

Have We Produced Unsustainable Resources?
Transcript of Discussion Forum on 17 November 2007
(organised as part of the AHRC funded Future Histories Research Network)

John Storey (Director of the Centre for Research in Media and Cultural Studies, University of Sunderland): My name's John Storey, I'm Director of the Research Centre which is hosting the conference, and it's my great pleasure to welcome you to our discussion forum, with the provocative title of *Have We Produced Unsustainable Resources?* The intended aim of the forum is to promote a twofold discussion: first of all, a discussion of the sustainability of the growing number of film and video databases and online research resources that have emerged in recent years, and secondly how to maximise the use and visibility of these resources.

The forum will begin with four short position papers which will last about five minutes each. Each will address in different ways the central issues of the forum. Lorna Hughes (AHRC ICT Methods Network) will be followed by Campbell (Luxonline), who will be followed by Steven Ball (British Artists Film and Video Study Collection, University of the Arts London) and concluding will be Daisy Abbott (AHDS Performing Arts). I've just been reminded that the listed speaker, Gaby Wijers (Montevideo, Netherlands), has not been able to attend, and that's why Steven has stepped in. The position statements are intended as starting points, a means to open up discussion, and we're hoping for a very fruitful and fairly long discussion. We're also hoping that the forum will facilitate greater networking between the various projects and resources discussed. The workshop will conclude after the discussion with the respondent, Julia Knight (University of Sunderland/Film and Video Distribution Database), who will attempt two things: to summarise the key points discussed, and to draw together any key action points. Our first position paper is presented by Lorna Hughes.

Lorna Hughes (AHRC ICT Methods Network): Thanks very much. In my position paper I'm going to be discussing all electronic resources for research – text as well as audio, visual and moving image – in an attempt to address the question of long-term sustainability and visibility of these resources. These two questions are, I think, inexorably linked. As researchers promoting access and use of digital resources that we're creating, we're insuring a broader audience for them, which has implications for their long-term sustainability. However, we as a community are moving into an era of very uncertain models of funding for digital resources in the Arts and Humanities, and it may well be that these resources and the unique forms of scholarship that they enable are becoming endangered, and indeed that vast amounts of funding invested in their creation are at risk of being wasted.

Until very recently the UK boasted a model of centralised support for digital resources in the Arts and Humanities that was both robust and a source of justified pride. While still paling, of course, in comparison with the sort of support available to the scientific and medical disciplines, support for digital creation, use management and preservation of digital resources in the Arts and Humanities was in the context of a unique, centrally funded model that set the UK far in advance of other countries in terms of overall investment in this sort of work. In fact, the UK model has been of great interest to Research Councils from, for example, Germany, Ireland and Australia, who looked to aspects of this model for their own constituencies, and who now all will have no shortage of job

applicants from the UK services that have come to an end. As of March 2008, both the [AHRC ICT] Methods Network (which was funded to support the access and use of digital resources) and the AHDS (which was funded to support the creation, management and long-term preservation of digital resources) will come to an end, with little in the form of contingency plans for what the community can put in place at this time. In the summer of 2007, this network [the Future Histories of the Moving Image Research Network] composed a very strong letter to the AHRC questioning its decision to close down the AHDS. The letter, which was published in *The Times Higher Education Supplement*, assessed the qualitative value to the Arts and Humanities research community of the AHDS's services. As these arguments did not win any converts, I want instead to have a look at the quantitative evidence. To do this, I want to bring up the consequences of the decision to digital resource projects that have been funded by the AHRC, though what happens to these will, to a large extent, apply to similar projects funded by other Research Councils.

To examine the volume of AHRC projects affected by this decision, I looked at a table which gave total numbers and value of the standard research grants and resource enhancement grants that were awarded up to the end of 2006 – that is, projects that are due for completion after the end of the AHDS. Of standard research grants – traditional research grant applications that go into the AHRC – 208 had some form of technical appendix, ie were producing some kind of digital output. The value of these 208 projects was £54,526,892. Of the projects funded under the resource enhancement scheme – projects that had a predominantly digital output and were creating a resource for study and use by researchers – 173 had some kind of technical appendix, up to a value of £39,470,810. It's worth emphasising that in the case of the research enhancement grants, the digital resource is very likely going to be the primary output of the project and not ancillary to print publications. So we're therefore looking at a digital preservation problem of at least 173 research projects which have digital outputs that will need to be preserved, up to a value of approximately £40m, and that's a very conservative estimate. Up until a few months ago, only 22 of the resource enhancement outputs had actually been deposited with the AHDS – the rest were either in the pipeline or not completed. With the demise of the AHDS, we don't know what's going to happen to them.

So, what are the implications of this for our community, apart from a tremendous waste of public money? The most obvious requirements that need to be met by the digital outputs of these projects are access and preservation. The other main issues are visibility, optimising quality and good project management. In terms of access and preservation, it is likely that the vast majority of these projects will find a home, with appropriate access, in the servers of their host institutions, or find a home somewhere. However, how long are they going to be available? There are no guarantees – there's no guarantee that these resources will continue to be visible and continue to be useable. And we know from the numbers that these resources are expensive to create. We also have to address the issue of updating and upgrading these resources. Access to a digital object is conditional on the digital environment it's located in and the digital format in which it's preserved. Constant evolution is an essential condition of all digital environments, so sooner or later digital objects will become unusable and unstable if they're not updated. The typical digital output poses particular preservation problems. A large number of these resources are online searchable databases, multimedia resources with complex user interfaces. They use a wide variety of often proprietary technology and need to be frequently updated and upgraded if they're to remain live. We also have concerns about the visibility of these resources – we need to make sure that they continue to be used and accessible, but also that they can still be found. We need centralised catalogues and search facilities to find these resources. We also need to optimise their quality to ensure that they follow good standards and best practice, so that the harmonisation and interconnection of these resources is possible, and they can be repurposed in the future for unanticipated uses. This all requires good project management and

the use of technical skills which Arts and Humanities scholars are often not familiar with. There's therefore a huge risk to the community at this time, and our resources are becoming endangered. A lot of AHRC funded projects are going to be unusable or inaccessible in a few years and a significant investment may be, to a large part, wasted. The quality, usability and re-usability may also deteriorate without the use of standards to find and access these. The management of future digital resource projects may also deteriorate, because the process of putting these projects together is complicated for Arts and Humanities researchers. We badly need centralised support for these kinds of projects.

So what can we as a community do? I don't have any concrete answers because most of them require money and funding that simply isn't available at this time. However, bearing in mind the situation as it stands at the moment, we can, as a community, encourage the adoption of existing community-wide resources, such as this network [Future Histories of the Moving Image Research Network], digital centres of expertise, and Arts and Humanities computing centres, in the hope that they may encourage the adoption and support the adoption of standards for the creation, management and preservation of digital data. As a community, we can also encourage the broadest visibility and re-use of our digital resources by making them useful and by demonstrating the evidence of their value to research and scholarship. We can also encourage collaboration between existing Arts and Humanities computing centres and existing research communities who wish to adopt these resources at this time. With a critical mass of researchers adopting these resources and demonstrating their evidence of use, we may at least have a community that can articulate the problem when the AHRC starts listening.

