

In the Kingdom of the Blind: Successfully implementing institutional repositories in the UK and the SHERPA Partnership Experience

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ABSTRACT

This paper takes an overview of the work of SHERPA team and the SHERPA Partnership institutions in the area of developing, populating and maintaining institutional open access repositories. Crucial to this work has been the development of mutually supporting and enabling Partnership community, something which has been now recognised as needed by institutions who lie outside of it. To this end SHERPA is involved in efforts to support the individuals and institutions across the UK and Europe whom are engaging with the open access agenda on a practical level; through setting up community networks and disseminating experience. Key in the experience of the Partnership has been the role of advocacy of open access and repositories to the institutional research community. Whilst this experience has been unique to each institution, there are many shared lessons and best practice that the Partnership has recently reflected on, and that are articulated within this paper. Finally brief coverage on some of the vital community tools developed and maintained by SHERPA, and reflections on the evolving direction of open access in the UK are made.

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INTRODUCTION

Many excellent, readable and authoritative sources and articles detailing the origins and impact of the open access (OA) movement upon the global scholarly communication landscape have been published in the past decade and it is not the intention of this paper to extensively re-review previously demonstrated advantages of OA (ANTELMAN 2004, HARNAD & BRODY 2004, HUBBARD 2004, LAWRENCE 2001, SWAN 2005). The reader seeking a broader grounding in this field is cordially directed to examine some of the articles elsewhere in this issue, as well as some of the following references (HARNAD 2001, JISC 2005, SUBER 2006, TESTA & MCVEIGH 2004).

However, the paper will touch on some of the basic concepts and issues as understood within the SHERPA Partnership of UK institutions, examining recent experiences, tools developed and reflect upon the implications for the growing number of institutional repositories (IR) in the British tertiary education sector. Much of the material in this article is drawn from the preparation and delivery of the recent SHERPA Plus roadshows.

From the outset SHERPA was dedicated to the sharing of the experience of its partners as widely as possible, and this continues to be true today. Whilst the Partnership continues to share vital experiences, with the recent expansion of its core team the global community has also been able to more readily benefit from SHERPA's experiences. It is to this end that this paper has been drafted to expand on some of the recent SHERPA dissemination and outreach activities.

SHERPA

When the original SHERPA (Securing a Hybrid Environment for Research Preservation and Access) Project was proposed under the JISC Focus on Access to Institutional Repositories call in 2002 the institutional repository (IR) landscape in the UK was considerably different to how it exists today. Subject archives such as arXiv had been operational for some years, but UK higher education had yet to take significant steps to retain a portion of their intellectual property rights in the form of academic scholarly output. Arguably it was the creation of Nottingham Eprints, as the first UK IR, that signalled the beginning of new environment for scholarly communication in the country; an environment that continues to evolve.

Between 2003 and January 2006 the project's mission was to set up, populate with scholarly works and support a number of institutional repositories around the UK (AYRIS ET AL 2002). Whilst a then new concept this period was marked with other repositories coming on-stream outside of the Partnership, although constructed in semi-institutional isolation from one another.

One of the key properties of the SHERPA Partnership was an internal geographic and operational diversity across member institutions, engendering a broad range of experiential models. As a consequence of this broad experience the Partnership has gone on to act as a touchstone for many other OA initiatives.

SHERPA partnership

Partner institutions are all primarily research-led organisations, with many paramount in the UK's research profile and are therefore well positioned to take full advantage of the facilities that IRs offer to them. The Partnership includes the British Library and

the Arts and Humanities Development Service (AHDS), bringing with them their intellectual property rights, data curation and collection management experiences. The Partnership also acts as a test-bed for exploring and refining repository development ideas; concepts that are examined in an enabling and supportative environment. It is the effectiveness of this network that has served as the inspiration for UKCoRR, which this paper will return to later.

The core project team, based at Nottingham, worked with initially six partner university libraries and AHDS using the eprints.org software developed at Southampton. Subsequent to this seven additional partners were sought to demonstrate that workflows, processes, staffing models, approaches and implementations used by the initial partners were repeatable. The project benefited from the outset through the involvement of two different models of repository organisations; individual institutions and a consortia approach adopted by the White Rose group of Leeds, Sheffield, & York (SHERPA 2007a).

SHERPA itself is overseen by a management group, contributing to the strategic and visionary development of the Partnership, as well as ensuring continued adherence to its aims and objectives. Membership is drawn from within the Partnership and the various project funders.

SHERPA today

Today SHERPA continues as team working on a suite of projects relating to developments in scholarly communication and OA; with partner institutions now numbering thirty-three (SHERPA 2007d) with other affiliate partners under consideration. It should be noted that Partner Officers are employed by the

institutions where they are based, whom benefit from the continued support and interaction their staff receive and the encouraged within this select community.

