

# The Institutional Repository Rediscovered: What Can a University Do for Open Access Publishing?

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## Abstract

Universities have always been one of the key players in open access publishing and have encountered the particular obstacle that faces this Green model of open access, namely, disappointing author uptake. Today, the university has a unique opportunity to reinvent and to reinvigorate the model of the institutional repository. This article explores what is not working about the way we talk about repositories to authors today and how can we better meet faculty needs. More than an archive, a repository can be a showcase that allows scholars to build attractive scholarly profiles, and a platform to publish original content in emerging open-access journals.

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## Introduction

Universities have always been one of the key players in open access publishing. In particular, they took an active role with author self-archiving: universities provide many of the open access repositories to which authors can post articles destined for or published in subscription-based journals. After making a significant financial investment to build and support these repositories, though, universities have found themselves struggling to make them active and vibrant. They, too, have encountered the particular obstacle that faces this Green model of open access: namely, disappointing author uptake.

The existing arguments for author self-archiving are good ones. Self-archiving would give authors wider dissemination for their papers. It allows their research to have an impact in countries and institutions that could not afford to subscribe to the journal in which the paper originally appeared. Self-archiving is a service to scholarship, to the university, and to the research community. And yet, universities and Green OA advocates are both coming to terms with the fact that most faculty do not respond to the invitation to “add stuff to the IR”.<sup>1</sup>

Both universities and proponents of Green OA have thought long and hard about strategies to expand author self-archiving. They have put significant resources behind mandates, laws, and pressure on publishers. In the recent past, perhaps discouraged by author uptake, some universities have given up on the IR as a place for faculty authors. Instead, they have used their repositories to store their library’s digitized archives; after

all, this content is readily available, does not require taxing outreach to faculty, and has great value to the institution. As a result, though, faculty authors have become increasingly disconnected from the repository.

The best way forward, and the best way for the university to reconnect with its core mission and to support open access publishing, is to rediscover the IR as a place for authors. This requires an expanded sort of repository, and a new way of presenting it. The university has a unique opportunity to reimagine, to reinvent, and to reinvigorate the model of the institutional repository. To paraphrase Alma Swan and Sheridan Brown, universities, not funders, are the ones that can influence a whole body of scholars.<sup>2</sup>

What is not working about the way we talk about repositories to authors today, and how can we do better?

The way that it is often presented today, the institutional repository is a dead thing. It is a place where authors post their papers after the fact: after peer-review, after publication, after they are done with them. To faculty, “institutional repository” itself is an unappealing name – it connotes permanence, preservation, archiving, and documentation. It seems like a vault where papers go to die, after the exciting work of creation is done. Depositing to that vault is an obligation, not unlike filling out tedious forms and backing up your hard drive. As Anthony Watkinson put it in a recent email post, “There is a real difference between an institutional repository that exists to serve faculty and an institutional repository that is part of a mechanism telling me what I must do.”<sup>3</sup> Several surveys have shown that faculty are not motivated by “digital preservation” and do not perceive the benefit of an “institutional repository” as they currently understand it.<sup>4</sup>

It’s hard work to engage faculty. It becomes easier when you can ride the tide of their already well-established practices, rather than fight them with laws and mandates. Self-archiving fights the current: it has never been the best paradigm for faculty and the university. The university’s core mission is to advance research and scholarship. It is secondarily to archive content and to make research publicly accessible. Faculty behavior and incentives are aligned with the core mission, rather than the secondary one. Shouldn’t the repository be too?

What if, in addition to an archive, an institutional repository were a place for authors to create and publish scholarly content in the first place? What if it were a showcase for scholars to create, manage, and share their own scholarly profiles? What if it were a platform for scholars to run their own open access publishing operations? What if it provided services to faculty: outreach and education to help scholars navigate the complexities of open access, better understand Web 2.0 and its impact on research dissemination and discovery, and use it to further their careers?

