# The Open Access Interviews

Richard Poynder talks to Bill Mortimer, Research Support Librarian at the UK's Open University

One of the primary tools of the Open Access ( $\underline{OA}$ ) movement is the institutional repository ( $\underline{IR}$ ) — a freely-available web-accessible database in which university faculty are able to deposit their research outputs, notably papers that they have published in scholarly journals, and also books and book chapters.

The genesis of the institutional repository can be traced back to a 1999 <u>meeting</u> held in Santa Fe New Mexico, where the so-called Open Archives Initiative Protocol for Metadata Harvesting (<u>OAI-PMH</u>) was formulated. The aim of the meeting was to create an infrastructure that could build on the success of the physics preprint repository <u>arXiv</u>.

Founded by <u>Paul Ginsparg</u> in 1991, arXiv had become an important resource for scholarly communication within the physics community, and there was a growing desire to replicate the model in other disciplines. During the Santa Fe meeting a strong case was also made for creating institutionally-based repositories that catered for all research areas in a single university, and over time the IR has become the dominant repository model. However, the primary aim of the Santa Fe meeting was to create a protocol to make repositories interoperable, regardless of whether they were central subject-based repositories or institutional repositories.

Why the need for repositories? After all, scholarly communication was outsourced to publishers long ago. The appeal of the model arXiv pioneered, however, was that it exploited the ability of the Internet to allow research results to be communicated much more rapidly than was possible with traditional publishing — where publishing a paper in a scholarly journal or book can take many months, or longer, a researcher can deposit a paper in an online repository the moment it is completed.

More importantly, traditional scholarly publishing was in crisis. Since the end of WWII an explosion of new scholarly journals, constantly rising subscriptions, and falling library budgets, had created a situation in which universities and other research institutions could no longer afford to buy all the journals their researchers needed. Moreover, even though publishers had begun migrating their journals to an online environment, subscription prices were not falling (as would have been expected, since traditional costs like printing and physical distribution go away on the Internet), but inexplicably continuing to rise. The suspicion was that the fundamental problem was publisher greed.

It should be noted that arXiv was intended to supplement the traditional model (by sharing preprints prior to publication), not to replace it. Nevertheless, its model was sufficiently compelling that some also viewed it as a solution to serial price inflation, and had begun to <u>call</u> on colleagues to make copies of all the papers they published in scholarly journals freely available on the Internet, by <u>selfarchiving</u> them. If every researcher did so, it was reasoned, the research community's access problem would be resolved.

<sup>&</sup>lt;sup>1</sup> Several new central subject-based archives have subsequently been created, most notably the US <u>National Library of Medicine's</u> biomedical and life sciences repository PubMed Central (<u>PMC</u>), created in 2000. But institutional repositories are increasingly viewed as a better model, and the centralised model has been <u>criticised</u> for (amongst other things) not providing a scalable solution.

Again, the aim was still not to replace traditional publishing but to supplement it. In fact, the objective was quite simple: If researchers belonged to an institution that subscribed to the journal in which a particular paper they needed had been published they could access the publisher's version of the paper using their institution's subscription. If, on the other hand, their institution didn't have a subscription to the journal in question, they could use the author's self-archived version. In this way, it was assumed, all 2.5 million articles published in the world's 24,000 scholarly journal each year would be freely available to all — in one form or another.

It was apparent, however, that if researchers simply dumped their papers hither dither on the Internet it would be difficult for others to locate them. What was needed was a custom-built software platform to allow universities to create a dedicated repository in which faculty could archive them. And as the emphasis shifted from central subject-based repositories to smaller cross-disciplinary repositories, it was realised that a low-cost solution would be needed. In 2000, therefore, the UK's <u>University of Southampton</u> released <u>EPrints</u>. The first dedicated repository software, EPrints was made available as freely downloadable Open Source software.

Importantly, EPrints was OAI compliant — which meant that EPrints repositories could expose standardised metadata descriptions of their contents on the Internet. These could then be collected by specialist harvesters and aggregated into a virtual cross-searchable global archive offering a single search interface. When a search was conducted the hits would then link back to the source material in the host repository. To this end in 2002 the University of Michigan launched the first OAI harvester, OAIster.

But while the objective of the self-archiving movement may have been simple, implementation has proved enormously difficult, and nine years after the Santa Fe meeting only around 1,000 of the world's 22,000 research institutions have yet to create an institutional repository. Moreover, those who have done so generally discover that only about  $\underline{15\%}$  of their researchers will spontaneously deposit their papers in them.

In short, the IR movement has been confronted by a number of unanticipated challenges. First, as indicated above, it has proved immensely challenging to persuade researchers to take on what most quickly conclude is a thankless and burdensome additional chore. Second, getting senior management to support self-archiving, or provide the necessary funds to create and manage an IR, has proved nearly as difficult. Third, many publishers have sought to obstruct self-archiving, fearful that if free copies of the papers they publish become widely available on the Web their subscription revenues will dry up.

Since scholarly publishers have historically made it a condition of publication that researchers assign copyright to them, they have had a strong hand to play. By insisting on copyright transfer they effectively acquire ownership of the papers, and many have either refused to permit self-archiving, or insist that authors only do so after an embargo period.

In recent years, however, effective lobbying by OA advocates has begun to make some headway. Increasingly conscious that they are generally ignorant about the research output of their own faculty, for instance, university managers have begun to warm to suggestions that institutional repositories are the natural tool to collect the kind of management data they need if they want to monitor the productivity of faculty.

OA advocates have also had some success in convincing research funders that in a digital environment publicly-funded research should be freely available to all, not locked behind financial firewalls whose only purpose is to protect incumbent business models. After all, point out OA

advocates, most research is publicly-funded, and authors give their papers to publishers without charging them. Why then should the research community have to buy its papers back in the form of journal subscriptions? Would it not be better, they argue, if publishers found a business model more suited to the networked world?

In response, funders have started to introduce self-archiving mandates, making it a condition of funding that research outputs are made freely available on the Web. In other words, if researchers won't self-archive willingly, let's make them do so.

To date 21 funders have mandated public access to research findings, including the UK-based Wellcome Trust, the US National Institutes of Health (NIH), and all bar one (the EPSRC) of the UK research councils. In addition, 19 universities have introduced *institutional* mandates, and major universities like Harvard and the University of California are currently considering doing so.

But progress remains slow, and many hurdles remain. There have also been some unintended consequences: After convincing university managers to adopt IRs, for instance, OA advocates have discovered that in many cases it is only bibliographic data that is being deposited, not the full-text. Since metadata is all that is required for information management purposes, and limiting deposits in this way avoids any risk of getting into copyright disputes with publishers, it is not perhaps surprising. From the point of view of Open Access, however, it is a most unsatisfactory development.

#### ##

But how do things look on the ground? To find out I sat down recently with Bill Mortimer, Research Support Librarian at the UK's <u>Open University</u>. An advocate for Open Access, Mortimer has played a key role in the development of the OU's repository, Open Research Online (<u>ORO</u>).