Current project activities by SHERPA can be broadly broken down as follows:

Table 1 - SHERPA activities

- Authors' rights, IPR & funding mandates
 - SHERPA/RoMEO, JULIET
- Discovery & search services
 - OpenDOAR, Intute Repository Search
- Preservation & long term access
 - SHERPA DP, PROSPERO/Depot
- Repository development & administrator support
 - DRIVER, SHERPA Plus & Repositories Support Project

- Contributing to
 - EThOS, Copyright Knowledge Bank, Intute RS, DART-Europe, RIOJA

The core team at Nottingham continues to consult on developments in the field as well as developing globally respected tools for repository managers such as SHERPA/RoMEO (ROMEIO 2006), JULIET (JULIET 2006) and OpenDOAR (OPENDOAR 2007). In response the community has recognised the significant impact of SHERPA's work with the 2007 SPARC Europe Award for Outstanding Achievements in Scholarly Communication (SPARC EUROPE 2007).

OPEN ACCESS REPOSITORIES

SHERPA defines OA repositories as online web sites where authors or designated intermediates deposit scholarly publications for anyone to read (SHERPA 2007e), taking its lead from the Berlin Declaration (GRUSS 2003). The OA tag refers to the free availability of their contents to all; thus there is, or should be, no subscription or registration required to read papers within them. This may be regarded a purist view of OA by some, but it is the successful SHERPA Partnership approach.

Some repositories restrict access to specific papers to local networks, locally registered users or specific community members. This is restricted access is not supported or advocated by the SHERPA Partnership. However, it is increasingly acknowledged that for many institutions a hybrid approach, mixing fully accessible items with those restricted to certain audiences or pending embargo expiration, is a practical or political necessity. This has been noted as a recent trend in dealings with IRs outside of the Partnership.

Open access & traditional publication

It is the belief of the SHERPA Partnership that OA repositories are not in any way a substitute for peer-reviewed publication (JOHNSON 2007a). However, they exist as a companion service conveying advantages to depositors, readers and institutions on many tangible levels. However, as many administrators struggle to populate their repositories with sufficient materials (XIA & SUN 2007) it seems that the research community's awareness and uptake of repositories remains an area for concerted development. The role of training, advocacy and outreach in satisfying this is an area which the SHERPA partnership has focussed particular energies upon.

Barriers

One of the biggest drivers for OA are the barriers produced by traditional publication processes; limiting readership by economic factors, stifling development and collaboration; even souring library/academic relationships. Especially lamentable is the lack of awareness for many authors to this situation, a set of circumstances with which they are complicit in propagating. Repository administrators struggle at times to raise awareness of scholarly publishing and OA issues, along with an understanding of retained author rights. SHERPA Partners have repeatedly noted that it is through advocacy and outreach efforts that these issues are resolved and repository ingest enabled. That is not to discount issues such as staffing, funding, workflows and technical challenges – but without an awareness of OA issues then success will be hard won.

Another key challenge for authors and repository administrators is to understand the hundreds of different publisher author rights (copyright transfer agreements) relating to their authors. This is not helped in some cases by unclear policies, jargon and in occasional confusion as to where rights ownership between publishers and professional societies actually lies. However, in this complex field SHERPA has for some time been providing some invaluable guidance in the form of SHERPA RoMEO, which provides summaries of journal publisher policies (ROMEIO 2006).

Repository administrators

Repository administrators are commonly drawn from, or embedded within, a library and information science environment. However, it has been noted during the recent national events hosted by SHERPA that there is an emerging skills-set divergent from their former peers. The role of the administrator requires them to straddle the

domains of academics, administrators, librarians and technical staff; without truly belonging to any of these groupings. This professional isolation has been regrettably enhanced by the fixed term of some repository start-up projects.

With professional support lacking locally, repository administrators have increasingly turned to outside agencies to supply the training, development and peer support they require. For the SHERPA Officers the partnership has provided this, and it is hoped that both the RSP and UKCoRR will meet this for the rest of the country's practitioners.

Other stakeholders

Whilst SHERPA's project officers work primarily within their own academic and information communities, the project identified a range of stakeholders within OA.

