest Audacity as a free and useful editing suite.
[45] Echo 360, http://www.echo360.com/ [Last accessed: May 2010].

Unlike Echo 360, the opencast project is still in process and the Matterhorn application will not be fully available until August 2010 (although there is a 0.5 alpha release currently available). However, this is an open access alternative that might, in the long term, prove more affordable as there is only the need for an initial outlay for hardware. The current 0.5 release features:

- Basics to capture, encode, distribute and play media
- Accessible media player
- Administrative lecture capture tools
- Lecture capture automation
- RSS/Atom feed catalogue
- Inexpensive media capture appliance
- Workflow flexibility

Full features for release August 2010:

- Administrative tools for scheduling automated recordings, manually uploading files, managing metadata
- Recommended capture agent hardware specifications
- Integration with recording devices in the classroom for managing automated capture
- Distribution to channels such as YouTube, iTunes and supporting services to push content to campus course or content management system
- Rich media user interface for learners to engage with content, including playback, content-based search, and captioning
- Processing and encoding services that prepare and package the media files for distribution

3.3.2 SYNOTE

Synote is advertised as a web-based application that helps to create synchronised bookmarks (synmarks) that contain notes and tags synchronised with audio or video recordings, transcripts and slides/images.[46] Synote uses voice recognition software to create a moving transcript of a lecture, while tags can be added to make an index and slide shows can be synchronised with the audio/transcript. The platform also allows users to make and view private or shared annotations. In short, Synote claims to provide a

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[46] For more information on Synote, see the JISC Final Report (17 April 2009), http://www.jisc.ac.uk/media/documents/programmes/usersandinnovation/macfob%20final%20report.pdf [Last accessed: 5 May 2010]. See also the Synote guide available online, http://www.synote.org/synote/guide.pdf [Last accessed: 5 May 2010]; and Yunjia Li, Mike Wald et al, 'Synote: enhancing multimedia e-learning with synchronised annotation', in *Proceedings of the First ACM International Workshop on Multimedia Technologies for Distance Learning* (2009), pp. 9–18 (available online: http://eprints.ecs.soton.ac.uk/18224/ [Last accessed: 5 May 2010]).

medium for indexing within a podcasted recording and for the synchronisation of additional media such as slide shows, by means of a transcript created through voice recognition software. Although the transcript will not be perfect it appears to work well enough to be both functional and useful to researchers.

Synote was a JISC-funded project and is therefore offered as open access. It was produced with undergraduate learning in mind but may still have a useful function for the online development of research seminars. The creation of a transcript through voice recognition software, while imperfect, does provide additional content and helps to make podcasts more usable. The ability for users to create their own tags in a recording would reduce the amount of administration time involved, as would the ability to use the transcript to tag a powerpoint presentation.

Synote is notable because it is the only application that will automatically create a transcript from a podcast which can then be manually tagged to create indices. All other capturing software (including opencast's Opencaps project) requires manual transcription.[47]

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[47] Opencaps, http://opencaps.atrc.utoronto.ca/site/ [Last accessed: May 2010].

4. RECOMMENDATIONS

4.1 SUMMARY

The current standard for seminar provision online is increasingly emphasising the podcast – particularly audio but also more recently with visual content. General practice in the higher education and academic profession is to provide these podcasts, sometimes with limited additional content, on a university-hosted website as well as on social networking sites including YouTube, Facebook, Myspace and most especially iTunes U. This content is almost wholly provided under the ideals of open access and OER (Open Educational Resources) although there is also an emphasis on provision of materials in a registered user only area meant for students already enrolled on courses. It is recommended that these are elements which the IHR should seek to replicate in its own initiatives to further promote its brand and to achieve wider impact both inside academia and outside its traditional boundaries.

It should be noted that at present podcasting is not utilised to its fullest potential by academic institutions. At the heart of the principles of web 2.0 technologies is the need to provide collaborative and social spaces. Web 2.0 promotes interactivity and inclusiveness. The provision of a podcast with associated files and metadata or even a live streaming event is, in itself, not enough. Live streamed events, which are currently rare in academia, do not generally utilise technologies to make them interactive and inclusive. The scoping report has also shown that there are only a few attempts to make podcasts and other digital resources a community-building and peer-reviewing process. Most merely provide the materials as a resource with little thought to the potential for development and user participation.