John Storey: OK, so the next position paper is by Campbell.

Campbell (LuxOnline): Thank you. I'm Campbell and I'm from Luxonline. The presentation is called 'It's all out there, so why aren't you using it?' This is borne out of our experience of working at Luxonline, which is a project within Lux. Many of you might have known the Lux as being part of the Lux Centre in Hoxton [London] and it's now moved to Shacklewell Lane in Dalston. That's where we're located, so for everybody who thinks 'where's the Lux?', it's on Shacklewell Lane in Dalston [London].

Luxonline is an online educational resource about British film and video artists. It's online because we wanted it to be international, and we wanted it to have open access for people who don't normally have access to experimental film and video. That's quite important, because when we did our initial research, people who taught in schools found it very difficult to access artists' work. They found it easier to go down to Blockbusters and get – sorry but you know the guy who gave the Spielberg thing – they found it easier to get his work than to get Jananne al Ani's work. Maybe. So, that was an issue for us, which we wanted to remedy. Also, it came about without funding. We worked in collaboration with the British Film Institute's ScreenOnline, which is the lead organisation for it. The project includes digitised materials from artists – video clips, image galleries from their works, associated metadata, screenings and exhibitions, full bibliography, biographical information and articles associated with their work that we can clear the copyright for to make available online as well. So it gives a kind of comprehensive view of each artist's work and their context. We also commission texts, so it's not just what the artists provide us with. We also make original material to put on the site as well. This includes a commissioned essay for each artist, educational tours that are written by practitioners or teachers around issues of use of film practice, for instance Super 8, setting up a short film festival – things like that. We also have artistic tours, which could be written by artists themselves or curators. The reason why we do this is to give an inroad to people who have no idea what film and video art is. So we use themes and history sections

so that a person who may be a life-long learner, who has no knowledge, who didn't go to art school, can say 'let me look up the theme of body and see what films come up, even if I might not know the name of the artist' and anything like that. So we don't try to exclude people by pre-knowledge of the art world, and that's a big issue for people in terms of the avant-garde. It's like if you're in the know you're OK and if you're not, well then tough – you should have gone to the right art school. And we don't want to generate that kind of privileging of knowledge, so we try to make it as accessible as possible, and have as many user journeys through the material as possible.

Now I want to talk a little bit about databases and the issue of access to information. We used an asset management system. Because the whole thing was about sustainable resources, so I had to think about the fact that we had lots of material and how best to deal with that. We were in a partnership with BFI. Mark [Duguid] is here from the BFI[ScreenOnline], so he'll remember all the discussions we had, and my colleague Lucy Reynolds [LuxOnline] is here as well – she deals with the content. What was great about having the BFI as partners is that they're a big organisation, everyone has heard of them, and they were the lead in developing the asset management system that we piggybacked on. That was great because they commissioned it and everything – that was the pro. But there was also a con – you know, there's no such thing as a free lunch – we all know that right. The con was that, because they were the lead and predominantly although not exclusively so – as Will [Fowler/BFI National Film and TV Archive, Artists' Moving Image Curator] – the material is based on a hierarchical method of filmmaking, so our indexing had to be modified to fit in to their form of categorisation, which we had to work with, and kind of crowbar ourself into their way of categorisation. That was an issue – using a system that had been created for a different kind of art form. The other thing was access – because we didn't have direct access to the database, a lot of things had to be timed through the technical person at the BFI. That's an issue when you're working in collaboration with people – Who has access to the database? How is it secured? and things like that, and that's one of the things that came out of it. But it has been a very positive partnership and it has worked well for us.

That was five years ago – it was 2001 when we started and it's now 2007. When we started we didn't have that many video clips, now we have 98,000 individual video clips. That's just the clips, that just one of assets – I just thought I'd talk about the moving image, as that's what we're here talking about. In that time, the price of hosting has decreased phenomenally. As you know, you can get those stick things for about £20 that you can put into your computer, whereas before it used to be a whole computer that was 1 Gb that you'd have to buy. So storage has gone down in price. We kind of looked around, because we wanted a system that we could use, and house our ever-increasing assets. We chose Apache Cocoon, and that is something that translates from our FileMaker database. At Lux, we use a FileMaker database anyway to store loads of information to do with our finances, contacts – the whole thing. So we decided to keep that because we didn't want to spend more money basically, so that's what we used. Cocoon translates that to an HTML browser. What we've learnt is that, if you want to manage your system, you need something that has access 24/7, and can deal with any file type, because one of the things about storing stuff digitally is that things may change. They've changed in our lifetime with Luxonline – we used to use QuickTime and Windows Media video, and we now use Flash files. You need to ensure that it's scaleable, so if you start small it can increase. Ensure you can customise it. This was the issue with the content management system that we used, Archimedia, which is based on Oracle, which as you all know is not open source. That was an issue because we couldn't customise it – we had to go through the developers. It's important to make sure that it's secure and that it's easy to use. Because of the issues raised earlier about public funding and those sorts of things, we chose open source because there are many people out there who can help us to use it. It just means that we have

flexibility to use it. That's what Cocoon is – Cocoon is open source so we could use it as a holding system. I found another one called Dspace, which is developed free for everybody to use as well.

To answer your question, I think resources *are* sustainable, and I don't think we should panic about it. If cost is an issue, people should form partnerships. One of the things I thought about is that, if you're in a university you have an IT department, and I'm sure there are lots of geeks in your department who programme all the time, who use open source. So you have access to their brains, because I'm sure they'd think it's really fun and important to do this. Be careful that in gathering information and assets you're not duplicating assets globally or nationally. I think it's a real problem when people re-invent the wheel. So they see someone doing something and they think 'I can do it better' (but they do the same thing), then it would be sustainable – but I think it's a ridiculous concept. And filter – decide what's of cultural or financial value, if finances are your priority. In Luxonline we don't include every single asset from the artist – we do filter because we have very limited resources. There are just three of us and the bank of interns that we use. What we're utilising now is Web 2.0 – with the social bookmarks that you can see at the bottom there [projected on screen] – people can click on them and they can do the indexing for us on the web. So we don't provide keywords – I mean they are in the site, but the keywords or metatags are provided by users, so they do the work for us as well. So I would say don't panic – there's stuff out there to use and there are loads of people out there who can help you.

John Storey: Our third position paper will be given by Steven Ball.