Table 2 - Stakeholders in open access

- | | |
|--|-----------------------------|
| • Academics as authors (creators) | • General Public |
| • Academics as researchers (end users) | • Funding agencies |
| • Repository administrators | • University administrators |
| • Library & support staff | • Publishers |

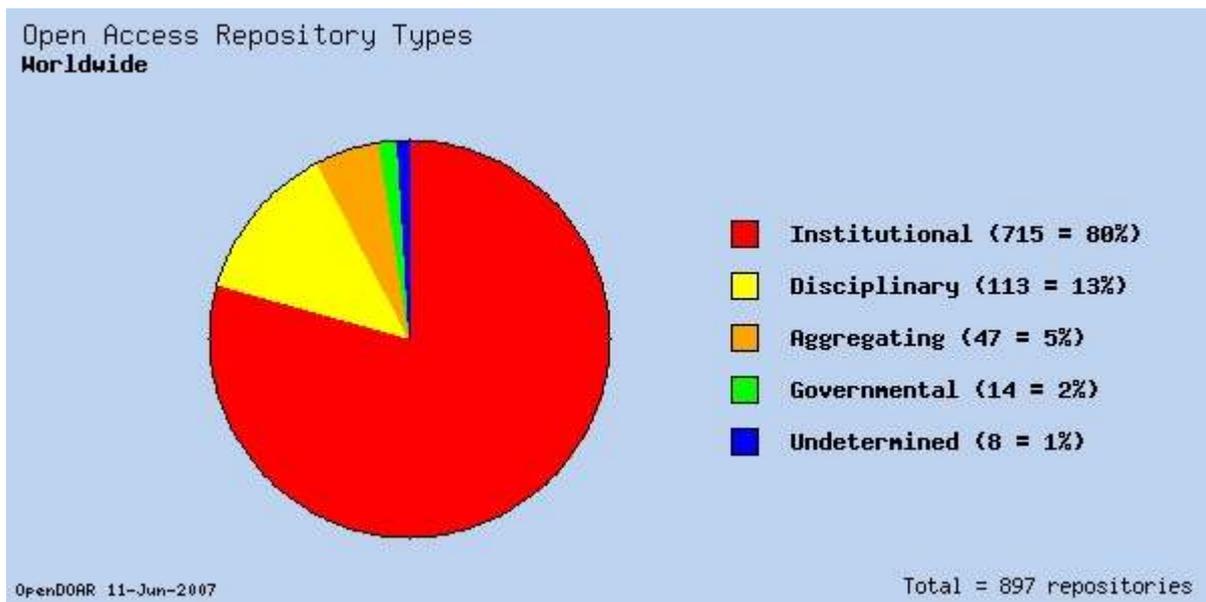
One aspect of this work, important for SHERPA's ethos, was the identification of publishers as key stakeholders in the scholarly communication field. Their role in enabling scholarly communications has been an essential one; stakeholders to be worked with rather than viewed in an antagonistic manner. Through this ethos SHERPA has been able to discuss aspects of OA with various publisher representatives; exploring potential mutually beneficial future models. It has also been invaluable to ensuring the population, update and quality assurance of the

SHERPA/RoMEO site. Some academic authors remain entrenched with strong opinions of OA as defined by the publishing community. This can be a significant challenge to IR administrators to overcome and to open effective lines of dialogue. It is an area in which SHERPA has shared guidance across the partnership and to the community (HUBBARD 2005).

Focus on institutional repositories

SHERPA has had a particular focus on supporting and promoting IRs as opposed to disciplinary based sites. The principal reasons for this is that they are seen by the JISC as the model of choice for the free dissemination of scholarly information, and that they are intrinsically more stable entities with local technical and educational support available to users. Notably some subject repository sites, such as arXiv, are now being underwritten by institutions to ensure their longevity. From data collected for OpenDOAR it has become apparent that IRs are now the predominant OA repository format, comprising 80% of repositories indexed (fig 1). However, the interaction between IRs and subject repositories remains of interest, especially in the area of providing authors with a single ingest route to populate multiple sites.

Figure 1 - Global repository typology



Source OpenDOAR, May 18th 2007

Many subject repositories are established by individuals or groups of individuals for whom the subject is a passion. Unlike those repositories backed by an institutional infrastructure it is quite possible that these sites will become moribund and no longer benefit from newer ingested materials, should these individuals move on. It is currently believed that educational institutions will exist for the foreseeable future, and that repositories operated under their auspices offer a higher probability of long accessibility.

Whilst some repositories have taken the approach of auto-harvesting their authors' works or the manual monitoring of key locations; SHERPA has been involved in tentative discussions whereby IRs could form the principal route of submission allowing subject repositories to subsequently auto-harvest from them. Whilst this is perhaps an oversimplification of the concept, with variances in publisher policies or funder mandate rules as they apply to each, it remains an area of active interest. It

potentially enables an author's work greater visibility and mandate compliance at a reduced level of actual effort; and thus doubtlessly a most desirable future activity.