Interconnectivity, collaboration and inclusiveness should therefore be the key focus for the IHR to bring it to the forefront of this technological evolution. An audio recording or live stream is neither acceptable nor appropriate by itself if we intend for the distance researcher to be able to interact and further develop the research and ideas. The provision must be multimedia – embracing integrated technologies that allow the user easily to access online applications (such as bibliographies, search engines, journal articles and digital research projects) while also following the visual elements of the seminar (presentation slides, images and texts). In the case of live streaming the user must also be able to interact with the session – to ask questions and receive answers. The platform must replicate, as closely as possible, the atmosphere of the seminar itself if the project is to be successful. It must also allow for the continued investigation and discussion of the subject after the seminar is finished in a way that promotes better research in a friendly and safe environment and provides legitimate and otherwise unobtainable benefits for the speaker and for the audience members.

While the IHR must take a few risks by experimenting with these new technologies and by trying to go further than other institutions have yet to do, it must also make sure that there is a fall-back position. Many of the recommendations for a more interactive and collaborative process of research (which goes beyond mere broadcasting of a seminar) require a change of thought which is only slowly finding its way into academia and may take many years to reach fruition (if not longer). The recommendations of this report therefore fall into two sections. First, a basic package which provides a highly searchable and integrated space for pre-recorded podcasts and has the facility for further discussion. Second, an enhanced section which allows users to view live stream events, to interact with the seminar in real time and post-seminar, to utilise Synote technology to view automated transcripts with the options to create index tags in the podcast and to record notes and suggest additional content.

The intention is not to make these two sections distinguishable from each other on the surface but to allow the basic functions to operate and be useful if the more ambitious and experimental elements fail. This is essential for the durability and long-term success of the project.

4.2 BASIC PACKAGE

At the heart of the proposal for the provision of online seminars is a desire to provide a virtual space for discussion and furthering of research and debate. These goals parallel the requirements and desires for an online presence for the IHR Research Training courses. The proposals put forward by Mark Merry in his scoping report require that the virtual learning environment (VLE) is a private registered user only space and that the VLE is adaptable to varying content.[48] As noted in that report (section 2.3.1) support and promotion of the IHR brand is essential to the success of this project.

In addition the podcasting of the research seminars requires an additional 'public' space of the VLE platform. The current SAS VLE (SAS VLE Study Online) will need further development for these desires to be fulfilled. The SAS VLE is currently a largely underused resource so development as per our requirements should not be too difficult. Failing this approach, a secondary (but interlinked) Moodle VLE could be created to host those elements not otherwise agreeable with the mandate of the SAS VLE. Further seamless links will also need to be made with the IHR 'History' website, especially those portions related to the seminar programmes and to the research training courses but also to the IHR research and resource projects including BBIH and British History Online.

The SAS VLE is a Moodle-based VLE and therefore all recommendations are dependent on their ability to function in Moodle. The development of the IHR section of the SAS VLE will act as a host for a collection of podcasts and live streamed events captured from the research seminar programme alongside additional content such as slide shows, transcripts and abstracts. The application should be capable of hosting files in a simple

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[48] Mark Merry, *Online Research Training at the Institute of Historical Research* (April, 2010).

and easy to use framework which is highly searchable and organisable. Second, the application should have links with various standard tools applicable to historical research and integrated with the IHR research training modules. It is suggested that we use the Open University's Open Learn as a model for the design of the Moodle VLE.

4.2.1 FILE STORAGE AND PRESENTATION

The system will present the podcasts through a hierarchical tree beginning with a taxonomy duplicated from the IHR website which will allow users to search by seminar programme, year, month, subject, country, historical topic and so on. It is essential that users need not visit more than three pages to reach the podcast. Furthermore, each podcasted seminar will have its own page which will contain:

- The podcast recording
- A short abstract/summary
- Keywords list (see 4.2.5)
- Additional content: slide show, longer abstract, transcript, images.
- Comments box for further discussion (see 4.2.4)
- A short bibliography/suggested reading list (which might be hyperlinked to the Amazon online shop and to the location of articles online (JSTOR etc.) – see section 5.5)
- RSS feed/download option

We will begin by using the podcasts currently available on the IHR 'History' website, as a means to trial the platform.

