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Faculty Attitudes towards Open Access Publishing, E-Print Servers and Institutional Repositories

Abstract: This qualitative study investigates how faculty gather information for teaching and research and their opinions on open access approaches to scholarly communication. Despite generally favorable reactions, a perceived lack of peer review and impact factors were among the most common reasons for not publishing through open-access forums.

Résumé : Cette étude qualitative examine comment les membres du corps professoral recueillent l'information pour l'enseignement et la recherche, et leurs opinions envers les approches de la communication scientifique à libre accès. Malgré des réactions généralement favorables, le manque perçu de révision par les pairs et les facteurs d'impact comptent parmi les motifs habituellement évoqués pour ne pas publier sur ces tribunes à libre accès.

1. Background

Scholarly journals have been a cornerstone of the scholarly communication process ever since the near simultaneous emergence of the first two such publications in 1665, the somewhat more populistic French publication *Journal des Sçavans* and the British *Philosophical Transactions*, which is considered to have been the first real scientific periodical (Gascoigne, 1985). Over the course of the next decades, many of the structures that shape today's scholarly communication system were established: academic societies and commercial enterprises emerged as publishers of scholarly materials and the initially rather broad focus of the journals frequently became narrower (McClellan, 1979).

The last decades have brought with them significant changes of their own. Besides the introduction of electronic research publications, such as online journals and full-text databases, there have also been significant changes in the way scholarly journals are created and distributed. The concept of the "core journal," i.e., a scholarly publication which is essential to the work of researchers in a specific discipline and therefore needs to be acquired no matter how much it costs, was established following the creation of the *Science Citation Index* in 1961. While scholarly publishing had up to this point been the domain of learned societies and academic institutions, commercial publishers now realized the potential profits to be gained from creating and distributing scholarly journals and began to acquire or create publications they could market to the research community, particularly in the science and medical disciplines (Guédon, 2001). Furthermore, mergers within the publishing industry have reduced the number of commercial academic publishers and content access providers, thereby giving those few greater control over the licensing and pricing models that they offered to their clients. This control soon manifested itself in the serials pricing crisis when the prices of scholarly journals began to rise to such an extent that academic libraries in particular were forced to cancel subscriptions to non-core journals or divert funds that were originally earmarked for the acquisition of monographs in order to provide their patrons with the most important research publications (Mattlage, 1999; McKnight & Price, 1999; Prosser, 2003).

As a response to this situation, individual scholars and librarians, as well as many larger organizations, began to investigate methods for circumventing existing commercial publication structures and to create systems that would allow scholars to regain control over the dissemination of their work thus making it more affordable for libraries to provide access to these materials to their patrons. As part of this open access movement, several different approaches emerged. Besides the open access journal, these include e-print servers and institutional repositories; the latter being databases where researchers in a specific discipline or at a specific institution can self-archive their publications and thereby make them publicly available. Readers could then access them through specialized search engines or through so-called overlay journals which would provide links to archived papers that fit into their thematic scope and fulfilled their quality requirements.

While institutional repositories, in particular, have attracted much attention in the recent research literature (e.g., Ashworth, Mackie & Nixon, 2004; Bailey, 2005; Chan, Kwok & Yip, 2005; Davis & Connolly, 2007; Jenkins, Breakstone & Hixson, 2005; MacColl & Pinfield, 2002; Pelizzari, 2004; Phillips, Carr & Teal, 2005), their usage by faculty members generally falls short of expectations. For example, a 2005 survey by the *Canadian Association of Research Libraries* (CARL) of nine working institutional repositories in Canada (as compared to none in 2003) indicated that most of them only contained between 30 and 400 full-text records, with the largest one (4,000) being located at the University of Toronto. While the University of Calgary's repository indicated 14,000 items, 13,000 of those were just metadata records (Shearer, 2006).