Institutional benefits

IRs also offer certain key advantages to the host institution, not least of which is retention of a portion of its intellectual assets. The repository can act as an organisational intellectual showcase, drawing interest from commercial and community sectors, as well as enabling potential global collaborative efforts. It is also expected, although not yet demonstrated, that institutional repositories will prove invaluable metrics for research and institutional review exercises. Already some UK institutions are utilising these metrics within internal assessment and promotion taking account of readership of repository deposited research. This approach lies between the self-archiving and mandated approaches to repository population and may act as powerful deposit encouragement; although this coercive approach may generate some academic scepticism.

Whilst most SHERPA Partnership IRs adopted a primary route of author self-archiving as their ingest route, a mediated deposit trend has emerged in the UK. This preference for deposit on behalf of authors is well established within the fledgling members of the UKCoRR organisation, with authors benefiting from the support of local staff to enable research ingest with minimal effort. IRs benefit from standardised approaches to metadata creation that would otherwise be constructed on an ad-hoc basis. This trend may be representative of the emergence of repositories into the academic and institutional mainstream of scholarly behaviour and will doubtless have a major impact on the approaches to advocacy adopted by repository administrators.

SUPPORTING THE COMMUNITY

Supporting academic authors

One of the most important areas in which SHERPA offers guidance is in the field of frequently asked questions. Whilst many concerns are unique to particular institutional configuration and dynamics, certain common misunderstandings are repeatedly evidenced across the community (HUBBARD 2005). To clarify the situation SHERPA has offered advice for authors on further exploring the issues relating to effective use of repositories or engaging with the OA debate (Johnson 2007b). This focus on helping authors to help themselves as well as providing resources for administrators to reuse continues to a core theme across the SHERPA Partnership (SHERPA 2007c).

Community building

One of the major themes within SHERPA's work has been that of building, supporting and enabling the UK institutional repository community through such activities as the Partnership itself and developing tools like SHERPA/RoMEO. Many IR administrators have expressed a palpable sense of professional isolation. Within the Partnership isolation has been minimised, but this remains an issue for many UK institutions, as recent SHERPA workshops have identified.

UKCoRR

Developments over the past few years have meant that there is now a large and growing body of professionals engaged in repository management, development and maintenance, activities which have been introduced in different institutions with varying levels of support and resource. As repositories have grown in recognition and

importance, the role of the repository administrator has also evolved and it is important that they can grow as a community, learning from each others' experiences and crucially sharing best practice (PAPPALARDO & FITZGERALD 2007).

To this end SHERPA has been working towards the foundation of UKCoRR (UK Council of Research Repositories) as an independent practitioner-led body (SHERPA 2007b). The JISC have provided seed-corn funding for the launch as an output of the SHERPA Plus project, although the long term future of such an organisation will likely depend on sourcing sustainable funding. Part of the focus at the inaugural meeting at Nottingham in May 2007 was a discussion about the future direction of role of UKCoRR and the professional development requirements of repository administrators and efforts to establish a vision and tangible goals for the group.

Over fifty individuals attended, representing dozens of repositories, not solely those based in higher education. In the first instance development and secretariat functions for the organisation will be provided by SHERPA, whilst the infrastructure of the group is established. What the final evolution of UKCoRR will be by the end of 2007 is currently open to interpretation, but from discussions it is clear that it answers a genuine need in enabling mutual support and effective practitioner networking.

Repositories support project

The Repository Support Project (RSP) is a JISC funded 2.5 year project to co-ordinate and deliver good practice and practical advice to English and Welsh higher education establishments to enable the implementation, management and development of institutional repositories. It is led by SHERPA along with core partners, the University of Wales Aberystwyth, and UKOLN; with other funded

partners the University of Southampton and the Digital Curation Centre. It is notable that all partners represent key centres of repository national expertise, and thus the project will build on their previous national and international activity across the repositories landscape. SHERPA's most significant contribution may well be to apply the experience gained through establishing its own Partnership models, which potentially offer role-models adoptable by developing repository sites.

The major goal of the project is to progress the vision of a deployed network of inter-working repositories for academic papers, learning materials and research data across the UK. In essence the RSP aims to provide a "one stop shop" for advice on all aspects of repository development (PENNOCK & LEWIS 2007), whilst fulfilling the business requirements of institutions to manage their assets, showcase research outputs, and share learning materials. Such a network of populated repositories will be a major step forward in the provision of OA materials. The RSP is contributing to activities that will develop repository capacity, knowledge and skills within institutions through the provision of guidance and advice with an anticipated resultant propagation of institutional repositories. Plans are already advanced for non-platform dependant training and development events, which naturally will be marketed and inter-related to any efforts on behalf of the UKCoRR. This outreach programme will target institutions that are yet to take the first step, as well as giving more advanced organisations guidance on embedding existing repositories within internal strategies. In both instances the intention will be to provide clear decision paths, workflows, recruitment profiles, succinct guidance notes and hands-on mentoring support.