4.2.2 SEARCH FUNCTIONS

Although the pilot project will only feature a small selection of podcasts, if successful these will grow proportionately in future years. It is therefore necessary to make certain that there are significant search functions available to find individual podcasts and groups of podcasts easily.

- It is proposed that we duplicate the new IHR taxonomy for the seminar programmes so that users will already be familiar with the search options and because this is a useful method to draw users to the relevant podcasts; both those related to current seminar schedules as well as those that are archived. A list of tags provided by the speaker on his or her agreement form will help to achieve this (although tags might need to be reworded to fit within the confines of the

taxonomy).[49] It is also recommended to have a news feed that announces the latest podcasts to be uploaded to the system.

- A search engine (such as Google) which will search for tags and words in the titles, categories, abstracts and associated files.
- A keyword index based on the tags.

4.2.3 INTEGRATED FEATURES

Part of the remit for this project is to link the podcasts to the research training programme but also to facilitate further research. The IHR is in the perfect position to provide an integrated platform that allows users to link directly to various projects under the IHR banner (such as BBIH, History On-line, and British History Online to name a few) as well as general resources such as JSTOR and ODNB.

- For instance BBIH is a vital tool that historians might wish to use to search for more information on something mentioned in a podcast. It is therefore proposed, if possible, to provide a copy of the BBIH basic search function (for users on networks registered to access BBIH) as well as a direct link to the website. This will allow users to preview search results while still on the podcast page, with the additional opportunity to view BBIH on another webpage.
- When uploading the metadata for a podcast there should be a limited list of resources such as BBIH, JSTOR and ODNB which can be clicked so that they appear in a highly visible form (probably accessible through an icon). Other resources perhaps useful only to a few podcasts can be suggested as basic hyperlinks.
- Provision needs to be made for those accessing the resources who do not have appropriate subscription rights (where applicable). Therefore non-subscription resources (for instance Access to Archives) will need to be added to the standard list as well.
- There should, where possible, be connections to the IHR research training modules. One possible way of achieving this is to have courses or parts of courses where students have to interact with the podcasts (review them, add technical additions to them – such as close captioning – and even create/edit some of the podcast files themselves). It is also suggested that there is some attempt to make use of podcasts for historical learning purposes. The urban and metropolitan history module could include an exercise linked to the metropolitan history seminar podcasts, for instance.

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[49] Tags will need to be standardised across the system, including the research training materials, so that searches can and will find all relevant resources on any particular subject.

4.2.4 POST-SEMINAR COMMENTS/FORUM

It is proposed that the podcasts are promoted as part of a process of research. As such it is necessary to provide a space for comments, discussion and debate once the seminar is uploaded. The speaker should be encouraged to take an active role in this subsequent discussion.

- Either a 'comments' function similar to the one used by YouTube, HumBox and VideoLectures.net which allows hyperlinks as well as ordinary text OR a blog/forum integrated into the podcast page which allows discussion under topic headings.
- A suggestion on how information contained in the podcast and in the commentary should be referenced. This is to guide but also encourage the use of the podcasts and the commentary as a publication in its own right (even though it might be a work-in-progress publication).

4.2.5 AGREEMENT FORM (SEE ALSO 4.3.8)

It is recommended that we expand the current agreement form for speakers to include additional data. This form will contain:

- Agreement to be recorded and that recording to be open to the public domain (opt-out clause allowed).
- Agreement to take part in online discussion for a minimum of two weeks after the seminar goes live.
- Advice to potential speakers on whether or not they should have their paper recorded (for instance a postgraduate might wish to talk to their supervisor first).
- Metadata: a short abstract, keywords (tags), suggested indexing points (see section 4.3.7).
- Opt-in option to include the Q&A discussion as a separate audio file (this is not necessarily to be included in the form but just for the speaker to be made aware of the possibility). If the speaker would like the discussion to be included then agreement must be sought from the audience as well. Whether or not this part of the seminar appears online the speaker should be given private access to the Q&A discussion.

4.3 ENHANCED PACKAGE

This section is for proposals for the live stream events and for other features which are experimental. Many of the suggestions relate to furthering and completing research as a means to transform the seminar paper into part of a process of research that is continued and completed on the IHR VLE. Other elements are to provide an enhanced viewing of podcasts using Synote and other technologies.