The goal of this study was to investigate potential reasons for such low adoption rates and to see how scholars working in a field that lies outside of those areas that are making the most frequent use of open access publishing venues (i.e., the sciences) feel about open access publishing and self-archiving of their research publications through institutional repositories. In addition, participants were interviewed about their general publishing and research habits in order to better understand their attitudes towards the current publishing system and whether or not they would like to see changes in how new scholarly knowledge is communicated.

2. Study Approach
The present research project is a qualitative study which is based on Glaser and Strauss' Grounded Theory. This approach stipulates that the researchers are not to base the conduct of their investigation on a set of pre-established assumptions, but rather let the theoretical framework for their work emerge from the data they have gathered. In this case, the data was gathered through semi-structured interviews as well as a short questionnaire in which participants were asked about the types of materials they might feel comfortable with submitting to an institutional repository.

Researchers in the field of Education were chosen as participants in this study for several reasons. While much has been written about the information-seeking and publishing behavior of academics in the sciences and certain social science disciplines, education researchers have rarely been mentioned in the literature. Also, while they do not rely on journals as publishing outlets as much as their colleagues in the sciences, education researchers, like most scholars in the social sciences, use journals more frequently in their work than humanities researchers and might therefore be more likely to utilize institutional repositories for research and publishing (Case, 2002; Romanos de

Tiratel, 2000). Furthermore, at the University of Alberta, where this study was conducted, the four individual education-related areas that are represented at this institution are part of one faculty (which only includes one other department, the School of Library and Information Studies), whereas the humanities and social sciences are mixed together in the Faculty of Arts. Thus, all potential participants, i.e., faculty in the departments of Elementary Education, Secondary Education, Educational Policy Studies, and Educational Psychology, would be subject to similar policies with regards to publishing, service work, and teaching requirements.

Participants were recruited first through email messages on departmental listservs and then through individually addressed messages. Of the 102 faculty members who were active in the four targeted departments at the time of the interviews (June 2006), a convenience sample of 18 was included in the study. Of those, one was an assistant, ten were associate, and seven were full professors.

In addition to being authors of scholarly works, the participants were also acquainted with other aspects of the scholarly communication system. Five of them were editors or co-editors of academic journals and six had previously held such positions. Seven were active on at least one editorial board, and half of them had worked as reviewers for academic journals.

The interviews ranged in length from 23 to 77 minutes, with the majority of them lasting between 45 and 60 minutes. They were recorded using an Olympus DS-2200 digital voice recorder and then transferred to a PC for transcription and archiving purposes. Using EverNote 1.1, the coded and annotated transcripts of each interview were then organized into a set of categories that had emerged as being most relevant to the topic.

3. Findings
3.1 Publishing habits
The interviews began with questions about the participants' publishing and research habits in order to gain an understanding of how they normally accessed information and distributed their research results. Although participants frequently mentioned shifting between publishing media over time, only two indicated that they focused on writing books as compared to book chapters, articles, or other publications. As Harnad (Okerson & O'Donnell, 1995) mentions, such scholars would be less likely to publish through an open access venue, since one of the incentives for writing books is the financial renumeration, something that is mentioned by one participant:

> And it's fortunate in my career that my skills and my desire as a writer fitted perfectly in with the kinds of things that rewarded you in the Faculty and in as they say, financially as well because books make, if they're good, they do make extra money.

However, a more common strategy was to first submit a larger number of articles to academic journals before publishing them in book form "like you're supposed to do" in order to meet tenure and promotion requirements. In addition, journals were the type of research literature most commonly read by participants. Also, book chapters were mentioned occasionally due to their strong currency and the fact that quality requirements would generally be lower than for peer-reviewed journals.