Steven Ball (British Artists' Film and Video Study Collection/University of the Arts London): I'll be relatively brief because I sort of stepped in at the last minute, so my paper isn't terribly well developed. In some ways, what I'm doing is playing devil's advocate: I don't necessarily think that this is the best way to go, but I'm presenting what might be described as a 'fully-funded model' for the ongoing sustainability of database projects. This model assumes that individual projects will run discreetly, each as a separate project, which has more or less been the case so far with most of the moving image database projects. Obviously there have been overlaps, synergies and connections, and those overlaps exist in terms of the individual projects' start date, completion date, development and so on. My model is based on the assumption that projects that have arisen and developed with project or resource enhancement funding from the AHRC, have a requirement to be sustained and developed beyond the initial start-up and development period. In effect, these projects never really reach completion as such and do, as Lorna pointed out, require continuous support in order to maintain currency and continued efficacy. The original model that I think Mick [Eadie/AHDS Visual Arts] and Daisy [Abbott/AHDS Performing Arts] put together [for the Future Histories Research Network discussions], in terms of the fully-funded model, described a funded and subsequently self-sustaining kind of consortium of projects. What I'm really proposing is based on the principle that individual projects should receive support to whatever level is appropriate for their requirements. This is a fantasy, this will never happen, but it assumes unlimited availability of funding at the government, Research Council and HEI level. Basically it consists of three components – the first is continuous project funding from the AHRC or similar Research Council funding; the second, which is not always necessarily the case (and certainly not the case where I work), assumes full support from the host higher education institution. I think Campbell mentioned geeks in universities getting to grips with some of these projects, but they kind of don't really see it as their role, certainly not at the University of the Arts London. They're busy with setting up email and server space for their own purposes, not for research projects. The third thing, which is a basic component, is the continuation of AHDS or a similar organisation as a repository for data archiving, preservation and a certain amount of sustainability, as well as an advisory service (which is a very important role it continues to play, although we don't know for how much longer really).

This would consist of some kind of resource sustainability fund, which would be available to projects that have been developed and which would assist the sustainability and continuous development of projects where required. I was thinking of some kind of recurrent funding, which might be a development of the now defunct resource enhancement scheme. I mean, our project at the British Artists' Film and Video Study Collection was developed with three-year resource enhancement funding. I am thinking of something like a resource sustainability fund to complement that, and to carry those projects through to a sort of sustainable level – let's be unrealistic and say indefinitely. Also, this kind of fund should be responsive to the needs of individual projects rather than being prescriptive in its criteria. It is often the case that funding criteria are developed with particular themes and projects in mind, rather than actually being responsive to what is there and what people are doing. In terms of the support of the institutions, the host higher education institutions should support projects by providing infrastructure, technical support (where appropriate) and a commitment to supporting sufficient staffing levels for the project in cases where the staffing costs aren't covered by this fantastic AHRC funding I've invented. In addition to this, there should be a facility for a good level of IT support, including a local institutional repository for the archiving and preservation of the project outputs and assistance with dissemination, such as the provision of or support for appropriate online resources and server provision for both database backup and websites (this also comes from a certain amount of personal experience). The third thing is that there should be adequate support for the archiving, preservation and sustainability independent of the higher education institution, including advice both to projects and to the host institution, so that would be the AHDS type role in this model.

John Storey: Thank you Steven. Our final position statement is by Daisy Abbott.

Daisy Abbott (AHDS Performing Arts): I'm going to make a sort of counterpoint proposition to the last one which assumes that funding is not available for sustainability from the funding council, and therefore must be subsumed into institutional support. I'm going to make the case for moving image and sound material and their associated ephemera to be preserved through collaboration between institutions. Organisations of various kinds would come together to jointly provide access to their expertise and digital assets allowing a single authoritative point of access to a wide variety of data, while sharing the burden of preservation across different institutions. The aims of this approach are to build a critical mass of moving image and sound material, accessible from one place; to facilitate meaningful cross-searching across many different partner institutions; to provide a stable technical environment, which is self-sustaining and available long-term and to allow registered users of collections access to the material and allow them to continuously upload content and interact with the system themselves, providing some automation from the point of view of the system. Steps towards building this consortium for sustainability and long-term access would include identifying the key stakeholders and collection owners and developing terms of reference between them, building up the consortium in a modular way to allow new partners to join and new collections to be made available, and developing a dedicated web gateway that provides access to the consortium's digital content for the long-term.

So here is some of the good stuff about this approach, some of the advantages. This single authoritative point of access would very quickly become the de facto resource for access to digital moving image data, and a single trusted portal would be extremely popular with users. I think this is one of the issues about finding and using material – that there's simply so many little discreet projects all over the place and that users simply don't know where to find half of them. The modular structure of the consortium is extremely robust and institutions can join or leave the consortium without risk to the collections of digital assets or their longevity. A collaborative

approach maximises knowledge transfer between partners and at the same time reduces duplication of effort, which has already been mentioned. Once set up, the web gateway would be intellectually self-sustaining as it would be based on an automated system that requires minimal server and website maintenance. By this I mean that the technical infrastructure would be automated as much as possible, but that the actual intellectual sustainability of the collections would be taken care of by the users who are engaging with them, uploading new content and perhaps making learning objects from existing content and re-uploading them, so it's user-generated content. The consortium and collections would benefit from economies of scale and would agree to share costs. We estimate the costs for the web gateway to be around £6000 per year, which sounds very low, but there's something else coming. About £2000 of this would be for server hosting and maintenance and about £4000 a year would be for a one-day-a-week web-editor just working on fiddling with the website. Of course this doesn't take into account any sort of marketing or outreach for the resource or in fact, once it becomes necessary, any kind of migration of the files. By migration I mean making sure the files are in a position that users can access them.

Collections would be standardised in terms of information retrieval and preservation, which makes them fully interoperable and reduces preservation effort. The benefits of standardisation would also filter back to consortium members and most importantly of all, to the users, for whom standardisation is particularly important. You don't want to have to do fifty different searches for 'body' when you could do one search in a standardised collection of many different institutions' holdings. Developing relationships would encourage – *could* encourage, I don't know if it would or not – further networks or collaborations between consortium members. One thing I think is really important which has come up from listening to other people's talks, is that this consortium would provide the kind of subject specific expertise that your institution and your institutional repository simply doesn't have. I did some research recently into digital collections available in the UK. I did a sort of random sampling of 20 out of the 60 odd institutional repositories that exist. Of the 20 that I sampled, all held PDFs, six held images, two held sound, and one held moving images. And this isn't a technical limitation of an institutional repository – it's the fact that these institutional repositories don't have the necessary staff and the necessary expertise at this time to take in the kind of complex data sets or complex file formats that people like us might need.

So, now the bad stuff. This approach would take a significant investment to set up – we guess around £500,000 and require agreements to be developed between partners which are formal and legally robust, whilst at the same time flexible enough to cope with the differing needs of various kinds of content and content owners. As Campbell said, it's no good if a content owner feels that they're kind of crowbarring their collection into somebody else's metadata schema. I mentioned the ongoing costs – they don't include any kind of activity to actually help the users exploit the material – it's just the simple baseline cost of providing access. I think I've finished now.