Whilst there are doubtless fascinating theoretical research areas a major objective of the RSP is to increase the pace of institutional adoption through the provision of practical assistance and advice based on available solutions, with an emphasis on practical operational issues. The core message, in many respects the same central ethos of both the SHERPA and SHERPA Plus projects, is “more repositories, more content and more re-use of deposited objects”.

DRIVER

The DRIVER project is, in some regards, an opportunity for the SHERPA Partnership to draw on its experience and assist in the development of IRs across Europe (DRIVER 2007a). The project is building of a testbed for a future knowledge infrastructure of the European Research Area, with partners drawn from a wide range of European countries comprising some of the most active OA institutions. It aims to deliver any form of scientific output, including scientific/technical reports, working papers, pre-prints, articles and original research data to the various user groups. The testbed is based on existing nationally organized digital repository infrastructures. Other work includes the support of new European repositories, and for SHERPA the particular focus is once again on enabling effective advocacy, benefiting the UK educational community through an expansion of the knowledge and resources available to support repository administrators.

Thus far as a project it has developed the infrastructure middleware and has conducted focused research studies (EIJNDHOVEN & GRAAF 2007) to facilitate the iterative development of DRIVER; helping to develop the roadmap for EU-wide expansion. The project is now actively advocating repository development, creating an informed and active environment for repository infrastructure development in EU

countries with focused activities, information, contextualized support and the DRIVER Support website (DRIVER 2007b).

POPULATING REPOSITORIES

Policy

Over the lifespan of the SHERPA Partnership it became evident that effective scholarly ingest was not a technological implementation or depositor ability challenge and more dependent on repository policies made by each institution and academic appreciation of OA models. The original SHERPA Project focus adopted by the partners focused solely on the ingest of specific item types; in most cases pre & postprint journal articles as a proof of concept. Since this project's conclusion this approach has been broadened with administrators seeking to ingest any credible scholarly work produced by the institution; limited only by each authors' retained rights. However, some more complex objects (websites, advanced learning objects, 3D topographical representations and other data sets) do present a technological and effective metadata descriptive challenge and are an area of current concern.

Repositories have the concept of sustainability at their heart and whilst some have develop policies concerning data curation, a number of projects are examining the technical methodologies required to ensure today's formats retain readable for the long term future. However, work conducted on behalf of OpenDOAR has identified over 80% of the world's repositories lack any form of curation and preservation policy (MILLINGTON 2006b). The concern remains that research material in which much effort has been invested to include in a repository could be lost.

Repositories need clear information on all their policies regarding tagging peer-reviewed/non-peer-reviewed material, their subject coverage, the constituency they draw on for content, their collection and preservation policies, etc. Where this information does not exist, repositories should be encouraged to provide it as a solid base that will improve the visibility of their contents to repository exploitation tools, and hence its reuse. Examples of OA repositories and their policies can be found using the OpenDOAR service.

Why is advocacy key?

To embed and enable your repository successfully cultural change must be achieved. Whilst funding, staffing, ethos and policies must be agreed one of the most effective tools is advocacy, in essence getting the right message to the right people with tone and content varied by target audience. The SHERPA Partner experience has been varied and whilst each institution has different approaches some common themes have emerged. The aim is to build an informed awareness for which a core message and ethos is essential – what does the repository do and whom is it for. It was demonstrated that neglecting advocacy resulted in repository decline and stagnation. However with the right level of engagement across the institution advocacy become the key to success for the SHERPA Partnerships' IRs (MARKLAND & BROPHY 2005).

Engagement with advocacy in institutional repositories has been observed to fall into two broad domains – the intellectual and the emotional. For many repository administrators the intellectual, expounding on the advantages of the repositories is the easier of the challenges as it draws on their sector knowledge. Winning the hearts and minds of researchers and scholars through exploring what advantages

OA offers them personally is a complex area that requires a bespoke approach, in many cases for each faculty, department or even individual. Approaching some academics with advocacy messages based on “what’s in it for me?” can be effective, although it can also generate potential conflicts or misinterpretations. The route of communication to academics is another area where the Partnership utilises a blend of approaches (Table 3).

Table 3 - Threads of advocacy

- Top down (mandates, steering groups)
- Bottom up (hearts & minds, graduates training, launch events)
- Champions (peer-2-peer, laureates, high visibility researchers)
- Serendipitous (scatter-gun, ad hoc)

Seven (and a half) pillars of advocacy

Advocacy has been the heart of the SHERPA Partner activity and the cornerstone of achieving cultural change within institutions. Whilst some commentators disagree with respect to the effectiveness self-archiving (XIA & SUN 2007), this has not been the Partnership experience, although a mediated archiving trend appears evident within the OA community. There have been demonstrable examples for some institutions where only a limited application and effort in advocacy has been evidenced, and these are Partners with the lowest levels of ingest. Thus the existence of the repository is but a first step on the road to filling it with materials. Where this has been an issue a re-launched outreach campaign has revitalised rates of ingest.