Several participants were also actively publishing in non-scholarly publications such as professional journals or association newsletters. While books and articles in scholarly journals were often motivated by a need to fulfill publication requirements set by their institution, less academically-oriented contributions were frequently motivated by the scholar's desire to have a positive impact not only on the academic community, but also on those who would be directly affected by the results of their research. Peter, for example, described this desire to positively impact on society as follows:

> I was talking to somebody this morning and like we have a textbook, this is a little bit off topic, but you know, that has been out for 20 years […]. And I think over those 20 years I've had 2 or 3 people tell me that they've actually read the book and found something good about it, but I've written little things that have gone in newspapers and magazines etc. that, you know, you get like 400 emails in the next few weeks that people really are responding on an emotional level to.

3.2 Information gathering for research

When it comes to collecting the secondary literature for their research projects, the researchers in this study made use of a large spectrum of resources. While most still used print materials and would even buy them if they were particularly relevant, electronic resources, especially online databases, played an important part in their work, leading one participant to even state that if an article were not available in electronic form, she would not use it as it would take too much time to get it from the library.

Some would refer to conference presentations and even ask colleagues who attended a specific event to bring them handouts or other additional materials. "Invisible colleges," i.e., networks of scholars working at different institutions but who have common interests, generally played an important part in their professional life, thus following a trend that has been pointed out repeatedly in the research literature (e.g. Case, 2002; Meho & Tibbo, 2003; Romanos de Tiratel, 2000; Zuccala, 2006). Only a few participants revealed that they never or rarely participated in this informal information exchange system.

3.3 Criteria for research information

Once they have found an information resource, participants apply a variety of methods to evaluate the source's credibility and reliability, although, as one faculty member indicated, these methods had changed over the span of their career. Referring to a research methods course he had taught many years ago, Carl mentioned one criterion he used to give to his students: "if it was hard bound, it was better than if it was paper bound, which is better than if it was mimeographed." Nowadays, the format in which an article appeared seems to be unimportant and has been replaced with other types of rankings. While only one participant actually brought up a journal's ranking and impact factor as a way of evaluating a particular publication's value, several cited a more qualitative measure, i.e., the source's reputation. Again, Carl described the trust he placed in the quality of everything that would be published in such a journal: "If we have a bible, you know, anything that comes out in this journal, I know the reviewers. Even if I disagree with it, I have no problem citing it, because it, to me is a really reputable journal." For others, peer review played a similarly important role, with one participant even looking up unfamiliar journals in *Ulrich's International Periodicals Directory* to check whether they were peer-reviewed. In some cases, researchers would also trust works published in less reputable or non-reviewed journals if they were written by a well-known and respected author. Only one participant, Michael, mentioned a journal's affiliation as a decisive factor. For him, journals that were published by an academic

association seemed to be more credible than those coming out of commercial publishing houses due to their closer connection to the academic community.

Others either found key publications to be unsuitable for their work or took a more critical stance on the concept of core publications and the perceived superiority of some journals over others. Given his audience, Robert—who primarily wrote textbooks for the K-12 system—considered key academic text simply to be too complex and would instead focus on mainstream print and electronic resources. Peter, for example, mentioned severe flaws that he found in the work of prestigious authors who had published in highly ranked journals. Although he would fall back on articles that had appeared in top journals in order to bolster important points, he generally considered the reputation of a publication to be less significant. In James' eyes, the concept of journal rankings was "absolute bulls***" and he considered it to be "a fabrication of elitist culture" that would stifle innovation and preserve traditional modes of academic practice and thinking. Instead, he would use what he referred to as "alternative information sites" that had not gone through the filtering process of peer review and instead, as he put it, "knock[…] at the door of orthodoxy."