John Storey: OK, can we thank Daisy please. We're now going to move into discussion mode. Can I ask that before people make their contribution they identify who they are for our benefit, and can you wait for the roving microphone. So who would like to begin?

Alexis Weedon: I'm Alexis Weedon from University of Bedfordshire. I was very interested in what Daisy was saying about putting together this consortium, and I think your quick survey of institutional repositories does reflect the experience that I've witnessed as well. I've been involved in working with our Learning Resources Centre, as I'm sure many other people have as well, in setting up, under the open access scheme, repositories for publications largely. When I came, as someone from the Media, Art and Design department, and said that we need to put on here the artists' work that our staff are doing, they said 'yes...' But there was this sort of gasp of silence

about how would they actually learn to do it. Having said that, they were very open to it and some of the examples that they then went and looked up, from the Netherlands in particular, did show that a lot of the software they were using could be adapted to enable access. I suppose part of my point is that I don't think this ought to be too separate or too far away from, firstly the open access movement, and secondly the Learning Resources Centres, where we would hope the ongoing subscription budget would come from.

John Storey: Would one of the members of the panel like to comment?

Daisy Abbott: Well, perhaps I didn't say it before but I wanted to just simply say that it's not usually because of a technological limitation of the institutional repositories that they can't accept data – it's simply the fact that if you've got two full-time posts a year and a large database of 98,000 clips say, that's a lot of video clips. So, it's going to take them two or three years to ingest that, which means they can't ingest anything else. So, they're thinking 'where's the benefit for us of this collection?' I wouldn't say it's reluctance on behalf of the institutional repositories in any way – it's simply that they're under-funded to deal with complex data sets.

Lorna Hughes: You probably all know this, but I think it's just worth emphasising that one of the AHRC's justifications for its decision to withdraw funding from the AHDS was that everybody has access to an institutional repository at their host institution, all set and ready to contain that kind of information, which we all know is just not true. And I think that if you parse that decision and look at the real issues, you'll see so many layers at which you can address that point. And as Daisy said, one of the concerns is that there are very, very few institutions with the expertise to provide this sort of support. So, this kind of decision – this kind of blanket statement – is privileging the very few institutions that have the support accessible to them. I think that's a huge problem politically, and one that could be addressed by the likes of the model Daisy is suggesting, where we come together to help one another. I should mention that JISC – the Joint Information System Committee – does have an institutional repositories programme, which is investing quite a lot of money into looking at these questions. They have concluded that these are complicated questions and the solutions have not yet emerged. But I think we have to look to community models to support the different subject areas.

Campbell: Just briefly, I think the points you raised are really good, but I wanted to say that I don't actually come from an institution. We work for an organisation, which is a not-for-profit organisation, and it's through the BFI that we have access to the host at an institution. But I would say that it could work the other way – institutions could work with not-for-profit organisations, particularly with the moving image, that have found solutions in their geographical areas. In a way, it seems to me that there's not enough looking outwards – that the thinking is quite inward – very much along the lines of 'Oh my God, if I don't get the funding it's never going to happen'. But there are ways to start using collaboration and I think people need to look a bit more outwards, rather than be inward-looking.

Steven Ball: I would just reiterate the point that, certainly within the institution I work at, there simply is no repository of any description for digital art content for research projects. Also, from conversations with people at my university, they have no plans to institute such a thing in the foreseeable future, so it's not looking terribly good in that regard.

John Storey: OK, we have a queue now...

Graeme Rigby: Graeme Rigby, Amber Films. First of all, in the scheme of things in history, so much gets lost – it's a random thing sometimes what survives. I don't necessarily understand the intricacies of what happens with the AHRC or any of the other sets of initials mentioned because I'm sort of outside the university world. They've just announced £25m for capital spending on Screen Heritage, which the government is pushing through the Film Council, an awful lot of money – there's revenue and capital money coming through. Some of it will go to things associated with universities and some of it will go to things that aren't associated with universities. Instinctively I don't trust any institution – I would trust individuals working with institutions. So I'm infinitely happier with the idea of artists' film and video being held by somebody like Lux, who, as an organisation, is built around the fact that they love it, as opposed to being based on a university commitment to artists' film and video, where it may be the interest of the particular academic that sustains it, and when that academic goes, it's just going to disappear. I think the point about making a relationship between what's going on in the universities and what's going on in organisations outside universities is really important, because it's only in those kind of relationships that you'll get a kind of stability around the future of these things. Some of them will just disappear – organisationally they will just disappear. So, I would say that you need to have these things in a number of different places.

Daisy Abbott: I might respond with a very small rant that I've had since I took up this post [at the AHDS Performing Arts]. I run the AHDS Performing Arts Centre, which in that context encompasses radio, film and television. From my experience with researchers in universities, what they want is material produced outside universities – they want primary material from filmmakers, from dancers, from the National Theatre. So I couldn't agree more that we absolutely need a consortium, or not even a consortium – I don't want to talk too much about that because I've had my say about it. I think it's absolutely critical in universities to start to engage with people who are actually producing this material which our students study. I completely agree with that.

Mark Duguid: Mark Duguid from BFI's ScreenOnline. I've kind of got so many points, I don't know where to start. Maybe I'll let the debate go on before I talk about some of them. I think that in their own way, both Daisy and Steven were offering kind of utopian ideas, and I would sort of guard against that. Steven, I know you were playing devil's advocate, but we'll kind of put that aside – it's a lovely dream. But I also want to guard against the idea that collaboration and partnership is going to solve all these problems. I mean Campbell will remember the difficulties we had in just finding common strategies between what were originally five projects, which ended up only being two. OK they're both kind of external to higher education, but I can't imagine it gets a great deal easier inside higher education. So I think there are some starting points, but I think you've got to be very careful about overburdening yourself with ambition in terms of finding common goals and common cataloguing systems. Just to go back to sustainability, I would say that historically there might be problems in terms of the funding mechanisms, judging from our own experience. In our case, there was a commitment to sustain the project for three years – this was the New Opportunities Fund, which was awarded in 2001. Three years seems to me to be nonsense and though the two projects we are familiar with are still going, I'm not at all sure about the state of the other 40 odd that were funded out of that project. So I think there's a need for the funding mechanisms to include obligations to the funded organisations to sustain projects for a really significant period, and that means a commitment to future-proof the project, a commitment to format migration – all the sorts of things involved in keeping projects running in the longer term. Maybe others can talk about experiences of projects that folded immediately after the funding ran out. The projects that we're talking about are now running on good will and small money really. In terms of the £25m mentioned earlier, I hope some of it might come our way but we're yet to hear. I know some of it will go to the BFI but I'm only talking about my project. A lot of it is going to the

archive but in a very different way and so far, it's unclear exactly how much. I think we're all waiting for the Film Council announcement on exactly how the money can be divvied up. Digitisation is a lot about preservation and archives as well as access, although hopefully they can access an element always. So that's one point.