At a recent (Dec 2006) colloquium for SHERPA Partner Offices the question of advocacy and how it was engaged with at each institution was examined at length. The table below (Table 4) gives an overview, and over the next few pages this paper will explore this output in more detail.

Table 4 - SHERPA 7.5 pillars of advocacy

1. Set Achievable Targets
2. Discipline & Community
3. Educate & Clarify
4. Seize the Moment
5. Allies & Comparators
6. Enable Effective Deposition
7. Achieve Quick Wins
- 7.5...Challenges

(JOHNSON 2007c)

Achievable targets

Steering groups comprising key people to confer institutional clout can help drive institutional developments and open otherwise locked lines of communication.

Membership should comprise realists as well as enthusiasts for OA, so that challenging or institutionally unique issues can be resolved as early as possible. A focus on specific targets was one of the major actions of the partnership, exploring pre-existing contacts in particular subject areas or focussing ingest in particular item types. The SHERPA Partnership's focus was initially on journal articles only, seen as the most readily desirable items of research output.

Working with *celebrity* academics, those with high media or disciplinary recognition, was also a regularly practised initial approach. Through engaging with high-visibility individuals the impact of the repository on the institutional community was amplified.

Discipline & community

Disciplinarily differences in deposition and engagement are evident but not absolute. What became clear was that generalising only STM academics would engage with repositories was a fallacy. Across the partnership examples of academics from all disciplines engaging with the concepts of OA was noted. Some disciplines (e.g. Physics or Computer Science) had a tendency to gravitate towards subject repositories. In terms of advocacy the Partnership advocated the long-term stability of IR and availability of local support as a major advantage to depositing locally. As noted earlier, the concept of IRs acting as ingest mechanism for subject repositories remains one aspect that could be further exploited in resolving this issue.

At the same time the SHERPA Partners have tried to maximise their effective resource, seeking engagement with those academics potentially most willing to become involved. With most Partner institutions operating on limited staff and time resource it not make practical sense to focus advocacy on extremely uncooperative academics. Resource was better employed in engaging the majority of authors, journals and publishers that do or may support deposition rather than minority that do not.

Educate & clarify

The concept that stakeholders will have many similar concerns and questions is one that the Partnership addressed early on. Following their identification it was possible

to mount model answers on the SHERPA site offering guidance on potential resolutions. The possible threat to journals in the long term remains one of the most commonly asked of these, to which the Partnership can only point to the evidence to date showing co-existence possible with 14 years of physics publications. However, with the Brussel's declaration from publishers (IASTM 2007) and the EU OA petition (KEY PERSPECTIVES 2007) this clearly remains an area of contention on all sides of the OA debate with which repository administrators must keep themselves and their institutions appraised. The Partnership has noted that with raised academic awareness of the global nature of the scholarly publishing challenges, that a greater academic engagement is gained and in some cases powerful advocates arise to deal with publishers directly.

Seizing the moment

While a planned advocacy campaign is vital, many opportunities for outreach come through informal channels. In this regard the flexibility, adaptability and basic availability of repository managers to address individual or groups of academics has been invaluable. Preparing for and capitalising on these serendipitous opportunities, such as RAE or institutional reviews have been used as focuses, bringing as they do a particular attention on research visibility. The discovery of hitherto unknown intermediaries and change agents is useful in itself, but also through the identification of receptive and willing audiences the repository administrator's job is much reduced.

However, this does mean that a marketing plan and core-message need to be ready from almost the very start, if available time is to be maximised. Many of the SHERPA Partner Officers also use milestone events, such as the 2,000th submission, as both celebration and minor additions to the institutional news cycle. In this way the

general profile of the repository is raised, and hitherto unreached authors may well initiate the cycle of serendipitous contact again.

Allies and comparators

SHERPA Partner Officers have been able in a non-antagonistic way to take advantage of institutional competitiveness. Jealousy can be a powerful motivating force for authors, departments or even institutions to reconsider their approaches to OA. As Partnership members SHERPA Officers had access to information on funding, policy, ethos and other approaches that might otherwise have been inaccessible. This knowledge was then utilised in many different areas, including the lobbying of senior administrative members for comparable resources; so as to ensure that each institution was not seen to be lagging behind. These efforts were not always immediately successful but gave rise to a rich evidence base on which to base business cases. Today UKCoRR, RSP and OpenDOAR provide ready sources of information on peer IRs, of use to the global community.