What became evident during our conversation is that the OU's experience maps neatly onto the history of the self-archiving movement. As in many universities, the library created an institutional repository some years ago, but struggled to persuade researchers to deposit their papers in it. Without the necessary funds to continue supporting ORO, the library was then forced to put it on the back burner for a while. After Mortimer was appointed, however, the OU's Pro-Vice Chancellor for research was persuaded to adopt ORO as a central resource for the upcoming Research Assessment Exercise.

As a result ORO experienced a rapid growth in the number of deposits and today, says Mortimer, it is the fourth largest repository in the UK. But like so many repositories the bulk of the content in ORO today is metadata, and just 15% of its records consist of full-text.

As I talked to Mortimer it occurred to me that the OU's commitment to Open Access is interesting for a number of other reasons. Its philosophy, for instance, is well matched with the values of Open Access. Founded in 1969 by the then Prime Minister <u>Harold Wilson</u>, the OU's mission is to be "open to people, places, methods and ideas." As Mortimer puts it, OA "fits the aims and ethos of the OU like a glove."

The OU might also seem to have more to gain from Open Access than most universities — for while it is widely recognised (and globally respected) as a distance-learning institution, the OU is not well-known as a research institution. What better way of demonstrating its credentials, and showcasing its work, than by making its research freely available on the Web?

It also struck me that as a provider of remote education the OU is at the forefront of a much larger revolution, a revolution of which OA is but a component part — that is, the gradual "virtualisation" of education and research. From the outset, for instance, the bulk of the OU's teaching has been delivered virtually — initially via television and radio, later online. And today some of its courses are run entirely on the Web.

As research papers make the transition from physical objects to electronic files located in disparate online databases, scholarly communication is going through a similar process of virtualisation. And here too Open Access is just one piece of it. Today journals are not only accessed electronically, but the entire publication process is becoming virtual, with many parts of it now automated. Papers are submitted online, peer review is managed and undertaken online, and many journals no longer have any print equivalent.

Indeed, some argue that, as a result, the traditional gate keeping role played by publishers is fast becoming redundant, much in the way that the lecture hall is redundant at the OU. Within this larger revolution Open Access starts to seem like an alternative to traditional publishing, not a supplement.

It was no surprise to me, therefore, to learn that the OU has begun to develop its own Open Access <u>ejournals</u>. Nor was I surprised when I asked Mortimer if he thought that ORO might in the future be viewed as more of a publishing platform than a database of research outputs that he so readily agreed with me.

Publishers, however, are not the only gatekeepers in the scholarly communication process. So too are librarians. The question inevitably arises: Could the bricks and mortar library eventually go the way of the paper journal?

As one might expect, Mortimer has views on such issues, and it was interesting to discuss them with him. In the process, however, he revealed himself to be a serious-minded but modest interlocutor. And while he has undoubtedly given a great deal of thought to Open Access, and to the implications for librarians of the brave new electronic world, he was keen to stress that he is a practitioner, not a theoretician.

In short, Open Access is for Mortimer primarily a pragmatic issue. As he pointed out, his job is to ensure that OU faculty have access to all the research they need, not to promote causes. It just so happens that Open Access currently offers him the best hope of achieving this. Indeed, I formed the impression that, while he is happy to discuss radical future scenarios, Mortimer is in many ways a traditionalist, and were journal subscription costs to suddenly plummet, to a level where the OU could provide faculty with all the research it needs, Mortimer would be more than happy to reembrace the traditional subscription model.

Given this pragmatism it is interesting to note that, with his colleagues, Mortimer has recently suggested to OU management that the University introduce an "Immediate-Deposit/Optional Access" (ID/OA) mandate. The ID/OA mandate is a compromise strategy intended to force researchers to self-archive, but in a way that circumnavigates publisher opposition, and avoids any potential copyright disputes with them. And it is able to facilitate Open Access even where the full-text is not accessible on the Web. In short, it promises a very practical solution to the many hurdles currently besetting Open Access. It is no surprise, therefore, that it should appeal to a pragmatist like Mortimer.

It would be the next logical step for the OU to adopt such a mandate. But will it happen? When I spoke to Mortimer no decision had been made, but he stressed that senior management is "actively considering" the idea.

If you would like to learn more about the Open University and the development of Open Research Online, or are curious as to how an ID/OA mandate would work please read on.<sup>2</sup>

<sup>2</sup> If, however, you would prefer a more digestible article try the *Computer Weekly* website.



# The interview begins...

RP: I have always thought of the Open University as a distance-learning institution devoted exclusively to teaching undergraduates. But that's a misunderstanding on my part isn't it?

BM: Yes, it is a common misunderstanding. We also have an active research community on campus.

#### RP: But most of the teaching is done remotely?

**BM:** Yes. The undergraduate courses are delivered remotely, and it's very rare for undergraduate students to come on to the campus. When a physical seminar takes place it happens in one of the OU's regional centres, or in a local further education college. In fact, some of the courses are run 100% online nowadays.

## RP: Nevertheless you have a reasonable-sized central campus here in Milton Keynes?

**BM:** Well, all the course production is done here. And, as I said, our research community is based here. The way to think about it is that unlike other universities — where faculty split their time between teaching and research — the split at the OU is between research and course production. The course production is teaching. It's just that it is done remotely.

Indeed, the OU's course materials are widely recognised for the expertise that goes in to them, and so the link between research that faculty are engaged in and those course materials is very important. By combining both aspects the OU is able to keep the course materials on the cutting edge of knowledge.

#### RP: How many undergraduates are there?

**BM:** Currently we have around 218,000.

#### RP: They are not all based in the UK presumably?

**BM:** No. Approximately 165,000 of them will be British. In addition we have around 11,000 EU students and 10,000 from other parts of the world. There are also 32,000 students from <u>Validated Institutions</u>. So we are truly global, and have a division called OU Worldwide to promote the OU abroad.

RP: The OU's web site states that its mission is to be "open to people, places, methods and ideas." The term open here implies open to everyone I assume?

**BM:** Very much so.

RP: Unlike most universities, therefore, applicants are not required to have <u>A-levels</u> to gain a place?

**BM:** No they don't have to have A-levels. However, we do run introductory courses, after which students can decide whether they want to carry on to diploma level, and subsequently to a full Bachelor of Arts or science degree.

#### RP: Does the OU have postgraduate students?

**BM:** Oh, yes. We have a whole range of masters' courses, and there is a community of full-time PhD students based on campus. In that sense we are more like a traditional university.

#### RP: How many postgraduates are there?

**BM:** At any one time we will have around 500 full-time PhD students, and probably another couple of hundred part-time students. As you can see, research is a key part of what happens at the OU.

#### RP: So how many researchers are there at the OU?

**BM:** We have approximately 1,000 research-active staff today.

RP: And in order to share their research with the wider research community OU researchers also produce books and journal articles presumably?

**BM:** Absolutely, and we estimate that between them OU researchers produce well over 1,000 books, book chapters, and peer-reviewed journal articles each year.

#### RP: Would you say the OU's faculty structure was similar to a regular university?

**BM:** Yes. We're fairly typical in the subject areas we cover, although there is an emphasis on distance-learning pedagogy. As you may know from our involvement in the recent <u>Mars mission</u> we are renowned for our space science research, but also internationally recognised for our research in arts, social sciences, technology, computing and business and management.