Compare this to the mission statement, for example, of DSpace: “DSpace is a free, open source software platform that allows research organizations to offer faculty and researchers a professionally managed searchable **archive** for their digital assets. DSpace focuses on simple **access** to these assets, as well as their long-term **preservation**” (emphasis ours).<sup>5</sup> But we’re no longer talking about a repository as only an archive for

preservation and access. Instead, we're talking about a repository as a full-featured scholarly research and publishing system, with tools and services that each university can provide their faculty members to facilitate communications and publications that are digitally native and open access from the start.<sup>6</sup>

In short, to expand the repository as an archive, we suggest the repository as a showcase and a platform.

### **A new paradigm for IRs: repository as showcase**

As the creators of Digital Commons, the leading institutional repository software, The Berkeley Electronic Press has worked closely with universities to devise strategies customized for institutions that make the repository a place for active scholarly activities, rather than just a place for static archiving.

What truly engages faculty? As self-archiving supporters have already pointed out, faculty want to disseminate their research broadly, and an open-access repository would help with that. However, faculty also want to establish an intellectual profile, they want to display and organize their research in a way that builds their profile, and they want to disseminate their research to the colleagues who matter to them. Faculty do want to create an online professional identity, and present it to the world. But they seek control and ownership over their online presence, and they want it to be visually appealing. They are not content to be the result of a database query on an institution-wide repository. Uploading to such a repository may be a duty to one's campus, and it may be a way to get indexed in Google, but it is not a way to build and design one's own scholarly profile.

If the university repository does not meet these needs, faculty often go off campus to find what they need. When a university repository does meet these needs, in contrast, universities also benefit from greater faculty self-archiving. Imagine a repository whose point of entry is a personal scholarly web page that the author controls. The author chooses what content to upload, what to make public and what to share only with colleagues, what headings to use, how to organize the content, what photo to use, and what links to add. The author can disseminate content judiciously: she chooses which colleagues to notify of new postings, and colleagues can choose from which author sites they wish to receive notification. The author receives download reports that track how many colleagues clicked on which pieces. Rather than upload papers to a distant vault that one would never visit oneself, scholars can use a personal scholarly web site to showcase their intellectual profile.

Digital Commons uses such an approach very successfully: SelectedWorks is integrated with the hosted repository platform so that faculty points of entry are actually their personal websites, rather than an upload form that sends one's paper off to a vault-like database. SelectedWorks is designed to look nice: it is something that authors want to be associated with, and want their colleagues to see. A SelectedWorks site can include any sort of material: post-print, working paper, conference paper, PowerPoint slides,

classroom notes, etc., and authors can organize the content in any number of ways. Authors also have control and receive feedback about who reads their site, through contact lists, email announcements, and reports. (It prints beautifully, too.)

Indeed, in their 2005 study, Swan and Brown report that the most frequent type of self-archiving (that still only 31% of respondents practice) was onto scholars' personal web pages. It is a publication format that faculty can control and design. Currently, over 2,500 scholars have SelectedWorks sites, onto which they have posted over 20,000 articles. SelectedWorks subscribers receive extensive outreach and education services. We don't even mention self-archiving to faculty. Instead, we help them connect the dots between the Internet, self-presentation, research dissemination and career development, and we also offer support to navigate thorny copyright issues. Even the best showcase benefits from an educational campaign. A beautiful and user-friendly showcase on its own will attract a greater number of faculty users than a traditional repository as an archive. We have found that, with active outreach and education, it can attract still far more.

A component like SelectedWorks, then, transforms a repository from an archive into a scholar's personal research showcase. In this model, the repository is first a place for the author to showcase a scholarly collection and a scholarly profile, and has the welcome effect of contributing pieces to the institution's repository and to the world at large.

### **A new paradigm for IRs: repository as a platform for peer-reviewed journals**

A repository as a faculty research showcase, then, goes a long way to solve the self-archiving problem. Indeed, that's why we designed it. But there is a second way to reinvigorate the IR, one that takes the IR beyond self-archiving altogether, to repositories as a platform for the creation of peer-reviewed journals.