4.3.1 REGISTRATION

The IHR VLE will require several levels of user access all under one registration process. A small proportion of users will have additional rights to course contents (registered students). This form of registration will allow access to the free content as well as related course pages. However, most users will only have access to the free content – both related to the research seminars and to the research training modules. Registration has two purposes:

1. To allow admission to the facilities and to maintain control over user rights and access.
2. To allow the IHR to keep track of who is using the website and in what way (gathering of statistics).

In general registration is a formality which allows users freely to access seminar resources (including podcasts) and sample training course materials. Registration therefore needs to be straightforward, automatic and fast.

Registration also gives users access to the enhanced features such as a profile/home page; bookmarking facilities; access to forums and live stream events (including chat room).

There will be three main levels of registration.

1. Administrators
2. Course registered students
3. Free registered users

The basic registration should be as simple and quick as possible so not to put people off. Once registered, users will have the option of editing their profile pages, adding additional access rights to courses that they are signed up to (if applicable) and, if possible, registering additional access rights to integrated features (i.e. Athens users for JSTOR etc.). Users can of course ignore these elements and only access the freely available materials.

Live stream events need to be something special and, unlike pre-recorded podcasts, need more fully to replicate the seminar experience for users. There are several issues attached to these requirements.

i.   Should the stream be live audio only or video as well?

If we are trying to capture the seminar experience as closely as possible and to make internet users feel part of the seminar itself then video is a must for these events. The usefulness of a visual connection, as described by Mark McCrohon (see section 2.7), would be more necessary in live performances.

ii.   If available, should the slide show be made available to internet viewers?

If there is a slide show we should utilise technology already available in Moodle which allows live viewing of the slide show. On the screen this will need to appear as a separate viewing screen from the video stream.

iii.   Should internet viewer questions be available in audio or text only?

Audio conferencing would better realise the seminar experience, but would be technically more difficult to achieve and potentially disruptive to the question flow in the seminar itself. Texted questions, voiced via the convenor or chair, would be a better option. There are several methods for this. The comment/forum already in place for podcasts could be utilised for viewer questions. Another alternative is a chat room facility. A basic package by Ustream Producer[50] is available as freeware, but easier to develop would be the pre-existing Moodle chat module. A text-chat facility would allow for other modes of conversation as well – internet viewers could converse during the seminar itself as well as ask questions afterwards. The Moodle chat module also has the benefit of including an 'archiving' option which allows the 'chat' to be saved for future research purposes.

iv.   Should there be mechanisms in place to allow users to view parts of the live event only (i.e. should there be a pre-prepared segmentation of the 'show')?

If the speaker is asked to break his or her paper up into three or four segments (or chapters) then this would allow approximate timings to be advertised before the seminar is streamed. Therefore viewers could choose to watch the entire seminar or certain chapters of it only. This is an extension of the metadata already suggested for the agreement form (see section 4.2.5).

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[50] Ustream Producer is a open access application used by Ustream (http://www.ustream.tv/) [Last accessed: May 2010].

v.   What legal agreements do internet and in-attendance viewers need to agree to?

Upon entering the live stream event/chat room page internet users should be asked to agree to a brief statement which reminds them that they take part on condition that they agree to any comments that they make being readily available on the site and as part of the seminar itself.

vi.   What registration systems should be in-place?

It is proposed that only the general registration facility is used to allow access to these events. We want to make them as open to all as we can, especially as live events are largely experimental. These need to be as easy to access as possible.

Virtual classrooms

Virtual classrooms (see section 3.2) offer an alternative solution to all these issues as they contain most, if not all the features required, even if they were not originally designed for this purpose. This is an option that needs further research before a judgement can be made.

4.3.3 SUGGESTED RESOURCES LIST

It is recommended that registered users of the Moodle site can suggest their own references to related literature and where useful add a link to that resource online. One possible method to achieve this interactivity is to provide a separate copy of a bibliography offered by the speaker which can be edited by all users (a wiki or similar application would achieve this purpose). Therefore the speaker's original bibliography remains intact while a community constructed bibliography can also be created and viewed.