#### RP: Is the OU funded in the same way as other UK universities?

**BM:** One key difference is that OU students pay per module, rather than for a year's study. Consequently we don't currently have <u>top-up fees</u>. I think that would be the key difference when it comes to funding.

RP: What about the Research Assessment Exercise [RAE]: Is that as important a source of funding for the OU as it is for other universities?

**BM:** Absolutely. It is extremely important. We hope to see some high profile ratings in the RAE 2008 submission we made last November.

But it's not just about funding. The RAE also has strategic importance, particularly in terms of reputation. In fact, you could argue that that aspect of the RAE is more important than the funding element.

# **Virtual library**

RP: I'm conscious that we are sitting in a large modern library. But I would think that the role of the library in a distance-learning institution is somewhat different to a regular university.

**BM:** Yes, and the key difference lies in the fact that the undergraduate population isn't on campus. So as with the teaching, much of our support is provided remotely. Of course our academics and our postgraduate community make full use of the physical library here at Milton Keynes.

#### RP: We are talking about "virtual librarians" working with students online?

**BM:** We are. But we provide two different types of support. First, we work with the course teams, helping them integrate electronic resources and information literacy into the hundreds of different courses run by the OU. Second, we provide remote support for the students when they are doing their tutor-marked assignments.

RP: When you say support, you mean that you direct students to information sources, much like any librarian, but remotely do you?

**BM:** It's not just a matter of directing them to information. As many of the OU courses have information skills embedded in them it is part of the library's job to encourage the students to develop their own information skills through the course material. We don't want to just feed them with the course materials.

#### RP: How do you provide this remote support?

**BM:** By email, and by phone, but also instant messaging and web chat — which is very popular. I work on the virtual helpdesk a couple of times a week and I really enjoy having a connection with students that are all round the world.

#### RP: How do the OU's library holdings differ from a regular university?

**BM:** Well, one difference is that we don't have to provide multiple copies of text books to support on-campus courses. So our book collection is more research focused than you would see in a normal university library. And we have developed a very comprehensive electronic library that we are adding to all the time.

#### RP: What about journals?

**BM:** There we are more typical as the journal collection is intended to support the undergraduate population as well as researchers and postgraduates.

RP: This would be because most scholarly journals are now available electronically and so undergraduates can access them online using an OU ID?

**BM:** Yes. About 10 years ago it was decided that there was enough electronic information available to allow the library service to be rolled out to undergraduates as well.

RP: So OU undergraduates can access services like <u>ScienceDirect</u> from wherever they are based in the world, as if they were accessing them on campus?

**BM:** Precisely. And in total they have access to around 250 different databases today. These are largely journal databases, but we also have some eBook services.

RP: I'm guessing that with 218,000 students the OU's journal subscription bill will be pretty high?

**BM:** It's currently being re-negotiated. The principle we are working to is that the subscription level should be roughly on a par with the biggest UK universities — <u>Manchester</u> for instance.

RP: Manchester has 40,000 students, not 218,000.

**BM:** True, but not all our modules have information skills embedded into them. In terms of hits it is estimated that usage of the databases will be comparable.

RP: How much does the OU pay for its journal subscriptions then, and how has the figure changed over time?

**BM:** Our electronic-only subscriptions today come to approximately £997,000. This compares to around £284,000 in 2001. We also pay a subscription agent for the print journals we still take, many of which have an electronic counterpart. The cost of that is roughly the same as our total electronic subscriptions spend.

RP: So over the last seven years the OU's electronic journal subscription costs have risen from £284,000 to £997,000. In addition, you pay an equivalent figure for the journals you continue to also take in print — giving the OU a total bill of around £2 million a year for its requirements?

**BM:** That's roughly it. And that figure has to be seen in the context of more and more academic journals and journal articles being published every year. This means that the OU is only able to subscribe to a percentage of the total amount of journals being published, a percentage that is not rising as quickly as the budget.

RP: So like many universities you find yourselves constantly having to pay more for less I guess. For purposes of comparison the largest US university — the University of California [UoC] — spends \$27 million a year on licensed content. That's nearly 7 times as much, and so gives a sense of how much the OU could be paying if money was no object.

BM: Yes, although I'm not sure how many students the University of California has.

RP: Around <u>214,000</u> I believe, so fewer than the OU. On the other hand, there are around 16,000 faculty and researchers at UoC.

BM: OK.

#### **Institutional Repository**

RP: What we learn from this, however, is that like every other university, the OU is in the grips of the so-called <u>serials crisis</u>. As more and more journals are produced, and the cost of subscribing to them continues to rise, universities can no longer afford to purchase all the journals they need.

Even large US universities like the University of California, Stanford and Cornell have had to cut their subscriptions in recent years.

And out of this has developed the <u>Open Access</u> [OA] movement. OA comes in <u>two flavours</u>. There are those who promote the gold road to Open Access, and argue that scholarly journals need to make research freely available on the Web. One way of doing this, they suggest, is to charge to publish papers, rather than charging a subscription to read them — a model pioneered by Open Access publishers like <u>Public Library of Science</u> and <u>Biomed Central</u>. By contrast, those who support the green road to Open Access advocate that researchers continue to publish in subscription journals, but then self-archive a copy of their papers on the Web as free supplements. This, they say, will ensure that researchers whose institutions cannot afford to subscribe can still access them.

BM: That's right.

RP: The problem with the gold road is that there are still far too few gold journals, and it will take a long time to convert the world's 24,000 journals to an OA model. For this reason a growing number of institutions are opting for the green model, and they are creating institutional repositories (IR) to enable their researchers to make their papers freely available on the Web. The OU created an institutional repository several years ago I believe?

**BM:** Yes. The OU's repository was created by the science librarian about five years ago using the <a href="EPrints">EPrints</a> software that was developed at the <a href="University of Southampton">University of Southampton</a> — and was named OU EPrints.

RP: OU EPrints was a library initiative then?

BM: Yes.

RP: Did researchers respond well to it?

**BM:** Not at first. It grew very slowly, and attracted only about half a dozen items. It was also a discrete project that lasted only a couple of years. During that time it became clear that the science librarian wouldn't be able to carry on supporting it once the project finished.

However when I was appointed (in 2005) time was specifically allotted to work on the repository, including actively promoting it to faculty. As a result we began gradually to build up the number of deposits.

But it remained hard going. There were always people who were very enthusiastic, but it was very difficult to get beyond the core supporters.

RP: Perhaps because you were asking busy people to take on an additional task, mainly for the benefit of non-OU researchers?

**BM:** Actually, at that stage we were focused on a mediated deposit process, so we were not asking a lot of them. In fact, we would offer to go over to researchers' PCs, look for the Word documents in which they had written their postprints, and then help them to turn those documents into PDFs. But despite that, it remained a slow, laborious process to get them to co-operate. Things finally improved when the new Pro-Vice Chancellor for research — Brigid Heywood — was appointed.

#### RP: In what way did they change?

**BM:** In 2006 it was decided to develop the repository to support the RAE submission process.

#### RP: The purpose of the repository changed?

**BM:** Well, it was still viewed as a way of enabling Open Access, but it was decided that the repository should also be used as a management information tool to support the RAE, and as a promotional tool.