3.4 Selection of publishing venue

When asked about their criteria for selecting a publishing outlet, participants primarily cited the need for a thematic fit between their article and the journal. Also, many would attempt to publish in one of the journals they had used for their research. With regard to the publication's format, opinions were divided. Elizabeth, the most junior participant in the study, preferred print, since "having grown up in an era of print publication, there's still that idea that that's sort of the proper way to do things." Others would concentrate on electronic publications since this would free them from the restrictions of the print medium and allow them to include color images as well as audio and video samples. Charles attempted to find a match between the geographic focus of his work and that of the publishing venue, meaning that he would try to publish articles with an international focus in international journals, while those that were of special interest to a Canadian audience would be reserved for Canadian journals. Citing his desire to publish articles "where they can actually influence not a few other academics that will read them but teachers … whose practice will be affected by maybe what I've learned," Michael even tried to refrain from publishing through international journals and rather submitted his work to local outlets. For Peter, a journal's size would factor in his decision of where to submit his work. As he mentioned, he would do so not only to support smaller, often struggling publications, but also to make it easier for him to get his work published:

> Small journals are] having a hard time getting enough papers, so, you know, they're always begging for articles, and that, I mean, that kind of works both ways, in the sense that I know that I can get it published there, because unless it's really terrible, they'll tell me what I need to do to fix it up enough, because they need to get something in there.

Finally, Margaret echoed Michael's sentiments about commercial education journal when she pointed out her unwillingness to publish through them—"you wouldn't even bother sending anything to them"—and, unlike some of her colleagues, would also not publish through professional journals for teachers, which she referred to as "glossy with photo advertisements."

3.5 Peer Review

Among the arguments that are most frequently brought forth against the self-archiving of research results through e-print servers and institutional repositories is the fact that those materials can be made publicly available without having to go through a formal peer review process. Given the importance of peer review in the eyes of the general academic community and of the majority of the participants in this study, one part of each interview focused on the participants' attitude towards and experience with the scholarly peer review system.

Even though they were aware of problems with the currently existing system, most participants displayed a positive attitude towards peer review in general. Joseph summed this position up as follows:

> "You know I read quite a bit about problems with peer review and how it tends to be a very conservative process and so on and generally flawed. And I always think that what did Winston Churchill say about democracy? 'It's the worst form of government except when you compare it to all the others.'

When asked about the rationale for having a peer review process, participants listed three primary reasons. Most importantly, they saw peer review as a quality control mechanism that protected readers, particularly the less experienced ones, from relying on faulty or inadequately conducted research projects. Peer review provided them with feedback on their work and they also felt a sense of gratification if they received recognition for their work from their peers. Barbara even mentioned feeling disappointed when she thought that one of her articles—although it had been accepted for publication—had not been subjected to peer review, but was only read by the journal's editorial board. The participants were therefore frequently willing to work as reviewers themselves in order to provide others in their profession with the same support that they themselves had received. In addition, Michael mentioned two other reasons for reviewing articles. Besides getting access to recent research literature, he admitted that he enjoyed rejecting projects that did not measure up to his strict standards:

> Also, there's this prurient aspect to it, I would say that I think I get a little bit of an academic charge out of reading crummy research and responding negatively. I think sometimes I'm a bit of a curmudgeon, you know, I have high standards for research, for my own, and for other people. […] So I really don't mind dissecting other people's research reports, their papers.

Yet, the researchers also noted some severe flaws of the currently implemented process. For one, peer review frequently took too long. Joseph mentioned one case in which it had taken an article that he had written about a particular legal decision about one and a half years to go through peer review. During that time, a new decision had come out, and he had to ask the journal's editors for permission to rewrite the piece so that it would reflect the current legal status. In addition, most considered the concept of blind peer review to be an illusion, since they would often be able to guess the identity of reviewers and authors, especially if the articles dealt with smaller, very specialized fields. As for open peer review, in which the reviewers' comments are posted together with their names, Carl mentioned that he once reviewed for a journal that had employed such a process. He had felt uncomfortable with the system and found it hard to provide his honest opinion about the article.