One thing I would suggest as a sort of half-way house, if you like, to Daisy's utopia is that, rather than attempting to find commonality of structures, maybe it's more about trying to find tools – trying to develop tools. One of the things our experience has shown, and Campbell touched on this, was how little was available at the time we were looking in terms of asset and content management systems, which was curiously an obligation of the funding we received. I think they had very unclear ideas about what constituted asset management, as I seem to remember from the conference we attended six or more years ago. The tools that were available at the time were pitiful and extremely expensive, and our own experience was not an entirely positive one – that's not just Lux, it's BFI too. So I think one of the things higher education really could take a lead in, is developing open source tools as a way of helping along best practice if you like. But in terms of common cataloguing strategies and that sort of thing, I think it's a terrifying task, and I don't know where you'd start. I mean I was involved earlier with AHDS trying to develop Dublin Core for cataloguing moving image material, and I have to say that my experience of that (and others might disagree) is that it was fairly inconclusive. It got us somewhere, but I'm not really sure how far what was developed there has been applied elsewhere. I'm going to stop there but I might come back in later.

Campbell: Everything you say I would completely validate – in 2001, we could never have envisaged a world of YouTube. When we started encoding video, broadband hadn't quite taken off in the way it has now. The bit rate that we use now is much, much higher, and we're using Flash to encode our videos, so we didn't see the world as it is now. At Lux, what we're doing is using tools that are available out there to help us do the work we need to do, rather than trying to get somebody to build something for us to do it with. We're fortunate that we've got a really good technical manager – Tom [Roberts] – and he brings with him that knowledge of the semantic web and the knowledge of using Web 2.0 applications, although it's not just knowledge but the ability to bend them into the structure that we already have. So that's one thing. The other thing, and I would reiterate this, the point you made about universities working on open source tools. When I've been googling, I came across Dspace, which is in the States and seems to be something that happens quite a lot in North America, but in Britain I'm often quite surprised that we seem to be a bit clunky in our approach to that. That's why I was making the point about collaborations *within* institutions as well, but with institutions making out-roads, looking outside to form those collaborations. I think it would be really exciting, especially if you think about students, who everyone keeps calling the 'YouTube generation', although I don't what that means. I'd rather use a less seemingly age-limited term and describe them as the 'content generation' who know how to utilise the resources that are available and out there, saying 'this is the code, you can tweak it to suit what you want and create something you can use, and it's not going to cost a fortune' and when it comes down to the bottom line, that's what counts as well.

Steven Ball: When you mentioned access, it struck a horrifying chord with me simply because, at the university I'm working in, we were forced to use Access to build our database because there was no other software which would be supported by the university. These were the kind of problems we had – we had no choice basically – that was it, and it was horrendous.

John Storey: Before we have the next question, I'd just like to say that I don't think we should dismiss utopian thinking as a negative thing. The good thing about utopian thinking, as has been

said many times, is that it educates desire and leads people to think outside the box. So let's go on to the next question.

Linda Kaye: Linda Kaye, British Universities Film and Video Council (BUFVC). I was just thinking that what we've been doing for the last seven years comes into providing perhaps another alternative model. Maybe I should just say that we've basically been producing databases and website resources since 2000. We've been the recipients of three AHRC awards, two of which were resource enhancements, and I think one came from HEFCE. So, a lot of the problems people are encountering now with single projects, we've encountered over the last three years in terms of the fact we have maybe eight different databases now, and we're hosting databases and website resources from [University of] Bournemouth and other institutions as well, so there's a collaborative element.

What I wanted to do is to think a little bit more about what we mean by 'sustainable', because the problems we have are not just problems of migration and databases. The thing that I think people forget is the website interface. If we go back seven years to the website we created then, there is no way that we could even think about putting it up now because the expectations of users are so different. So what we have to spend quite a lot of time and effort on, and we don't always have the money for, is to keep changing that website to provide the interaction that our users want and also in adding stuff to your databases because these resources are organic – it is in their nature that they will expand and respond. So, when Steven was talking about sustainability being infinite, in some ways it does have to be infinite, otherwise what we're going to have is little satellites just going up and orbiting the world. We're now looking into getting a content management system which will start bringing together all our different databases, some of which are on MySQL and some are FileMaker. As Mark has pointed out, the big problem we've had is that even though we are a small organisation and we have been very careful in terms of standardising key words and looking for that harmonisation, it's still very difficult even for us, because we have a number of different projects, which are all very individual. We're talking about a newsreel database, a Shakespeare database and then there's TRILT (Television and Radio Index for Learning and Teaching). They are all very individual and have their own very individual terms, so finding those points of contact and similar terms is quite difficult and at the end of the day, you don't want to narrow down your users' options. The utopian vision here is to do with thinking about what our users nationwide will want in ten years' time, and as Campbell has just said, we couldn't envisage what things were going to be like now back in 2000. So a lot of it is just thinking what we can do in the next two years and what we really have to do is think about where do we want to be within the next decade – I think that's the big question. I suppose my closing comment would be that we have expertise where we are at the moment, and there is expertise all around the country. So what we should be doing is forming some kind of network where we can talk about different solutions. I don't think these areas of expertise are linking up at the moment as well as they could do.

Campbell: It couldn't have been said better. I think this is a perfect opportunity for something to come out of this because, when you talked about those eight databases, I was filled with horror actually – it's good that you're planning to consolidate. I think that's precisely what we need – this kind of networking and making contacts with people who might be doing similar stuff and have similar issues. I think the question about sustainability is how can you know? You can't tell the future for one thing. At the Lux, we have been thinking in terms of user-generated content, as Daisy mentioned. However, for us the issue of user-generated content is about moderation and critical judgement. In a way, the Lux brand (if I can use that word) is about having some kind of authoritative voice around experimental film and video. So when people come to Lux, it's not about

the wisdom of crowds, it's about the specific curatorial voice around artists from this country for the most part, and to a lesser extent internationally. So that continues to be an issue for us.

Daisy Abbott: I want to make a point, which is entirely a personal opinion and should not, in any way, be taken to represent the views of my organisation. Given that we couldn't have predicted YouTube ten years ago, I think that in the next ten years we're going to have to start worrying about metadata crosswalks and interoperability between different schemas a lot less because I confidently predict that there will be some really seriously good content-based information retrieval systems for video in ten years' time. I think we'll start to see transcripts of sound from video, so you can search by text – not with subject expertise, but automatic mark-up of video and television programmes. Maybe I'm being a bit too utopian but I think we should maybe just keep an eye on these technologies, especially with infrastructure like the National Grid Service – not for electricity, but for computers (if people don't know what that is come and talk to me later). We're starting to see the opportunities for a lot of really serious computing power, which is what's needed for information retrieval with video in terms of automatic information retrieval. These things are happening and they're happening now. So, I think that in ten years' time they'll be really quite well established. So maybe it won't be such a worry for organisations like the BUFVC and the BFI and hopefully discreet collections will start being interoperable without us having to put so much effort into it as we are having to do now.