#### RP: When you say promotional tool you mean to showcase OU research to the outside world?

**BM:** Correct. It was felt that this was important for the OU because it is not widely appreciated that it is a research university. So a key part of the strategy was to make people aware that the OU doesn't just teach distance learning courses, and that these courses are in any case put together by people at the cutting-edge of their research field on the international stage.

As I say, the original aim of ensuring that external researchers were able to gain access to OU research papers remained important, but we wanted to increase its visibility at the same time.

#### **Research Assessment**

# RP: And, as you say, the decision was also made to use it as a management information tool for supporting the RAE.

**BM:** Correct. And so at that point the repository underwent a major reincarnation: We upgraded the software from an early release of EPrints to the latest version and renamed the repository Open Research Online (ORO). Since then we have worked very closely with the Research School, and my work became focused around the RAE.

Consequently one other thing we did was to install an RAE plugin developed by the University of Southampton.

#### RP: What was the aim of the plugin?

**BM:** It allows reports to be generated from the repository that can be imported directly into the RAE data collection software, thereby providing a direct link between the research publications data held in the repository and the data submitted to the Higher Education Funding Council (<u>HEFCE</u>) as part of the RAE submission.

#### RP: To what end?

**BM:** It allowed our panel coordinators to get a bird's eye view of the OU's research output and so undergo an initial internal assessment process in order to focus on the items that they wanted submitted to the RAE. Essentially it makes it much easier to have a mock RAE, which most universities now run.

RP: Ok, so the point here is that every academic has to submit four research outputs for the RAE. Since some will have published more than four it is important to choose the ones that will maximise a department's chances of a high score. By importing data from ORO into the HEFCE software, presumably, the OU was able to run "what if" scenarios?

#### **BM:** Correct

# RP: And it was the new pro-vice chancellor who made the decision to use the repository to support the RAE was it?

**BM:** Actually a number of people in the Research School had already concluded that we needed a better handle on the OU's research publications data. But when she arrived, Brigid decided that something needed to be done quickly if her team were to have the information they needed. So she put her weight behind the initiative. And about the same time it was realised that the library already had the beginnings of a research publications database, and so could be used in a more strategic way.

#### RP: What other solutions had been considered?

BM: One option they had looked at was to create a database using bibliographic software.

#### RP: How would that have worked?

**BM:** There was discussion of using a large EndNote library of all the OU's research for instance. That would have been a quick and simple approach.

# RP: Instead they decided to use ORO. Was this the point at which senior management bought into the institutional repository?

**BM:** It was certainly a key moment in ORO's development.

#### RP: What were the implications for ORO being adopted by the Research School?

**BM:** At the time there existed a patchwork of departmental databases of research outputs, but no central resource. So what it meant for ORO was that we were able to add a lot of data very quickly, and between January and July 2006 we added approximately 2,000 to 3,000 items to ORO. So it allowed ORO to grow substantially in a very short space of time.

#### RP: Was the harvesting process relatively straightforward?

**BM:** No. There were around 12 departmental databases in the University, all using different software and all at different levels of completeness. We also found that some of them weren't able to do automatic export. But with a lot of support from the Computing Services department, and some expertise from Southampton, we were able to import the data from about half of the existing databases. We also had to quality check the data as it went in by first putting it in a buffer.

# RP: So by piggy-backing on the RAE you were able to gather a lot of data for ORO. Would it be accurate to say that the RAE became a Trojan Horse for furthering the objective of providing Open Access?

**BM:** In some ways, because many researchers no longer distinguish between the RAE 2008 database and ORO. Consequently, the RAE effectively became advocacy for Open Access, and since our researchers wanted their work to be considered as RAE submissions they were more receptive when they were asked to deposit all the peer-reviewed research they had produced during the period of

the RAE into the repository as part of the RAE process. So today senior management are committed, and I think early-career researchers are also now quite comfortable with the depositing process.

Nevertheless we are still having to engage in a long-term advocacy program, and advocacy remains very much an ongoing task. Converting mid- and late-career researchers remains a big challenge, and from my perspective the greatest task remains that of raising awareness amongst researchers of the link between putting their papers into a repository and enabling Open Access.

# **Advocacy**

#### RP: How do you go about doing that?

**BM:** Mainly by advocacy, going to departmental and faculty meetings and giving presentations on Open Access, and showing them the ORO interface etc. And I tell them that making their papers Open Access is in their own best interests too, since it leads to an increase in citations — something that has been demonstrated by a number of different studies. I also point out that the principle of Open Access fits the aims and ethos of the OU like a glove.

RP: That would be the "open to people, places, methods and ideas" ethos then?

**BM:** Exactly.

#### RP: I'm guessing that it still remains a challenging sales pitch?

**BM:** True. While the majority of OU researchers are theoretically very positive about the idea of providing access to OU research to those whose library may not have the necessary subscription, the challenge lies in getting them to then go off and find the appropriate postprint versions of their papers, and deposit them in ORO. So while there is often a quite positive theoretical response, researchers often fail to take the necessary action. Other priorities seem to take over.

On the other hand, there are also some who become really motivated, and become evangelical about Open Access. We also occasionally have researchers who, "I have been depositing my research on <a href="markiv">arXiv</a> for the last 15 years. Why are you asking me to duplicate my effort?"

RP: arXiv, of course, is the physics preprint server created by <u>Paul Ginspara</u> in 1991. But how do you respond when researchers say that?

**BM:** We remind them that in addition to being a member of the physics community they have an identity as an OU researcher, and that if they only deposit their papers in a central database like arXiv they are failing to support their department, and help maintain it to create an effective online presence.

We also point out that they have to do all the work when depositing in a central database, whereas we are able to manage the process for them. And we remind them about the citations advantage, and point out that even if their papers are already on arXiv they can expect to increase their citation count if they also deposit in their institutional repository.

#### RP: And of course by depositing in ORO they can help the OU to track its research output?

**BM:** That's right. So while I wouldn't want to stop anyone from using a central service, we would prefer they also used ORO.

# RP: Is it only research papers and books that are deposited in ORO, or other types of information too?

**BM:** In the short term the focus really needs to be on papers and books, and that is all that we deposit. Personally, however, I'm very keen to get to the point where we also encourage the deposit of eTheses too.

#### RP: So clearly you don't archive the data that is collected during the research process?

**BM:** Not at the moment. We are aware that it is an issue, that there is a value to these data sets, and that we might need an electronic content management system for housing them in the future, but it's not something that we are doing at the moment. Quite frankly we haven't got around to discussing data yet.

#### RP: In fact, most of the content in ORO is in PDF isn't it?

**BM:** Yes. Pretty much everything is in PDF, partly because PDF is a non proprietorial format that can be accessed by everybody.

#### RP: Might that change. Semantic Web enthusiasts tend to be critical of PDF.

**BM:** Yes, I can see that there are good arguments for also having XML versions, and when the next release of EPrints becomes available I suspect we will have another discussion about formats.

RP: As I understand it, ORO currently has around 7,000 items deposited, and another 1,000 new items are input each year? You said earlier that the OU produces over 1,000 new research outputs. Can I assume therefore that all OU research is now being capture by ORO?

**BM:** We can't make that assumption. One of the driving forces behind the repository is to try and find out, so that figure is really only indicative. However, I would think that we are capturing between 70% and 80% of the OU's research output now.