Some participants thought that reviewers would, at times, not be qualified enough, not provide constructive feedback or, as Linda mentioned, lack the skills to do so in a

professional manner. On the other hand, journal editors might provide their reviewers with insufficient guidelines. Peter, for example, recalls a case in which he was sent a 27-page manual which turned out to contain mostly formatting instructions that were meant for authors. Furthermore, no matter how clearly defined the guidelines might be, reviewers are individuals with different biases and approaches to scholarly research and thus prone to apply different measures in their evaluative process, as Peter mentioned. As a former editor, he described how an article that he had submitted to a journal received much praise from a first set of reviewers and was published. About half a year later, however, the editor accidentally sent the article out to a second set of reviewers which resulted in "the two most negative reviews that I've ever gotten." Finally, Michael—who preferred to read unreviewed materials and instead judge by himself on their quality—believed that by the time scholars had gained the necessary experience and reputation to be effective reviewers, they had become too deeply invested in the scholarly establishment to be sufficiently unbiased and to accept research that might be valid, but contradicted or even threatened to overthrow the foundations of their disciplines. He noted:

> It ends up imposing a kind of conformity on the paradigms and the theoretical perspectives, and the direction of research, because the only work that's published is that which is reviewed by people who already have a stake in the kind of research that's being done, right? So new stuff tends not to be accepted as legitimate, so what you get is just more of the same, you know.

3.6 Why do they publish?
After discussing their publishing and research preferences and their views on aspects of the scholarly communication system, participants were asked to comment on why they actually participated in the often taxing process of researching and eventually publishing their results. For most, the primary motivator in the beginning stages of their careers was the "publish or perish" paradigm, i.e., the fact that they had to publish a certain number of articles and/or books in order to obtain tenure and receive further promotions. While this pressure tended to subside in most cases, Margaret mentioned how now that she was working in an administrative position, she no longer had enough time to research and publish at past levels of productivity that she now had come to expect from herself. As James saw it, the whole academic publishing system with its supposed emphasis on quantity instead of quality is influenced by an underlying capitalist ideology where "performance always takes precedence over meaning. In other words, produce, produce, produce." He mentioned one specific experience that showed him the negative consequences of this system of persistent pressure to produce on faculty members:

> You know, I was in a faculty meeting recently and every person there except me had a big SSHRC grant, they all had SSHRC grants, and so they were rolling in money and they all had graduate students working for them and everyone of them said "I can hardly wait until, for it to be over, so I can get on with what I really want to be doing". I thought, yeah, gee, there you go. They're doing what's expedient, you know, getting grants in all those areas that are sexy and get funded and this stuff. But, you know, they hate themselves as a consequence. Marx is right about the alienation of labor in all the context of capital formations. And even people with Ph.D.s are alienated from themselves and their work.

In addition, faculty generally received less or no recognition for work they distributed through professional journals or other, less prestigious channels, even though these might be publication venues that they considered to be more relevant to their target audiences, which would often include groups outside the academic community.

However, it was not just those external pressures that drove participants to publish. Many cited strong internal motivators. Peter, for example, mentioned that wanting to have a positive impact on society was the only justification for conducting research, as otherwise, "when you get lost from that, having that social impact, then I think it gets really alienating." Others mentioned a strong pride in their own work and the feeling that they owed it to their research participants to give their voices a wider audience. Finally, scholars like Susan stressed that they enjoyed the process of writing and having the opportunity to more deeply reflect on a specific topic. Likening research and writing to a personal journey, she defined writing as "one thing that basically forces us to reflect on what happened, to make sense in a different way, and to challenge us to communicate our understanding of what happened to other people."

3.7 Open Access Publishing
During the last stage of each interview, participants were asked about their familiarity with different open access publishing approaches and how they felt about them. Only a few of the researchers who were interviewed for this study had heard about issues related to open access publishing or were actually familiar with the above-mentioned reasons for creating an alternative scholarly publishing model. One participant had heard about John Willinsky's *Public Knowledge Project* that has developed open source applications for the delivery of electronic journals, while two others had been involved with freely-available electronic journals. While in the case of one publication it was a requirement by the funding agency that the journal should be offered free-of-charge, the editors of the second publication decided to forgo a subscription-based model in order to avoid the additional work created by maintaining the subscription database and fee collection process. The other participants associated the term "open access publishing" with blogs, wikis or other unmoderated publication media. They also were frequently unaware of the rising subscription costs for academic journals that had initially helped to spawn the open access movement since, as one researcher mentioned, "I don't feel the cost of subscriptions to electronic things because the library subscribes." Yet, they generally showed understanding of the movement's underlying goal of making research publications available for free and with little or no usage restrictions, as Carl stated:

> Well, I'll be honest. Any editor that I know that's worked on a journal doesn't get paid. Anytime I reviewed for a journal, I don't get paid. Anytime I submit to a journal, I don't pay or get paid. Where's all the money going? It's going to the publisher. Well, if we don't need a publisher, if we don't need the paper process and the mail process…why should we be paying somebody for this stuff, right?

3.8 Open access journals
Asked about their opinion on open access journals, participants focused on two points of concern. One was the question of whether these journals would be peer-reviewed, as many had previously thought of open access journals as unregulated publishing media that were more akin to blogs and wikis instead of traditional print or electronic journals. Yet, a more important issue seemed to have been the question of how these publications are financed. Especially in the case of open access journals in the sciences, publications are at least in part maintained by the fees authors have to pay during the submission process. Among the participants in this study, only Susan mentioned that she would be willing to accept such fees in order to be able to publish in such a journal. According to her, scholars are willing to pay to attend conferences where their potential audience is significantly smaller than that which they could reach by publishing their results. Others might have been willing to pay if it meant that they would be able to reach lower-income and disenfranchised audiences. However, most participants rejected the idea by pointing

out that grants—through which author fees are often financed—were much smaller in the social sciences than in the various science and medical disciplines. Also, they felt that if they paid to have an article published, this would automatically diminish its value in the eyes of the academic community. John, in his role as journal editor, personally experienced this rejection of author-financed journal articles when he thought about implementing such fees for his publication:

> I had thought of that approach when I first became editor and when I did that survey about, you know, formats and so on and that was one of the questions I asked, and almost universally I was told that if…I were to put that sort of thing in they would have nothing to do with the journal. So I took that as a strong indication against that.

3.9 E-print servers

As with open access journals, most participants were not familiar with the concept of e-print servers, even though some had used ERIC to publicly deposit copies of some of their work. Generally, the absence of a formal peer review process was considered to be the main drawback of this approach, a problem that also could not be overcome by allowing each reader to submit an evaluation of or comment on a particular article. Also, such a system would further contribute to the overabundance of literature that is already available, as James mentioned: "If you took all of the stuff that is published today in every domain and every field and discipline and put it all in one big pile, there's probably only 2 percent at the top that's actually worth reading." Yet, the researchers could also see some advantages that e-print servers might have over traditional publishing models. They would allow easier access to research materials, accelerate the dissemination of research results (even though this would not play as much of a role in education as in other disciplines) and allow the presentation of fresh ideas which might otherwise have been filtered out by the peer review process. While they might have been reluctant to use e-print servers for archiving and presenting their research articles, some participants thought that they would be particularly suitable for providing access to conference presentations beyond the original, generally fairly small, audience.

3.10 Institutional repositories

Again, most interviewees were unfamiliar with the term or concept, with only one of them having heard about it. After a short explanation, participants could see several advantages of institutional repositories, the first of them being the centralization of previously widely-dispersed institutional information, such as policies or administrative documents. By centralizing this information, it would be easier for faculty at the same institution to become aware of researchers who were working in similar areas but who belonged to different departments. Finally, there was the obvious factor of the repository functioning as a showcase for the institution's research output. Participants were concerned over institutional policies and how they would impact the submission and self-archiving process. On the one hand, mandatory submission policies, which had been implemented at some institutions, were met with skepticism. Also, Elizabeth warned of a potential "Big Brother"-like scenario in which the repository is used by the institution's administration to more precisely measure the research output of faculty members and even suppress work that is critical of the institution's actions. In addition, some participants voiced concern over the potential loss of control over their materials once they were submitted to the repository. On the other hand, the rejection of the idea of institutional repositories was sometimes simply based on the fact that some researchers would prefer to see their work organized in a disciplinary, rather than an institutional, context and would therefore prefer e-print servers to institutional repositories.