Campbell: The other thing is that apart from what keywords you choose, entering keywords is a painstaking process – you could write an academic paper on the semantics of keywords. We no longer do that because our site is indexed by Google. We can't predict what people are going to enter in their searches – that's up to the user as opposed to us dictating. In a way, what you're saying mirrors that. The future is going to be more about sites being searched for specific things or for recognition in a way that allows people to find exactly what they want, as opposed to being able to find only what you put into the site for them to find.

Marcel Schwierin: My name is Marcel Schwierin. I'm from Germany and I'm working for the Werkleitz Gesellschaft,¹ where we are running the Cinovid database. I'm also working a lot as a curator of film and a researcher since maybe 20 years. So, I've been using a lot of databases. I think that with the last point, I'm not really sure whether we can wait for the perfect Google to use our keywords because when I search for works with keywords, I always use a database's because if you mix up keywords in Google, you get completely messy results. So I'm not sure – maybe some day Google or whatever follows will be so intelligent that you can really ask intelligent questions and you can really get intelligent answers, but I'm not really sure about that. The other point is that I would like to bring an international perspective to this. Maybe it's a utopian perspective but I think it's very important that there's international collaboration. One problem that was mentioned is that funding often only goes for three years and then it's over, which is ridiculous for digital resources. The other thing is that the web itself is international, but the funding is always national. We have the problem that our funding is running out and we're trying to find an institution that can keep the Cinovid database since we, as a very small organisation, can't do it any longer. I would like to ask if international collaboration is possible and if it would be an intelligent idea, as we have more and more resources coming up everywhere. Every two months maybe someone comes to me and says 'We want to build a database – can you help us a little bit, can you cooperate?' So I think there should be a European perspective on this and maybe also a European project. I'm sure there would be money available if a lot of organisations joined up to make a kind of intelligent system, which would somehow connect all these database projects.

¹ http://www.werkleitz.de/projekte/emare/archiv_e.html

Lorna Hughes: There are actually a couple of EU initiatives being considered for funding at the moment to support that kind of infrastructure. One of the big problems is that until now the Arts have been left out of these conversations. You know, there's plenty of funding for the sciences and social sciences, but getting the Arts to the table to get a few crumbs of resources has proved very difficult. But yes, there are some EU-wide initiatives that could be very fruitful.

Elaine Burrows: Elaine Burrows representing the University of Westminster. I've just got a point of information to bring up because we've just completed (well, we're in the throes of tidying up the completion) of a three-year AHRC-funded project to digitise and catalogue the Arts Council documentary films (there are about 450 titles). We did quite a lot of that in conjunction with the BUFVC and they've been very helpful. The university has got very excited about the project and is very interested in hosting other collections, so if that solves some problems, talk to me or look at the Arts on Film Archive website² and see what you think.

Lucy Reynolds: My name is Lucy Reynolds and I work with Campbell – I'm the Content Manager for Luxonline. I'm not based in a university – we're an educational resource for university students but we're operating outside of that. We're operating, perhaps like Marcel, within the context of art, artists, curation, distribution and so on. And in this context, one question that keeps coming up for me is what are we storing this for? Who are we sustaining this for? We've looked a lot at how we sustain it in terms of us creating it, but who are our users, and again, will our users be changing? In all the fantastic papers that we've had today, we've had examples of so many different kinds of users and people using material in different kinds of ways. So I think those are debates and questions that we should be sharing amongst ourselves. Like Linda, I would suggest that to have some sort of a network or committee to discuss issues would be very, very useful internationally, and to start to do what we've begun here today. So I would say that we should question our users. I certainly know that for Campbell and I, testing usability on Luxonline – to determine just how useful or un-useful our site is – was a humbling process. Also, like the Linda, we have the issue of having to keep changing it with very little resources, which is possible but we just have to be much more creative in our thinking around these things. I sometimes think that we're like the *Wizard of Oz* – we've got this big front and behind the front, it's Campbell and I and Tom creating all these new tours and adding all these new artists, using technology as creatively and resourcefully as we can. I feel that this is something we can all be doing and sharing.

Rick Prelinger: Rick Prelinger, Prelinger Archives and Library, USA. Wearing my internet archive hat, I thought I'd throw in some issues from the American experience. One of them is the money issue, which is an aspect of sustainability. When we started looking for money to do mass digitisation of books, our founder was very much convinced that Moore's Law would help us by making the digital preservation issue sort of solve itself. So we didn't actually try to look for money for longevity. One foundation which has built a number of really wonderful and ubiquitous subscription-based resources (like JSTOR and ARTstor) said 'Forget it, you need to raise money from your partners for long-term sustainability'. Another foundation (the Sloan foundation) gave us money and said 'You're right, you don't need to worry about it'. There's a very active discussion on Kevin Kelly's blog which just yesterday addressed this issue about the declining cost of maintaining these services and how they will essentially be free – it's worth looking at. The second issue is that in the search for money, you mentioned Google crawling your site. Well, they're a commercial service and they're aren't necessarily our friends. When we come to real resource snags, there is going to be a temptation to sign up with the commercial services. They've already

² <http://artsonfilm.wmin.ac.uk/>

co-opted many people in Europe as well as the States and there may be many people in this room who are under the Google MDA. In the States, there's been a tremendously active movement to try to figure out what the principles are for these kinds of partnerships. I happen to have with me a pre-print of an article that just came out in *D-Lib* magazine about the best practices for these partnerships. It's a really, really good read and it's about maintaining a public sector and a public interest when you have huge amounts of commercial money involved. It's kind of closing the barn door after the books have escaped, but we don't have to do that for the moving image.

Campbell: I wanted to respond to that immediately and say that we're not in partnership with Google – what we try to do is to use the tools out there and the tools might change in a year's time. With the limited resources we have, we just think about what's out there which we can use to increase the usability of our site and to enhance the user experience for our audiences.

Mark Duguid: Mark Duguid from ScreenOnline again. It seems to me that one of the things we might helpfully use as a starting point is to actually define, at a more discreet level, what it is that we want to achieve. Just as a starting point, I can think of five points, which I hope cover most of the ground. That word 'standardise' kind of leapt out at me earlier and it's one of those words that terrify me – I mean the BUFVC's experience with eight databases is I'm sure a nightmare. The BFI's experience with only two major ones is horrific, even though those two databases are in essence principally about the same thing – they're information about film. But if you go deeper, we have one database which some of you might be familiar with because it's now online. It was formally known as SIFT and is now known online as FTVDB (Film and Television Database) – great name! Anyway, that's filmographic information – information about people and information about the films as released. The other database, which is not currently publicly available is known as TecRec and is information about the film and television materials themselves. Just marrying these two databases is a project that has taken a number of years so far. Now perhaps it shouldn't have been that difficult, but it is that difficult. So that's just one kind of warning. Maybe it's better to start at a point where we are preparing for those databases coming into being now, rather than worrying about trying to get uniformity over databases that already exist.