# RP: How would you say that ORO compares with other institutional repositories in terms of deposits?

**BM:** Last time I looked at the <u>ROAR</u> league table it was the fourth largest UK repository. I think numbers two and three are both at Southampton University, which has both a departmental and an institutional repository.

RP: For purposes of comparison, the largest UK institutional repository is Cambridge University's <u>DSpace repository</u>. That has approaching 19,000 records. Another figure to look at, I guess, is the download count. What are the numberss for ORO?

**BM:** The average count is currently running at around 6,500 unique visitors a week, and the cumulative figures since November 2006 is around 26,000 downloads.

RP: Again, for purposes of comparison, the University of California's <u>eScholarship</u>, repository recently <u>celebrated</u> its 5 millionth download, and in total has round 20,000 items deposited.

**BM:** Well we may have a few more undergraduates than the University of California, but they have a great deal more researchers. So perhaps that comparison isn't that helpful.

#### Sacrificed?

RP: Another interesting figure, perhaps, is that currently only around 15% of the records in ORO contain full-text documents. How does that compare with other institutional repositories?

**BM:** I believe Southampton has achieved a figure of 30% full-text. And that is the ratio we hope to achieve this year for ORO.

RP: I'm wondering if this is at least partly a consequence of ORO being adopted by the Research School. Presumably all that is needed for RAE purposes is bibliographic data, not the full-text.

**BM:** Yes. There was some discussion about including Open Access full-text as part of the RAE submission, but HEFCE eventually decided against it.

#### RP: How would that have worked?

**BM:** HEFCE discussed the possibility of accepting postprints as verification copies for assessment purposes. In the end, however, it negotiated some form of licensing arrangement with publishers to access papers using the digital object identifier.

#### RP: In other words, the assessors also faced an access problem?

**BM:** I'm sure of the details, but my understanding is that publishers agreed that the assessors should be able to click on the <u>DOIs</u> of articles in order to get access to the publisher's full-text, even where they weren't part of a subscribing institution.

But if you think about it, it would have been pretty adventurous of HEFCE to have allowed postprints to be used, and I'm not sure how seriously they considered it. Anyway, the upshot was that HEFCE decided to use DOIs as part of the submission process.

RP: So it would be true to say that for the purposes of RAE2008 all that needed to be deposited in ORO were the bibliographic details of research outputs, not the full-text?

**BM:** It would. But as I said, we have been really pushing researchers to put their full-text into the repository whenever they can.

RP: Someone looking in from the outside might be tempted to say: "The OU's institutional repository has two primary objectives: To ensure that its research is freely available to everyone on an Open Access basis, and to collect and manage statistics about its research output. Yet while ORO has captured 80% to 90% of the bibliographic data, the full-text figure is just 15%. It seems that Open Access has been sacrificed on the altar of research assessment"

**BM:** Well, it's true that we have had to engage in a kind of balancing act, and so I guess it would be fair to say that the RAE has put the weight on one side of the scales.

## RP: Tell me, how much does it cost to run an institutional repository?

**BM:** Well, ORO is very much jointly owned by the library and the Research School now, and the costs have primarily been met by the Research School. To be honest, the library wouldn't be able to afford to run ORO without help.

#### RP: But EPrints is Open Source software isn't it?

**BM:** It may be open source, but it isn't free by any means. It doesn't just run when you take it out of the box, for instance. When you install it you have to adapt it to your own institutional requirement, which means changing things, and so we had to do quite a lot of development work, both within the university and on a consultancy basis with the developers at Southampton University. So there are quite a lot of support costs.

#### RP: What kind of costs are we talking about?

**BM:** As a rough guide I would say we spent around £100,000 for the installation and support of ORO. Of course you could get it up and running for a lot less: that included quite a lot of support with metadata and so on. In addition we have to do development work on an annual basis, because there are always so many changes.

RP: So ORO could not have survived without the support of the Research School?

**BM:** Probably not.

## Virtual global archive

RP: Like most repository software, EPrints is compliant with the Open Archives Initiative Protocol for Metadata Harvesting (OAI). Is OAI important to you, or is it just something that came in the can?

BM: Oh, yes, it's very important.

RP: Why?

**BM:** Because the interoperability that OAI provides makes all the difference between simply putting your research on a personal web page and hoping someone might stumble across it, and placing it in a distributed global network of repositories containing millions of other research papers and that can be searched using specialist search engines like the University of Michigan's *OAIster*.

RP: I guess the OAI protocol could be described as the glue that turns a distributed network of isolated repositories into a single virtual global archive — by allowing harvesters like OAIster to aggregate the metadata in all compliant repositories, and enabling them to be searched from a single interface. Currently OAIster aggregates around 15.5 million repository records.

**BM:** Right and it is great that ORO is indexed by OAIster. OAI is potentially a very, very valuable piece of technology, and I would go so far as to say that the potential of OAI-PMH is key to the future of Open Access. Consequently I am always advising OU researchers to go and take a look at the OAIster site

RP: Of course Google searches a great deal more than 15.5 million web pages. But the selling point of OAI is that searching for scholarly papers using a web search engines inevitably produces a great deal of noise, and so makes the task much harder. And while there are other specialist

scholarly search services — <u>Google Scholar</u> for instance — OAIster is one of only a small group of specialist search engines that harvest OAI metadata?

**BM:** That's right. And another very useful Open Access tool, by the way, is the Directory of Open Access Journals (<u>DOAJ</u>). DOAJ exposes Open Access journals, and so we have put a feed from DOAJ into our library catalogue.

RP: This relates to the so-called gold road to Open Access. DOAJ lists all the Open Access journals that are available. So by linking the OU's library catalogue to DOAJ you can signal to patrons whether the paper they are interested in has been published in an Open Access journal. If it has, then it will be freely available on the publisher's web site, and possibly also in the author's institutional repository?

**BM:** Exactly. So as I say, it is another example of a very valuable Open Access database.

RP: You said that initially the library deposited papers for researchers. Is that still the case?

**BM:** There are three ways in which an item can get into ORO today. As you say, when we started we offered a mediated deposit service, and so did all the work for researchers. In addition, as we discussed, we harvested a lot of data from existing OU databases.

But as ORO developed into a comprehensive database it became clear that the library didn't have enough person hours to continue doing all the work. Consequently, researchers can also self-deposit today. In fact, we are actively encouraging researchers to do the depositing themselves, although in many cases it will be done by faculty research support teams, or departmental secretarial staff rather than researchers themselves.

RP: What percentage of the contents deposited in ORO is being placed there by researchers today?

BM: I would think the figure is around 40 to 50%.

RP: And how long does it normally take a researcher to self-deposit?

**BM:** It may take a little while the first time, but after that it should take no more than 5 to 10 minutes. Once a researcher has deposited two or three times it can be done very quickly. Essentially, it's very similar to buying something online, assuming you know what you want.

RP: The OU's experience seems pretty typical in many ways, not least the difficulty it has had in getting researchers to do their bit. (Research suggests that only around 15% spontaneously self-archive). The University of California has taken a novel and proactive approach to filling its eScholarship repository. As I understand it, the library searches out papers published by its faculty and then emails the author to invite them to supply their postprint. And they have made the process as easy as possible — essentially all researchers need to do is hit a link in the email they receive, attach their postprint, and the University will do the rest. Can you envisage the OU taking a similarly proactive approach?