Comparison is not always external. Many SHERPA Partners have noted the use of reader frustration as a powerful driver for engaging academic deposit. Where some academics are depositing within a department or faculty, to doubtless student satisfaction, those members of staff reluctant to engage can be encouraged through the reminding of the increased impact of student course evaluations. In this way customer satisfaction can be a significant driver, and this is an area in which libraries can play a vital role in the identification of reading lists texts that are restricted in accessibility to short-loan collections and therefore which academics should be approached.

Enable effective deposition

In many ways this is the final advocacy goal, but the repository service must be possible to back up expressed promises and targets. Many Partnership advocates have taken the line that deposition is part of the publication process, ensuring wider readership for important work. For this message to strike home institutional community awareness of OA and repository advantages is essential, through the various stages outlined here. Some Partners have taken a more labour intensive method of directly approaching publishers where OA rights information is unavailable, a time consuming and variable success methodology. Others have taken the route of searching for new articles published by academics, and then seeking permission to deposit from the academics. For some institutions these methods work well, but within the Partnership they are a minority.

Much has been said by some advocates on the key roles of departmental or institutional mandates. A few of the SHERPA Partner institutions are exploring these as a way to fill a repository quickly. However, this issue can risk raising ire and hostility to the repository within the academic community. How important is the goodwill of the academic community in contrast to the effective retention of institutional IPR? This is a question that each institution needs to consider for themselves. It is essential if implemented to ensure that staff can cope with the maintenance and ingest of many more papers than may be self-archived

Achieve quick wins

Enhanced rapid population of a repository can be made possible through the use of more advocating personnel, although repository staff need to coordinate and ensure

all involved stay on-message. These helpers need to have awareness of planned future enhancements, as well as core service goals.

Metadata only or hybrid repositories, where some items are not available in full text can act as a stepping stone to successful population. Some institutions have used this approach to set targets, establishing if there are 4,000 research articles listed annually that success metrics can then be measured against the proportion deposited in full-text. However, end-users may become frustrated at their inability to access full-text. SHERPA has not advocated this approach, although some Partner institutions are exploring this route; ensuring clear displayed differentiation between full-text and bibliographic only records.

Involvement of administrative staff in departments as depositors on behalf of their academics has proved relatively successful, helping to overcome academic time concerns over deposition. If properly briefed administrative staff can act as effective advocates themselves; an especially powerful tool for those institutions with more limited staff resource. However, disengaging academics from the wider scholarly communications debate is a possible risk that can limit the availability of key external advocates in future interactions with publishers.

Facing the challenges

There are many challenges for advocating repositories and even slight barriers, be they technological, awareness, temporal; are enough to cause authors to not deposit frustrating administrator's efforts. Usability testing and effective customisation of repository platforms can be a great asset in reducing some of these issues.

Worries for longevity of some repositories remains an issue, with many IRs run on fixed term posts and funding. As well as generating high expectations for short timescale, when this is coupled with unrealistic entirely quantitative targets this creates a poor metric for success. Many of the SHERPA Partners have focussed on establishing quality over quantity through initially working with high-impact authors.

Advocacy fatigue is another factor, not repository staff but that of the academics. Increasingly time poor, academics are called upon to deal with all manner of new initiatives and issues. To be confronted at the end of a long research meeting about “one more thing” they have to do, is more than some can stand. Many SHERPA Partner Officers report dealing with negative and even hostile academics in this manner, and it should always be remembered that the first opportunity to speak with them may not be the most appropriate. However, with the support and experience of other key workers such as research support, librarians and IT it is possible to foresee likely potential problems and thus target advocacy appropriately.

However advocacy is a route to achieve the crucial goal for advocacy, real cultural change. This requires widespread engagement from and with academics but an uncertain amount of time and effort. Many seemingly effective meetings can still result in little ingest. Whilst operating in isolation this can be frustrating, with peer groups such as UKCoRR and the Partnership at least there are others who can be turned to for advice.

TOOLS & SERVICES

The information needs of repository administrators are many and varied. Thankfully there are many dedicated initiatives and services globally, many based in the UK, helping to alleviate these issues and provide invaluable tools.

SHERPA itself currently runs a suite of services for OA administrators. These include the RoMEO service, which gives summaries of the archiving rights that different publishers allow authors to retain. A complement to this is the JULIET service, which summarises the archiving responsibilities and requirements that funding agencies give as a condition of funding grants. OpenDOAR is the third part of this repository service, listing available OA repositories, and providing various tools for the community.