4.3.4 ONLINE JOURNAL

To encourage further participation in post-seminar debate, discussion and collaboration it is proposed that we create a digital publication space for article submission derived from the seminar paper. This would be a polished version of the paper in article form which takes into account what was learnt from the online discussion that took place after the paper. It would therefore be a formal publication (peer-reviewed online with the reviews appearing with the text). This allows the research to be disseminated and reviewed at the same time and gives a natural end-point to the research which began with the presented paper. This publication will either be linked to one that the IHR already produces or be a new online publication purpose made for the seminar programme (i.e. IHR Seminar Proceedings).

4.3.5 COLLECTION OF RESOURCES

It is highly desirable for users to be able to make links beyond the confines of individual seminar programmes that can be saved to their profile page and/or downloaded to their hard drives. At present it is extremely difficult to relate one topic to another, especially when they occur in separate seminar programmes. Yet, there is so much that can be learnt from making such connections. To achieve this aim it is recommended that we attempt to use a 'collection' system similar to the one used in HumBox.[51] Collections in HumBox are created by the users to gather together resources under one heading. These are then displayed as part of each related resource. This community-led approach allows users to identify other research topics which can be examined through incidental evidence found in other collections.

4.3.6 PROFILE PAGES

To nurture an atmosphere of community it is recommended that each registered user has a profile page which contains basic biographical information as well as presentations of his or her interests and uses of the website. The profile page would need to be visible to other registered users to allow each user to compare and contrast his or her interests with others, thereby furthering communication and discussion among the community.[52] Each user will have the option of bookmarking pages that he or she finds interesting and listing podcast series to which he or she has subscribed. There will also be information on what the user has contributed to either as a speaker or in the comments and discussion, bibliography and so on. There will also be an option of writing a personal blog related to the experience of using the IHR VLE resources. The profile page will therefore act as each user's central nerve centre where he or she will access all information related to their account.

In addition it should be made possible for keen seminar convenors to take a more active role in the online provision of their seminars. Seminar convenors should be given additional administration rights to reconfigure their seminar pages and to add an additional 'home page' for their seminar group.

In both cases an option to 'follow' (in Twitter terminology) a profile should be provided so that users are kept informed of each other's updates and progress.

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[51] See the resources and collections in HumBox, http://www.humbox.ac.uk [Last accessed: April 2010]. See also section 2.6 of this report.

[52] One option is to create a profile space using Moodle modules. However, another possibility is to use an e-portfolio application such as Mahara (http://mahara.org/) which can be linked directly to Moodle [Last accessed: April 2010]. As an addition, Mahara does provide an option for private groups to be formed, which while not promoting open research may be a way to encourage debate and discussion within closed groups as an alternative. Mahara may also be a solution for the research training modules aspect of this project.

4.3.7 CLOSE CAPTION OPTION

There are plenty of applications that enable administrators to synchronise transcripts and slide shows to podcasts. These, however, all require time and effort to produce which will not generally be available. It is recommended that where it is particularly useful (or necessary) to provide a synchronised transcript or slide show (or both) that this is done. This will, however, need to be an occasional activity.

Another possibility also presents itself in Synote (see section 3.3.2). The potential of Synote automatically to create an approximate transcript through the use of voice recognition software is intriguing. However, even Synote requires a certain level of manual work to synchronise slide shows and to create internal indices for the podcast. This work is slightly relieved through the request for 'index' points to be suggested by the speaker in their agreement form (see section 4.2.5) but does not remove the time constraint issue entirely. It is therefore suggested that Synote be tested as an optional add-on to the IHR VLE platform. If we create user guides or a mini online module on the Synote application then users can do the work for us and use the application as part of the research and learning experience. Users will need to be able to duplicate available podcasts into a segmented area of the VLE operated through the Synote application. There users could use the Synote features to 'enhance' the podcast. When the enhanced podcast is created in Synote a link will automatically appear on the podcast page so that other users can view the results and, if they wish, continue the editing process.

The integration of the research training courses with the seminar programme project also offers an alternative workforce. Students enrolled on certain modules could be given an assignment or exercise to edit podcasts through Synote for enhanced viewing. Students will learn more about tagging and synchronisation while the IHR gains additional content with minimal additional effort.

4.3.8 ENHANCED FEATURES: AGREEMENT FORM

Additional options:
- Option to agree to an audio or video recorded Q&A session after the seminar is completed. Once debate and discussion has happened on the VLE site the speaker can voice his or her responses.
- Option to publish an article as a response to the paper and virtual discussion OR option to post a link to the resultant article published elsewhere.