BM: We are not currently planning anything like that. How does UoC locate the papers?

RP: In a variety of ways I think, including by doing online searches — presumably searching sources like <u>ISI Web of Science</u> and Google Scholar.

**BM:** Well, one thing we are doing in that direction (as part of the metadata process) is to try to establish whether the research output we are depositing has already been placed online, be it in a subscription database, or possibly on a personal web site. If it has, we put an external link into the ORO record.

RP: Yes I saw that. But a lot of the those links seem to direct the user to a pay-per-view service like <u>Ingenta</u>, where they are then asked to pay, say, \$25 to access the full text, rather than read it for free in ORO. That is not very supportive of Open Access I think?

**BM:** Well, it doesn't happen in the majority of cases. Another strategy we are currently exploring, by the way, is that of harvesting data from arXiv. That would be another way of tracking down the research output of OU researchers, and not unlike searching the Web of Science.

RP: The assumption here is that some OU researchers will have deposited papers in arXiv over the years, but not in ORO?

BM: That's right.

RP: Do you plan to harvest the full-text from arXiv, or just the bibliographic details?

BM: We haven't gone into great detail yet, but we would probably only harvest the metadata.

# Copyright

RP: The clear message I am getting is that persuading researchers to self-archive their work is very difficult. It seems that one particular hurdle is copyright. Is this a particular issue for the OU?

BM: For sure.

RP: The nub of the matter seems to be that traditional subscription publishers insist that researchers assign all rights to them as a condition of publishing their papers. And while around 62% are now "green" (That is, they permit researchers to self-archive), although sometimes after an embargo period, many researchers are worried that if they self-archive they might get into difficulties with their publisher. What advice do you give on this matter?

**BM:** One thing we say is that where possible they should try to retain copyright in their work. And in the future we will be more explicit in advising them to use a <u>Creative Commons</u> licence, or something equivalent. That should make it easier for them.

RP: And organisations like <u>SPARC</u> and <u>Science Commons</u> have created author's addendums to facilitate this. As I understand it, when a journal sends a copyright transfer form to an author they can simply attach one of these addendums to the form. This essentially grants a Creative Commons-style licence with the publisher, rather than the all-rights licence traditional publishers routinely send. But these are complex matters, and no doubt it will be some time before this becomes common practice, or indeed before many publishers accept it.

**BM:** Maybe. But generally we find that younger researchers tend to be more aware than their older colleagues that they don't necessarily have to sign over copyright.

RP: Who takes responsibility for ensuring that there are no copyright issue when papers are deposited in ORO?

**BM:** Initially all deposits go into the repository's buffer zone and are then checked by library staff before being accepted, and copyright is one of the matters we consider before doing so.

RP: As I understand it the University of California has outsourced copyright clearance work for its repository to Berkeley Electronic Press (<u>Bepress</u>). Is it a time-consuming activity?

**BM:** It's not especially time consuming. Essentially it means looking at the <u>SHERPA</u> website in order to establish what the postprint self-archiving policy of the publisher concerned is.

RP: In other words, you check whether the paper has been published in a green journal, and whether the publisher insists on an embargo period before self-archiving. SHERPA lists the self-archiving policies of all scholarly publishers does it?

**BM:** Correct. So although copyright checking *can* be a time-consuming process, in the majority of cases it is pretty straightforward: we just look up the journal on SHERPA and can see quite quickly whether it can go through as a postprint.

RP: Presumably SHERPA will also tell you if the journal the paper is published in is gold, and so can be deposited without constraint.

**BM:** So, as I say, it is not generally a very time-consuming activity.

RP: What's for sure is that there is a lot of confusion about copyright. I spoke recently, for instance, to a professor of classical studies at the OU, Lorna Hardwick, and when I asked her about self-archiving she commented: "I would not be willing for the university, explicitly or implicitly, to claim copyright over all my work and publications (partly because a lot of it is done outside what could reasonably be called university funded time but mainly for reasons of academic freedom)." Her assumption seemed to be that if she self-archived her work in ORO it would mean ceding copyright to the university.

**BM:** As you say, there is a lot of confusion. Lorna may not realise that in depositing her paper in an institutional repository she would retain copyright of it. Her comments demonstrate that we still have an important message to get over. That said, I am not aware that this has come up as an issue before.

RP: And in reality, of course, she has probably already assigned all rights to the publisher.

**BM:** If she has signed a copyright transfer form then, yes, that is probably correct.

RP: The other complicating factor here is that as a humanities researcher Professor Hardwick's work will primarily be published in book form, not in a journal. I suspect that if a researcher tried to get a publisher to agree to a Creative Commons licence they would be laughed out of the room today. Do you know of any book publishers who allow researchers to retain copyright?

**BM:** I confess I don't know what the situation is with regard to books.

RP: Do you ever deposit books or book chapters in ORO?

**BM:** Only on rare occasions. That is one area where we are probably putting in only around 5% full-text.

RP: One approach, perhaps, would be to use the so-called <u>Harnad/Oppenheim strategy</u>. This works on the principle that a preprint is not subject to the copyright agreement with a publisher (since it pre-exists any such agreement). So this strategy assumes that researchers are free to post their preprints, and then add the <u>corrigenda</u> once the work is published, which at least allows the penultimate version of a work to be made freely available, along with a list of the changes made before publication.

**BM:** It's certainly true that the difference between the postprint and the final preprint version is likely to be minimal. By that stage the research output is at its very final draft, and so is a very valuable research commodity that doesn't yet belong to the publisher. So I could envisage that strategy being useful in some circumstances, especially in arts subjects where books are so important.

#### RP: Is it a strategy you have ever considered?

**BM:** No. People just don't think in terms of preprints with book chapters. We also find that not many people have a preprint of a book chapter, let alone a whole book in a PDF version. Perhaps that is just the logistics of publishing.

RP: I suspect things are changing though. Like Professor Hardwick, my wife is a classicist, and she is increasingly asked by publishers to proof read her preprints in a PDF file, which are emailed to her. This saves the publisher having to print it out and send it in the post. So her PC desktop is littered with preprints of books and book chapters. If she were so minded, therefore, she could deposit all those PDFs into her institutional repository. Whether an institution would want to encourage her to do so is another question. They might feel it was risky.

**BM:** Right. Putting a PDF on a personal web site is not quite the same thing as putting it into an institutional repository.

RP: Here too I suspect there might be researcher resistance in any case. Another comment Professor Hardwick made to me was, "I am not willing to deposit full text where the text is of the penultimate version. All my stuff has improvements/corrections inserted at editorial/final review stage and therefore the publisher's [final] PDF is the definitive version." She added: "I do not have time to prepare a separate definitive text for the repository and I am not prepared to post an 'inferior' version."

**BM:** Yes. I have pointed out to Lorna that there is very little difference between the preprint and the postprint. However, I can see her concern about the published version being the copy of record.

RP: As we agreed, this is more of a concern for humanities researchers. Scientists appear to worry less about such things, and many more of them self-archive than researchers in the humanities, both in general and also I suspect at the OU?