According to Swan, IRs do not do peer review, and they do not publish letters, editorials, book reviews, etc.<sup>7</sup> This may be reassuring news to commercial publishers concerned about losing their competitive edge, but it significantly undersells how powerful a repository can truly be. The repository has up to now been limited to the Green (self-archiving) model of open access. We suggest that it is a place for Gold open access as well: a platform for journals that are open access from the start.

Peer-reviewed journals have the potential to dramatically invigorate repositories and engage faculty and universities. An open access repository that publishes peer-review journals is a powerful thing: as we shall see, it brings into harmony the various goals of the various stakeholders. Scholars want to certify and evaluate new research, and they want to collaborate within research communities. Libraries want to create vibrant repositories that showcase and preserve their faculty's research. Universities, spurred by a recent report from Ithaka entitled *The University as Publisher*, seek a greater role in publishing.<sup>8</sup> The open access community (and research funders) seeks more open access content and lower barriers to entry for new journals. By aligning all of these objectives, a

repository that can host peer-reviewed journals would tap into powerful multilateral support that repositories lack today.

To meet the objectives of scholars in particular, peer review is an essential extension for the IR. Today, many scholars are suspicious of online scholarship: they worry that open access repositories have no quality filters, and have repeatedly requested the sort of quality assessments and evaluations that peer review is designed to make.<sup>9</sup> From a scholar's perspective, the peer-review journal is been the best, tried-and-tested format to organize scholarship and create academic value. To post writings for colleagues, read what they write, critique and evaluate their work, assign value, see what value other colleagues have assigned, and rank according to value: these are fundamental academic practices. If anything, Web 2.0 proves that peer-review should remain the central way to organize and evaluate online information. Peer-review is now everywhere – Google, YouTube, Epinions, NetFlix. The academic community has worked this way for decades, and we are now able to give scholars the tools to do it faster and on a larger scale.

The online journal is also just the right unit for online academic community and collaboration. Scholars who are interested in similar topics converge. They write and read for one another, and build a set of questions and research agenda. They evaluate and certify work in the field that they have defined. They set their own standards for evaluation; they comment on those standards and reinvent them collaboratively. The work that is certified becomes discoverable, not just to members of the community but, thanks to the Internet, to anyone who uses a search engine, or anyone who signs up for email announcements of new journal content. Others, in turn, might join the community and themselves contribute, as reviewers, authors, and collaborators.

Meanwhile, universities have a growing interest in their potential role as publishers. We suggest that if an institution wants to get involved in publishing and enrich its repository at the same time, the best thing it can do is to give its scholars the tools to launch and publish their own open-access peer-reviewed journals on institutional repositories. There are certainly other ways for scholars to launch journals. However, journals published on its institutional repository add to the university's own showcase; thus, it is in the interest of universities to include online journal publishing tools in their repository, and make them easy and visible to their faculty. With university support, and with simple and easy to use tools, we see repositories becoming the most viable alternative for scholars to create open-access journals.

Finally, libraries have a mandate to preserve and showcase their institution's intellectual output. With faculty members better incentivized to create and contribute more content, libraries will have an increasingly important role to ensure that content is accessible today, and available for generations to come. Indeed, we see a significant new role for librarians when it comes to supporting and preserving the new campus-born journals published on repositories. A repository as a showcase and platform can be a fulcrum that brings about new ways for librarians to collaborate with faculty.

## **A Window onto “University as publisher”**

We are happy to report that the vision laid out in the Ithaka report is already happening. Today, Digital Commons repositories host approximately seventy peer-reviewed journals, across over fifty sites. We are building new journals for DC subscribers as quickly as we can, and continue to find pent-up demand. Up to now, neither we nor the IR administrators had promoted or marketed this particular feature of Digital Commons; scholars have launched these journals at their own initiative. And readers are interested: as Paul Royster writes elsewhere in this issue, the Digital Commons repository at the University of Nebraska found that original content, rather than archived content, is the most actively downloaded on their repository. We are at the beginning stages of a veritable groundswell, and it is exciting.