When asked about what impact self-archived articles and reports might have on their careers as compared to those that they had published in more traditional venues, the participants were undecided. While they were concerned about a lack of recognition of these sources by faculty evaluation committees and university administrators, they also recognized that they could not only achieve wider recognition, but it would also be easier to share their work with others. With regards to the types of materials they would either submit themselves or would like to see submitted by others, the most popular items were electronic theses and dissertations. In addition, most of them would submit administrative documents or finalized versions of their papers, whereas only two would be willing to openly share their works-in-progress. Similarly, only a few would offer public access to their lecture notes, be it for fear of having someone else use them or to facilitate last-minute syllabus changes. Speaking for this minority, Carl favorably referred to a recent policy change at the Massachusetts Institute of Technology that required instructors to make all their lecture notes publicly available since "we're always on the cutting edge, so by the time we get it onto the web, we're past it anyhow, so if they want to use it, that's fine." Other types of materials that participants suggested for inclusion in an institutional repository included, among others, oral histories collections and samples of exemplary work by undergraduate and graduate students.

Finally, one point that was brought up by several participants concerned the usability of institutional repositories, since technical hurdles might prevent them from self-archiving their articles, even if they were willing to do so. Thus, Maria suggested a possible division of labor between faculty members and, for example, librarians in the content recruitment and submission process:

> I mean, it's, it would be just another thing that faculty members would have to do, so it would have to be something like a web-based form that you can just go, this is my name, this is my department, attach a word document or any other kind of document, and there'd have to be somebody at the other end who could tidy it up and put it in the right place, and index it and everything else, at least a job for two librarians, right.

4. Implications of study results
In order for alternative publishing venues to succeed, they will need to offer scholars what they currently expect from a scholarly publishing system while at the same time demonstrating to faculty—and not just to institutional administrators—the advantages these new models, particularly institutional repositories, have to offer over more traditional approaches. As has been the case with several previously installed repositories, it is not enough to merely set up a system and then leave it without any further support. Instead, it requires a continuous effort to promote the service and increase the number of submitted documents. This commitment already starts during the initial planning stages, which should not only include administrators and members of the library community, but also faculty representatives and, ideally, graduate students, some of whom will eventually join the faculty and, as demonstrated by the participants in this research projects, often begin their careers as academic authors while still enrolled in graduate school. This way, key faculty members can be informed about the rationale for establishing an institutional repository. They, in turn, can help educate their colleagues and help alleviate concerns about supplementing traditional publishing approaches with these new models.

By creating the afore-mentioned overlay journals, it would be possible to maintain a peer review process even for articles that were not simultaneously published in traditional outlets. Also, by including metadata records for cited works, one could create citation analysis systems that could be more precise than current models by potentially including references from every published article instead of focusing on those that appeared in a pre-selected list of journals. In order to facilitate the submission process, there would need to be support staff who could help faculty members and continue to improve the submission mechanisms (Pelizarri, 2004).

Furthermore, it would not be enough to promote institutional repositories—as well as other open access publishing venues—as research distribution tools. Rather, faculty members (as well as researchers outside academia) need to be persuaded to use them as information sources for their research and turn them into viable alternatives to the traditional publishing system. Besides promoting already existing cross-institutional search facilities, the integration of repository content into a library's Online Public Access Catalogs (OPAC) could be a step in the right direction.

However, no matter which approach they take, implementers of these systems need to realize that in order for an institutional repository to be successful, it must be taken into consideration that such a project is not just a one-time effort, but rather requires a long-term commitment to improvement and promotion (Ashworth, Mackie & Nixon, 2004; Jenkins, Breakstone & Hixson, 2005; MacColl & Pinfield, 2002).

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