In any case, just to move on from that and talk about interoperability, there is one thing which in a way guarantees a degree of interoperability between sites on the web and that's HTML and XML. So, there is a certain common ground already. I'm not just talking about Google and search engines like Google, but the fact that you can move from one resource to another relatively freely using whatever search tools you happen to rely on, is some kind of cause for gladness. The other thing is that it seems we need to be asking ourselves questions about what our long-term objectives are in terms of some kind of convergence of projects. It seems to me that we've got to prioritise these things and perhaps in some cases strike them out as realistic or worthwhile objectives in the short or medium term. The thing about data standards – the idea of common platforms – seems to me perhaps more viable in the medium term, at least as an objective. The idea of format standards (progress towards certain formats) may be something that can be developing anyway, as happened in broadcasting for example, the way that migration tends to happen as a process of evolution. The most unrealistic thing for me is some kind of standardisation of content. So I guess the point I'm making is that I'd kind of like to differentiate – I think there's a need to differentiate between these things.

Daisy Abbott: I'm sure you didn't mean to imply this, but I'd just like to make a point about standardisation. I'm not talking about standardisation in terms of taking pre-existing collections and sort of squashing them together in a very clumsy way. Sustainability is an issue that shouldn't start when the project has finished and is being deposited with an archive, it should start when you're

thinking about planning the project. It's exactly as you said – that you should look at a schema which is already in use by other collections and with which you might want to be interoperable in the future. To me, that's one of the advantages of bringing together the expertise of all these different people to decide on one best fit, which is also extensible. So, it would hopefully fit the needs of most collections and then once this is done, encouraging people to use it. So, I'm talking about standardisation in terms of standardising at the planning stage, not in any way crow-barring projects in after they've been created.

Linda Kaye: Linda Kaye from BUFVC again (a bit like Mark coming back). One of the things I wanted to raise is the issue of tracking users. As a kind of AHRC recipient, I've always been surprised that we were never required to give feedback on who was using our resource. I mean we can because we have hits on our website, so we could have given them those figures, but we were never required to do so. Perhaps if everyone had been required to do so then there would be a bit more ammunition there. I was just wondering whether other people here take statistics from their users. We have a specialised user-base which we're talking to all the time who tell us when things aren't working, why they aren't working and what they'd like us to do. I wanted to ask whether that feedback is coming back into all these individual institutions and again whether that's something that we can collate ourselves and put back into the pool?

Campbell: Yes, we had to provide statistics – it was part of the NOF (New Opportunities Fund) requirements that we give them this kind of information. Also Lucy does these outreach programmes, and in order to see whether the outreach programmes are effective, we look at whether there's a spike after she goes to talk to an educational institution. There's always invariably a spike from that institution's people using the website. Most of our users come from the United States – surprise, surprise – and most people spend an average of 11 minutes on the site, which is quite a high time to be on a site. There are other detailed statistics that we have – what browsers they use, where they're coming from – that sort of stuff. And we do it for our own site as well to see which of the artists are being most looked at, what video is being most looked at, how do people search to get to our site, what do they use – what words do they use to search to get to the site. So we know all this, although we don't know how they think. It's kind of surprising sometimes the kind of words they use to search for different things.

Lorna Hughes: Can I just say something really briefly about the question of usage, because I think this is really crucial. One of the problems with assessing usage in AHRC-funded projects is that they're essentially research projects so they take three years to develop and then there's a period of adoption and a period of implementation. With most research, if you think about books and things like that, you can't really assess how useful they're going to be when they come right out of the mark. Similarly, evaluating the use of these digital resources is a long-term process. Also, looking at these usage patterns (what are people doing with the data – are they just browsing, are they downloading?) raises fairly complex questions, which are very important. The AHRC's ICT programme did commission two research projects to look at the use of digital projects and the preliminary reports on those two initiatives are available on the ICT programme's website if people want to have a look.³ They include some figures about how people are using these resources.

Graeme Rigby: Just to say, we were one of the other NOF projects and we are still going. We've got the stats packages, although they're not in any way reliable. They give you certain information and you get glimpses of who might be using your website, but the numbers vary depending on which package you use – they can vary between 20,000 a month and 8000 a month. So it's kind of

³ <http://www.ahrcict.rdg.ac.uk/>

meaningless, although it's extraordinarily useful sometimes in terms of getting money, because people are incredibly impressed by the huge numbers of people and where they all come from. I don't think one should believe any of it really – I think it's an interesting area.

Campbell: When you're talking about idiosyncrasy, I think that's one of the things that comes up through the stats. For instance with one of Sarah Miles's films, which Lucy would know the name of, the search that brought it up wasn't Sarah Miles but PJ Harvey. And that's not something that we would have ever thought about if you know what I mean.

Graeme Rigby: I do – that's fantastic.

Campbell: So, in a way these kinds of things that are brought up through our stats are things we always pay attention to, because we think 'OK, this is how some people are thinking'. We would never have thought of it if we'd just looked at each individual.

John Storey: Daisy, you wanted to say something.

Daisy Abbott: Just a very quick point which is that I like idiosyncrasy and I like serendipitous discovery, but I don't think users in general would like to type in PJ Harvey and not find material that is out there on that person. So I think there's a way to support both of these things.

John Storey: OK, question somewhere around there ...

Adam Lockhart: Adam Lockhart from REWIND/University of Dundee. There are a couple of things I've thought about. I really like this idea of correlation – I really do actually – but I was thinking about certain personalities ... and I know certain artists who won't work with certain organisations. So if these organisations were involved, some artists might not want to be involved in the whole correlation thing because of the histories of these organisations. Obviously some people wouldn't want to work with us because of certain personalities there as well, so I think that's certainly a problem that has to be looked at. The other thing is about data, dates and things like that – I've looked at the date of a work in our database, which we've been given by the artist themselves. It might be 1978 or something like that, and then I look at the British Artists' Film and Video Study Collection and that might be 1977, Luxonline says 1976, and then if you look at the tape it'll be 1979. In other words, we need to go through these different databases to make sure the data is right. And this can't be an automated process so it will take a lot of time. The other point is that the funders (whoever that may be) should maybe look at the organisation they're giving the money to and make sure they've got some kind of plan ahead to ensure the resource is sustainable at the end of funding, rather than just going to die, which is going to be a waste of money.

Campbell: In response to the dates thing, as you know, a lot of artists re-work their material and change the dates or even change the date for the same work for whatever reason. But we deal directly with the artists, so if we get erroneous information, it comes from the artist basically – we don't deal through an intermediary at all, we deal with the artist. I think that's an issue for artists' work – it's not so much an issue for places like ScreenOnline in that way.