SHERPA/RoMEO & JULIET

The problem with variances in author retained rights is an area with which many repository administrators and authors struggle. Whilst some publishers clearly articulate the retained rights, it is notable that for the vast majority this information is either buried deep within portions of their website or not visible at all to even the most ardent searcher. In some cases the information can be located, but the legal lexicon in which it is written is incomprehensible. The majority of publishers support the right of academic authors to mount their own work online (ROMEIO 2006): however, some prohibit authors from using their work in this way as a condition of their copyright transfer agreement which they ask the author to sign.

The RoMEO Project (Rights METadata for Open archiving) was a JISC funded project (Project RoMEO 2003) at the University of Loughborough to investigate the rights issues surrounding the self-archiving of research in the UK community under the Open Archive Initiative Protocol for Metadata Harvesting (OAI-PMH). Through surveying the academic community it ascertained how research literature and metadata was used and how it should be protected. From this work, the RoMEO project created a list of publishers' conditions for self-archiving to eliminate these problems.

SHERPA developed the project outcomes into a database-driven searchable service and knowledge bank of information which it maintains. The site details the rights given to authors by around 300 publishers of peer-reviewed academic journals, making it possible to find out what permissions are normally given as part of each's copyright transfer agreement. Publishers aid in the site's quality assurance through relationships and dialogues with the SHERPA team.

RoMEO challenges

Maintaining SHERPA/RoMEO can be a challenge, but in providing this key resource to the global OA community the effort is worthwhile. Problems faced principally include the lack of information online on publisher policies or publisher reluctance, uncertainty or even lack of response to enquires. On occasion conflicting information appears such as two different sets or poorly phrased guidance; with unclear boundaries between learned societies and publisher ownership. Changes to publisher permissions are noted and the site is kept up-to-date, even if some rights change frequently. This means that as RoMEO grows in size and use, so too does the challenge of keeping the site current and viable.

JULIET

JULIET is a complement to the RoMEO service provided by SHERPA for authors and repository administrators, detailing the requirements from research funders mandates as they pertain to research outputs. Whilst this is a relatively new service, already the information is linked to the RoMEO site, allowing publisher rules and funder requirements to be viewed alongside each other. Like RoMEO it is quality assured through engagement with the various funding agencies.

OpenDOAR

A plethora of OA research archives have grown up around the world in response to calls by scholars, researchers and OA advocates to provide unfettered access to research information. Whilst there are a number of different lists of repositories and OA archives OpenDOAR provides a recognised quality-assured listing of OA repositories around the world (OLIVER & SWAIN 2006). Staff visit, harvest and assign metadata to allow categorisation and analysis to assist the wider use and exploitation of repositories. The manual audit, utilising a combination of auto-harvesting and visual site scanning, ensures a high degree of quality and consistency in the information provided (MILLINGTON 2006a). OpenDOAR is therefore primarily a service to enhance and support the academic and research activities of the global community.

Users of the service are able to isolate repositories by location, software platform, the material they hold and other filters. Thanks to an API this information is reusable by third-party service developers who need quality targets for their various mash-ups and tools; such as search engines or alert services. The site also offers communication, repository statistical information and repository policy creation tools

(MILLINGTON 2006b) as well as a simple content search engine; all of which offer considerable utility to the global community.

CONCLUSIONS

As online sites, repositories offer great potential for value added services for the research and author community that are just beginning to be explored. These include personalised publications lists, hit rates on specific papers and even citation analysis through following links to papers held in other repositories. Some of these services are at greater levels of development in various projects around the world. Metrics from downloads of particular papers are of interest to authors in identifying earlier when their work is valued by other scholars. These metrics may also be of greater interest in future research assessment exercises or institutional quality audits. The very immediacy of these statistics is already being explored by OA advocates within institutions and the research community; as well as for academics interested in discovering whom is making use of their work on a real time basis.

It is notable that it is not only publishers who have their own very particular interests and concerns over the developing OA landscape. In providing supporting services, resources and projects SHERPA, and similar initiatives, should continue to be careful to consider, consult and model the needs and engagements that each of these stakeholders possess in their developments. One of the goals of the RSP is to further understand the fluctuating needs of these groups, and ways in which they can be more readily supported to the benefit of OA and research communication.

Final thoughts

OA is a truly global movement with benefits for researchers and institutions and in the UK SHERPA has applied experience across its partnerships to develop useful guidance and support. Appreciation of the unique research culture of the institution is vital and advocacy has been the key to successful cultural change but as general awareness in the research community of OA and repositories increases, so new unique challenges appear over the horizon.

Thankfully tools and services exist to assist scholars and repository administrators and a developing network of practitioners helped avoid error duplication. In particular UKCoRR and the RSP will help enable all repository practitioners in the UK to enjoy the same real level of support, fellowship and peer-lead learning that the members of the SHERPA Partnership have enjoyed for some years. The future of repositories may not be certain, but for those working with them the landscape is now populated by sources and resources of help.

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