**BM:** That's true. But it is not surprising: The idea of self-archiving has been around in the science community for a long time, mostly thanks to arXiv. Nevertheless, there are a number of people in the OU arts faculty who are more than happy with the idea of archiving preprints of their journal articles.

The key difference, of course, is that journal articles are more prestigious, or more numerous, in the science disciplines, and self-archiving is viewed as more of a journal issue — not least because of the more complicated situation with books and book chapters.

#### **Mandates**

RP: Let's talk about mandates. With so few researchers apparently willing to play ball, research funders have started to make self-archiving a condition of funding. In total, there are now around 21 funder mandates — including those introduced by the UK-based Wellcome Trust and the US National Institutes of Health (NIH). In addition all bar one (the EPSRC) of the UK research councils have now introduced mandates. Do OU researchers get much funding from the research councils?

**BM:** Oh yes. They apply for funding regularly — not so much for the money itself but for reputational reasons: It is good to be seen to be bidding for funding and makes people more aware of you. In that sense it's like getting a good RAE score: not only does it bring in money, but it enhances the university's reputation.

#### RP: How aware is the OU of the various funder mandates?

**BM:** There is a lot of awareness at senior management level, and they are very keen to make researchers aware of them too. The OU sees mandates as being an important driver of Open Access.

#### RP: Have the mandates had an impact on self-archiving at the OU yet?

**BM:** Undoubtedly they will because they will apply to any projects funded by those research councils who have introduced them, and the OU gets quite a lot of money that way. To date, however, we haven't had researchers contact us to say, "Oh, my funder says I have to self-archive my research papers. How do I do that?" But they could be self-archiving mandated papers without making the connection explicit to us.

RP: I wonder if it might prove difficult for research funders to police their mandates. A <u>study</u> published recently by The Wellcome Trust, for instance, found that only 27% of the papers that it had funded were freely available after the six month embargo it permits. That's not a very high rate of compliance. There also seems to be some <u>confusion</u> about how the NIH policy is implemented and <u>increasing resistance</u> from publishers.

**BM:** There are likely to be difficulties for both funding bodies and university's in policing their mandates. In some cases funding bodies are probably better placed to influence the behaviour of researchers. I expect that there needs to be some sort of sanction against researchers who do not comply with a mandate, but this would need to be managed with great awareness of the many pressures that researchers are working under.

RP: In addition to the funder mandates there are now 12 institutional mandates and four university departmental mandates. Has there been any talk of introducing a mandate at the OU?

**BM:** It has been discussed yes, and the University is currently reviewing its mandatory engagement with ORO. To that end it is taking advice and guidance from other institutions and agencies who have developed such policies.

#### RP: When would you expect a decision to be made?

**BM:** It is hoped that a decision will be reached by the summer of 2008.

#### RP: Do you personally think a mandate will be introduced?

**BM:** It's a possibility. However, I suspect it would be introduced in a way that doesn't use the word mandate, and as part of a wider institutional approach.

RP: We discussed the problems raised by copyright. And as I said, there has also been a lot of publisher <u>lobbying</u> against mandates, and increasing <u>resistance</u> to self-archiving. Are you aware of the "Immediate-Deposit/ Optional Access" (<u>ID/OA</u>) mandate proposed by Open Access advocate <u>Stevan Harnad</u>? As I understand it, this would require researchers to deposit <u>all</u> the papers they write into their institutional repository — as soon as they are published, and in full-text. However, if the publisher does not permit self-archiving, or insists on an embargo, the full-text would only be made available internally. At the same time, however, <u>a button</u> in the repository software would invite external researchers to contact the author and ask him or her to e-mail a copy under fair use rules. Might that kind of mandate be of interest to the OU?

**BM:** Oh, absolutely. And in fact we put forward an internal paper that proposed just such an approach.

#### RP: This was a proposal from the library to the Research School presumably?

**BM:** Yes. The thinking was that it might offer a way of introducing a mandate without falling foul of copyright laws. Whether or not that particular solution is likely to be adopted I don't know. But it is an idea that senior management are actively considering.

RP: Meanwhile, the Faculty of Arts & Sciences at Harvard have <u>adopted</u> a different approach, voting for a mandate that will require each faculty member to grant to Harvard, as the motion put it, "a nonexclusive, irrevocable, paid-up, worldwide licence to exercise any and all rights under copyright relating to each of his or her scholarly articles, in any medium, and to authorise others to do the same, provided that the articles are not sold for a profit." As I understand it, this would mean that faculty would have to grant the University the right to put their papers into the University repository before any agreement with the publisher — essentially the University would grab the rights they need to archive faculty papers upstream of any agreement with a publisher. The University of California has been discussing a <u>similar approach</u> for some time, and I expect we will see many more such initiatives.

BM: Yes, I think so.

RP: Given what we said earlier about humanities researchers, any such mandates are likely to affect scientists more than humanities researchers. None of the mandates being introduced or discussed cover books do they?

**BM:** No they don't. It's a classic one-size-fits-all problem as there are a different set of rules and expectations for different subject disciplines. And sometimes there are a lot more diversions than you think. That probably explains Lorna Hardwick's position — she places an emphasis on the importance of the final polished version.

#### **End game**

RP: How do you see ORO developing in the future, both in terms of providing Open Access to OU research and as a management information tool to support the RAE?

**BM:** ORO now plays three different roles today, and I expect it to continue playing all three of those roles in the future. So it will remain a valuable tool for achieving Open Access, it will continue to promote the OU's research identity, and it will carry on supporting the RAE.

RP: Of course the RAE is set to change in the near future. I wonder what implications this might have for ORO.

**BM:** The RAE will be replaced by the Research Excellence Framework (<u>REF</u>), which is initially directed at the science, technology, engineering and medicine [STEM] disciplines. In those subjects at least it is going to be more of a metrics-based process.

RP: As far as I am aware no one yet knows what "metrics-based" will mean in practice?

**BM:** That's because the REF hasn't yet been fully realised. However, I believe it is intended to be introduced in 2010 for STEM subjects, which really isn't very far away. What does seem clear is that it is intended to introduce a far more comprehensive assessment process.

#### *RP: How might that work?*

**BM:** Where today the RAE requires only four outputs per researcher, for instance, the REF may assess the whole body of research produced by a researcher over the assessment period.

RP: I wonder if this might lead to a situation where research assessment started to work in favour of Open Access, rather than against it. If, for instance, as part of the overall assessment the new metrics-based process counted the number of times that researchers' papers were downloaded from their institutional repository there would be a much greater incentive to self-archive, and a greater need to deposit not just the metadata, but the full-text too?

**BM:** That sort of thing is perfectly possible, and statistics like that could be very important. However, I think a more important aspect of the REF will be a focus on citations, and I expect citation counts will be key. But this too could work in favour of Open Access because, as we discussed, one way in which researchers can increase their citation rates is to deposit their research in an Open Access repository.

RP: Either way, the REF might encourage self-archiving in ways that the RAE did not. After all, making the full-text freely available is far more likely to get citations than simply archiving the metadata?

**BM:** I think so. And for that reason we will certainly be encouraging OU researchers to deposit as much full-text as possible.

RP: We talked earlier about the costs of running an institutional repository, but I wonder if you see any ways in which ORO might save the OU money.