Mark Duguid: One of the things about the date thing is that there's not necessarily a single definite date – maybe Elaine [Burrows] will remember (I don't) but I think the BFI database works on copyright date, but you could go on release date or on production date, so you've got to know what question you're asking.

Steven Ball: It's certainly an issue for us and I think what this question does do is to indicate that databases do need to be continually sustained, including the kind of practical thing of checking information – it's something we have to do all along.

Lorna Hughes: Can I just follow up on this and talk about what I think is at the crux of a number of these questions. Your question about how do we work with different artists sort of brought the issue of trust to the fore – the fact that these digital repositories must be trusted both by the depositors and their users. The only way they're going to be useful and maintained over the long-term is if that relationship is maintained and nurtured. So, the data must be trusted – the dates and all the other information and the integrity of the information. We must be certain that the information will be continually accessible. I think this is really, really important when we're looking at multimedia archives as well. You know, there are fundamental uses of the data that need to be supported and need to be guaranteed and I think that level of trust will overcome some of the problems of brokering relationships. The other question I wanted to raise was about copyright and that's crucial to the question of trust and is to do with managing and maintaining copyright for the depositors, which is a very, very important part of it.

John Storey: OK, we haven't got a queue anymore – yes.

Alexis Weedon: Alexis Weedon from University of Bedfordshire. I just wanted to go back to one of the things the first speaker said, which I noted down and which was related to the need to think about how the archive can be repurposed in the future for unanticipated uses. That struck a chord because I'm someone who goes to archives and often asks that question 'where is this bit?' that was never kept. I wanted to put that alongside Daisy's very believable and very exciting notion of the access grids and how that is going to actually change the way in which we communicate. Also, you mentioned the thing about automatic metadata for video – if I may, I'd like to push you a little bit on that so we can have a bit of a glimpse of the future. I come from a print history background and one of the things that's very obvious to me is that when you get automatic processes, it does open new vistas for research and for access, particularly with the historical film archive which interests me. So, do you have any insights about how this might happen and what kind of structures have been put in place?

Daisy Abbott: OK, well there are tools which already exist and which can extract edges, textures and so on out of images. Of course, the problem with video is that it's made up of a series of images so it's computationally extremely expensive to run any kind of content-based retrieval software on it and of course you've got the sound layer as well. So I think I need to say, at the start of this, that this needs to be treated with care by researchers. It already happens with the family filters on the internet that too many pinks means that picture gets banned. So, a computer can go 'yes, here are flesh tones and there's a voice speaking at the same time, so I'm going to assume that there's a person on the screen'. This is of extreme use to a researcher kind of getting a picture of the whole collection and very useful for people who are searching for a keyword in addition to something like animal sounds as well for example. But it's of no use whatsoever for any deep scholarly analysis of this material, so I'm not suggesting that it replaces mark-up by experts but it is a tool that we can use. Does anyone want me to talk about the computational grid – do we have time?

John Storey: I'm sorry, we're going to have to move on.

Daisy Abbott: OK, you can have a look at <http://www.ahessc.ac.uk/ahessc-home>.

John Storey: OK, so we're now at that 'respondent' moment where Julia [Knight] has the unenviable twofold task of trying to summarise the key points, and also trying to draw together the key action points. So over to you Julia.

Julia Knight: This wasn't an easy task, so bear with me and if I get anything wrong please correct me. To try and summarise the issues that seem to have come up, for those of us working in higher education institutions, there seems to be an issue around the level of support available for those of us developing these kinds of resources in HEIs, the level being certainly uneven. We've all got different stories but generally the experience can be characterised as a lack of support and expertise. There was an issue again around working with institutions and the fact that there's a greater need for institutional commitment to a longer-term sustainability – that three years' sustainability is just nothing. Also, there were issues around the limitations and the potential of working in HEIs – you can be very constrained with working in an HEI and yet on the other hand, there may be potential there for developing things that perhaps we're not pursuing as much as we should. So that seemed to be one set of issues about developing these resources within higher education institutions. Linking in to that, there was the issue of the extent to which we are or we should be developing relationships between those of us working in higher education institutions and those of us working outside of higher education institutions – that maybe we're not exploiting the potential there as much as we could be. ... There's also an issue that I think is worth flagging up, which was made by a couple of people, around the fact that some of these projects are surviving on good will and very little money. I'm not sure whether this is good respondent behaviour or not, but I also wanted to interject that there's a difference (I perceive a difference) between those of us working in higher education institutions and those of you working on projects outside HEIs. Although you may be working with very little money, you are working in a situation where you're primarily working on that resource, whereas often for those of us working in higher education institutions, it's one small part of our work so we can't devote the same amount of time to it. So that's my two-penny-worth.

There was another issue that came up for discussion around developing common tools, common strategies and harmonising between databases. This kind of fed into the discussion around 'where do we want to be in ten years from now?' which also linked into the discussion around how the technology is going to develop. There was a suggestion that maybe some of the problems we're having now may become resolved over the course of time as technology develops. There seemed to be a general consensus that there's an issue, at this point in time, around integrating and harmonising between databases and getting that kind of cross-functionality. There was also discussion around the need for networking – on the one hand, networking between the projects and linking them together, but also networking to bring together expertise. That also linked in with the question of trying to develop or feed into a European initiative, which would network, link together and support these resources – maybe the setting up of an international network to discuss these issues and try and link together.

There was also the issue that then started to come up around usability and tracking user behaviour – questions like do we know who our users are? Do we know how they're going to change? This raised the need to keep updating our resources in order to take on board changing users and changing usership patterns. This linked into the issue about how we monitor that usage and how useful this statistical information is. What information does it give us? Do we need different kinds of information as well? The degree to which such information is useful for raising funding was also raised. There's also the issue (which kind of comes back to the funding thing) around the continual need for updating and for checking the material and the information on the databases, which I think is a huge resource issue. I think the last issue that started to be discussed was around the issue of trust. In a sense, that obviously relates to the issue raised about the need to keep updating and the

organic growth of these resources and to continue checking the accuracy of the information. So, it was about trust between the people producing the resources and the users of those resources. I think those were the main issues that seemed to have come up. Do say if I've missed anything.

What's less easy is to try to identify action points, but the one thing that seemed to come out of the discussion was the need for some kind of networking, specifically European and international networking. Thinking on my feet here, the best thing I can suggest at the moment to take out of this forum discussion is that I try and compile these notes and circulate them around the delegate list, maybe with suggestions about how we can develop such a network. We can see who wants to participate in that and perhaps have something organically grow out of this. Does that seem reasonable?

John Storey: It seems perfectly reasonable. We're going to have to bring things to a close but before we close, I just want to thank various people who've made this session work the way it's worked. First of all, can we thank John [Parks] for technical support, as well as Chris and Michael who were the roving microphone people. And can we also thank our panel of experts and thank Julia for the very difficult job of doing what she's just done.

[Transcribed by Maisoon Rehani]