It is recommended that we experiment with the Matterhorn opencast application and with Echo 360 to determine whether the IHR should invest in an integrated audio/visual system (see section 3.3.1) or whether we should stick with a similar system to that which is currently in place.

5. STRATEGIC CONSIDERATIONS

5.1 RELATIONSHIP TO RESEARCH TRAINING PROGRAMME

The IHR Digital VLE will be designed to host both the research training courses and the online delivery of research seminars. It is essential that these are integrated closely. The research seminars are an ideal resource to complement both historical skills modules and those that are historically specific. For instance, exercises could be built in to the system for students to comment upon podcasts (using the comment feature) or to add annotations, captions and indices through the use of Synote. Both segments of the VLE can utilise forums, blogs and wikis to facilitate learning and research – one can learn from the other. Other applications such as virtual classrooms (e.g. Elluminate – see section 3.2) and e-portfolios (e.g Mahara) may prove useful for both the seminar provision and the research training courses. Also, by providing a link between the research training courses and the seminar series we will be supporting much stronger promotion of both.

5.2 BRANDING AND ADVERTISING

It is essential that the IHR branding colours and style are transferred to the VLE and that links with the 'History' website are clear and easy to follow. A decision needs to be made as to whether aspects of the research training provision will be on the IHR website while other elements will be in a registered only area (with differing access rights) or whether all content will require registration through the VLE. The majority of the seminar provision will be open to all through free registration to the VLE system but there will also need to be extensive links to the current seminar programme listed on the 'History' website.

It is also recommended that the IHR promotes its podcasts through iTunes U. The issue here is quantity of resources. iTunes U requires a large number of resources to be deposited upon sign-up and for there to be a constant stream of resources uploaded thereafter. At present the IHR project will not be able to achieve those requirements. There are, however, two potential options that can help to rectify this problem. The School of Advanced Study (SAS), of which the IHR is a member, has produced a small number of vodcasts. The 150 figure might be achievable in collaboration with the wider School rather than at Institute level.[53] Alternatively, in January 2010 JISC awarded the Bloomsbury Consortium a pot of money to develop the Bloomsbury Media Cloud. The

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[53] School of Advanced Studies (SAS), www.sas.ac.uk/. For the vodcasts see
http://www.sas.ac.uk/video.html.

project proposes to develop a shared media platform across the Colleges, including a consortium site on iTunes U. These are avenues worth exploring.

Where possible, material should also be uploaded to YouTube, although the lack of video content created by the IHR may make such an extension difficult to achieve (and less worthwhile). More possible for promotion is a presence on learning repositories such as HumBox and Jorum. We may wish to promote a 'best of' series each year from our repository to these applications.

Advertising will also need to be undertaken through blogs and social networking sites such as Twitter, Facebook and Myspace. Promotion on these sites appears to be particularly popular and successful for drawing interest. Alongside this 'online' publicity we should begin an email campaign once the site is 'live' and make use of posters and flyers which can be distributed to UK history departments.

5.3 COPYRIGHT

The rise of open access and OER alongside increasing use of the internet as a medium for education and learning has led to an ongoing renegotiation with copyright requirements. Although the use of 'all rights reserved' is still commonplace and often necessary, the increasing use of Creative Commons Licences (especially linked to online teaching resources and podcasts) is becoming an easy to use and standard legal requirement.[54] The Creative Commons Licences work under the premise that only some rights are necessary to reserve to enable freedom of use and to allow for innovation. Many universities already use Creative Commons Licences for their podcasts as do teaching and learning repositories such as Jorum and HumBox. It is recommended here that the IHR utilise the Creative Commons Licences for the online seminar provision and for the freely available materials related to the research training courses.

5.4 INTENDED AUDIENCES

The targeted audiences for the IHR's provision of seminars online should be as broad as possible. The inclusion of the IHR research training programme helps to nurture the connection of postgraduate research with academic research but the impact of this provision should be seen to go further than that to embrace all interested parties ranging from the general public interested in history to undergraduate and postgraduate students to established academics. As such certain controls and identifiers will be needed for user registration to allow all levels of research to be accepted but also open to identification. This is essential to allow the VLE to become a place of community and for research of varying kinds.

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[54] For the Creative Commons Licence website see http://creativecommons.org/ [Last accessed: April 2010].