**BM:** My hope is that in the long term self-archiving will make publishers think more carefully about what they charge for access to their journal databases. As such, I think that Open Access has a key role to play in balancing out the forces in the scholarly communication market. Consequently, I would hope that ORO will eventually save the OU money in that kind of way.

From my perspective, therefore, one of the main advantages of Open Access for libraries, for researchers, and for universities, is that it will force publishers to fully come to terms with online reality?

#### RP: How so?

**BM:** Publishers are able to save costs in an online environment, so their prices should be falling, not rising. Right now we are in the slightly artificial period where we get the advantages of instant access that the electronic environment enables, but not the cost benefits.

RP: Do you think the problem here is that publishers are treating electronic journals as though they were a print product, rather than an electronic product?

BM: I do.

RP: What you say implies a future in which journals continue to operate on a subscription basis, but, because of the self-archiving movement, rein back on the constant price increases. But it occurs to me that even if it filled ORO with 100% of the OU's research output (in full-text) the OU would nevertheless have to continue paying journal subscriptions, as it would still need to buy access to the millions of papers produced by other research institutions. But with the number of scholarly journals growing all the time would not the budgetary problems libraries face continue?

**BM:** Yes the OU would still have to subscribe to as many journals as possible. But if all universities had repositories, and they all achieved 100% deposits rates, things would be very different...

RP: Sure, but I wonder how likely that is, certainly in the short-term. For many Open Access advocates, of course, the end game is to move all subscription journals to a gold free-to-read model. If that happened, then it would be the publishers who took responsibility for making the peer-reviewed literature freely available on the Web, not universities themselves.

**BM:** Maybe, but right now one of the core benefits of Open Access that I see is that it raises awareness amongst researchers of the subscription costs that libraries are paying in order to provide them with access to all the journals that are available to them.

It is far too easy today for people who are attached to a university — either as an undergraduate or as a member of staff — to take it for granted that they can just click on a journal article, or an electronic book where it is available, and get access to it just like that. And if they are on campus they probably won't even be asked for a password because access is controlled by IP addresses. To them it appears to be free already.

RP: If, as most now expect, Open Access publishing becomes the norm then presumably the subscription burden will fall away from library budgets. That makes me wonder: If the OU library no longer had to pay £2 million a year for journal subscriptions would it realise a financial windfall? If so, how should it spend the money?

**BM:** That would be nice, but we haven't seen our subscription costs going down yet — although I think it is possible that that they haven't risen as steeply as they were doing before the Open Access movement got underway.

RP: And presumably one thing that might be holding down price increases is that the self-archived versions of articles provide an alternative to the publisher's version, and so introduce an element of competition?

**BM:** It would seem so. Journals subscriptions were at one point rising very, very steeply — two or three times the retail price index. Today that has fallen to probably one and a half times RPI.

As to libraries benefiting from any savings, I would think it is far from certain that any money saved would remain in the library budget!

## **Virtually Redundant?**

RP: If the institutional repository movement does force publishers to migrate to Open Access publishing models, and publishers become responsible for making the peer-reviewed literature freely available on the Web, one might wonder whether the institutional repository might become redundant. Why would a university need an institutional repository if the publishers were offering free access to scholarly papers?

**BM:** I don't assume that Open Access and institutional repositories are the same thing. Institutional repositories are just part of the solution. So I am not evangelical about the green route to Open Access. I imagine that a number of solutions will develop over time, and it is not yet clear what the final outcome will be.

RP: So you wouldn't mind if the institutional repository became redundant at some point in the future.

**BM:** Well, I don't see it happening in the short to medium term, so I anticipate there being a key role for institutional repositories for some time to come. But how they develop, and whether they are called institutional repositories in 20 years time, I really couldn't say.

RP: In other words, you are committed to Open Access rather than institutional repositories. Institutional repositories are merely a useful tool to help persuade publishers and researchers to migrate to an Open Access environment?

**BM:** Yes, that would be my position. The end game is Open Access to research, and the institutional repository is a means to that end. As I say, institutional repositories may not be the final solution to Open Access.

RP: One concern about the gold model is that publishers will still be billing the research community for managing the scholarly communication process (by means, for instance, of author processing charge — which currently <u>range</u> from \$500 to \$4,900 per article). Some suggest that in such a scenario overall costs for research institutions wouldn't go down, and so the problem of financing scholarly communication would remain.

**BM:** It seems that with current advances in information and communication technology the real costs of funding the scholarly communication process should be falling. There may be more scope for removing the commercial element from the author processing charge, for example increasing the number of open access journals that are published from within universities.

RP: Indeed, another possibility is that research institutions decide to take back ownership of the scholarly communication process, and use the institutional repository as a platform for doing that.

You maybe saw the <u>paper</u> published recently by Berkeley Electronic Press that proposes turning institutional repositories into publishing platforms. Could you see ORO becoming a publishing platform?

**BM:** The idea of turning a repository into a publishing platform is very interesting. The Open University Press is now an <u>imprint</u> of McGraw-Hill publishers, but while it publishes a range of monographs and textbooks I don't believe it publishes journals, so there may be some scope there.

In fact, the OU is already publishing a number of Open Access journals, and Lorna Hardwick has been largely responsible for setting up <u>two</u> of those <u>journals</u>. (Such a development wouldn't have been possible before the advent of Open Access publishing by the way).

So I can certainly imagine ORO at some point in the future being used to help set up and publish journals along the lines proposed by Berkeley Electronic Press. I can also see services like the "<u>SelectedWorks</u>" site described in that article being greatly appreciated by OU faculty. It would give researchers a greater sense of ownership and control over the work they put into the repository.

RP: As I understand it, SelectedWorks allows researchers to post their papers to a customisable individual page that they can self-administer, and for which they can obtain download statistics. The page can also be institutionally branded and linked back to the researcher's institutional repository.

BM: That's right.

RP: The Berkeley model invites the question: Might it be publishers that become redundant, not institutional repositories?

**BM:** Not necessarily. There will always be a need for someone to manage the peer review process, and provide other value-added services, and publishers have a lot of experience in that.

RP: And that means that tasks that have historically been managed and controlled by publishers in a very physical way will become increasingly virtual. But what about libraries: If there were no subscriptions to manage they would presumably have less to do. And if the virtualisation of library services that we discussed at the start of our conversation continues, and as more and more of the world's information becomes available on the Web, a lot of the work currently done by libraries begins to go away. Libraries themselves will perhaps become virtually redundant (to use a different meaning of the word virtual), and be significantly downsized?

**BM:** Possibly, and the library is certainly going to have to think way beyond the idea of the physical library building. As you say, we are seeing a lot of discussion about moving towards electronic-only collections for instance.

But while some might say that this presents some kind of threat to the idea of a library, and libraries will certainly have to evolve and develop, I don't think it necessarily means that the library stops being a physical place.

But whatever the fate of institutional repositories, of publishers or of libraries, the key point is that it is critical that the outputs from research — which is supported and funded using public funds — are disseminated and shared with the widest possible audience. Only in that way can we ensure that we remain intellectually aware and critical of the contribution that research makes to society. That should be the goal of scholarly publishing, however it is achieved.

#### RP: OK, thank you for your time and good luck with the development of ORO!

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