It is also suggested that alongside the research training handbooks recommended by Mark Merry in his report we provide a handbook on how to use the features available in the IHR VLE, including guides to viewing live streamed events, how to organise profile pages and utilise their functions, and how to use the Synote add-on.

5.5 SUSTAINABILITY

The online provision of research seminars will need to be open access. There are no instances at the moment where this is otherwise, except where the podcasts are linked to a registered course. However, the proposal for increased interactivity does require users to register a free account to access most of the materials. With open access in mind, the VLE will need largely to run itself once the initial set up has been completed. It is envisaged that at the most there will be four to five podcasted sessions a week, so the creation and editing of podcasts can be done with a minimum of time and effort by the IHR publications team and/or by the seminar convenors themselves.

The relationship of the seminar provision to the research training programme allows us to utilise students to maintain additional features and to promote usage of the site. It might even be possible to recruit students to take over some of the background work such as editing the podcasts before upload. If Echo 360 or Matterhorn are used the process should involve even less time from the publications team.

A small revenue stream might also be possible through the bibliography features (see section 4.3.3). Amazon offers a 10% incentive to 'affiliates' for websites that advertise their products.[55] Several sites on the internet already do this including the University of Cumbria, the Law School for the University of Edinburgh, and the amateur-podcasting site 'Hardcore History Archive'. For this to work it would be necessary for an administrator to create the links on pre-created bibliographies and occasionally to search through the VLE to find additional instances in edited bibliographies.

Moodle is the perfect application for future sustainability in relation to changing technology. Moodle allows for relatively easy update, removal and replacement of modules when necessary.

5.6 ASSESSMENT

It is vital that as the project progresses we make sure that the system is operational and user friendly, but also that the features are required and wanted by users. Initially it would be useful to send out a short questionnaire to history departments across the UK and to the research seminar convenors to request feedback on how they would use

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[55] Amazon affiliates programme, https://affiliate-program.amazon.co.uk/ [Last accessed: May 2010].

podcasting in research and whether additional features such as forums, blogs and close captioning would be used and welcomed. There should then be subsequent follow up questionnaires once the site is live.

Registration also allows us to examine site statistics to see how users are approaching the site and who the users are. For the first few months statistics should be drawn up and made publically available and thereafter approximately every six months.

6. NEXT STEPS

There is still very little in the way of any quantifiable evidence that podcasts and an interactive framework around them are required or even desired by the history community. It is therefore essential that work be undertaken to rectify this lack of information. A survey, primarily geared towards university history departments across the country, will be undertaken to assess current thoughts about the online delivery of seminars. A second survey should also be prepared to seek the views and opinions of the seminar convenors, as these facilities will be no use at all if the convenors do not give their backing to the project.

These surveys will act as a starting point for gauging reaction to the project and how best to engage with the communities that we seek to draw to the website. An article and 'crib sheet' will be produced to explain why podcasting is a good way forward for the seminar convenors, audience and speakers. These will in part be based upon arguments that are already in print but will also take into account the results gathered from the surveys. From here we can begin to formulate a carefully planned promotion campaign to engage and the historical community and convince them that this platform is a useful addition to their research.

Alongside the surveys it is important to begin experimenting with the key applications, primarily Moodle, Synote, Mahara and Matterhorn. It is vital that we can assess what these applications are capable of providing, how much time and effort is necessary to make use of them, and how easily these applications can be integrated with each other. This user-testing will require extensive discussion with the University of London Computer Centre (ULCC), who are providing the technical expertise for the Moodle platform, and in-house experimentation with the applications themselves.

To achieve the former of these, technical specification reports will be drawn up for discussions with ULCC. Initially these will be broken up into four sections but this will largely depend on the requirements of ULCC;

- General pages and features
- Research seminar provision
- Research training courses
- Research training handbooks

It is envisaged that the basic build will begin in early June with a view to user-testing in August. Initially we will focus on the general pages (home page, about us and so on) and the static training handbook pages, with the more complex training course pages to be focused on once the other elements are largely created. Sample material will be ready for both the handbooks and general pages by this time.

Build for the research seminars will begin in September with a view to completion for user testing by November. As the IHR is already podcasting some of its seminars these can be used as sample material for the build. A soft launch of the project is scheduled for January 2011 with the full launch scheduled for March 2011 once initial feedback has been received and acted upon.