Published online-only, Digital Commons journals use web-based submission and peer-review management software (EdiKit, the same editorial management software that powers the journals that we ourselves publish at bepress). Like all Digital Commons content, the journals benefit from features such as search engine indexing, email sign-up, and wide dissemination. They also benefit from the support and advice of The Berkeley Electronic Press, a successful journal publishing company. Our client services team trains all new editors and coaches them in the workflow and operations for managing a peer reviewed journal.

As a whole, these “campus-grown” journals share some traits. They follow a traditional journal format. They publish peer-reviewed scholarly content, in volumes and issues. They have aims and scopes that state the journal’s mission and its selection criteria. At the same time, the journals do lack some of the signs of professionally published journals. While some have substantial content flow, others publish only a few articles per year, and intermittently at that. While indexed in search engines such as Google, Google Scholar, and archived in the university’s own repository, the journals are not indexed by major services such as PubMed or the Thomson/ISI citation indexes. Their minimum expenses of publishing are covered by the university, and the journals do without marketing, promotion, copyediting, indexing, or any of the other services that professional publishers provide.<sup>10</sup>

Looking across these 60-some journals, it becomes clear that the campus-grown journal format is best suited for a distinct few types of journals, with one essential point in common: these journals are unlikely candidates for commercialization, either via library subscriptions, author fees, or advertising. The journal’s field of study may be regional, it may be small, or it may be untested; in all cases, there would be insufficiently many interested libraries to subscribe, and too few authors to charge. But such journals – albeit with low content flow and small audiences – still have great value. Through a repository-as-platform, the university can provide a home for a wide variety of valuable journals that do not fit traditional business models for publishing.

**Journals in niche and non-commercial fields** This is the largest category of journals. Predominant among them are valuable humanities niche journals that would not have

found a home with commercial publishers, such as *Rasenna: Journal of the Center for Etruscan Studies* (University of Massachusetts) and *Russell: The Journal of Bertrand Russell Studies* (McMaster University).<sup>11</sup>

**Journals in emerging fields** Some niche fields might grow into substantial research communities. Repositories provide an excellent low-cost testing ground to see if an emerging field has staying power and can draw attention and more readers and contributors. Examples are *Opolis: An International Journal of Suburban and Metropolitan Studies* (University of California), *The Journal of Technology, Learning and Assessment* (Boston College) and the *Journal of Comics Research* (University of Nebraska).<sup>12</sup> Any of these fields may evolve into major international areas of research, and may eventually draw the attention of commercial publishers. By providing a low-cost, low-risk way to explore and create a research community, the university is serving its mission to expand the boundaries of knowledge.

**Regional journals** Journals such as the *Journal of Texas Music History* (Texas State University)<sup>13</sup> and *California Agriculture* (University of California)<sup>14</sup> represent fields of study that are specific to a certain region, and that make a valuable contribution to the community around the sponsoring institution. In the case of both the journals above, the sponsoring institutions are public research universities, very natural sponsors for a journal of regional interest. A journal such as *Mathematical Journal of Okayama University* (Okayama University, Japan)<sup>15</sup> represents a broad field, but focuses on the work of its own community of scholars. A service to the campus, the community is nonetheless too restricted to allow sustainable commercialization.

**Student-run journals** Editing and publishing in a peer-reviewed journal can be a very valuable activity for students. Macalester College, for example, sponsors several student-run refereed journals through its Digital Commons repository, that reflect the vibrant and ambitious caliber of its undergraduate program: *Studies in Mediterranean Antiquity and Classics*, *Macalester Islam Journal*, and *Macalester Journal of Philosophy*.<sup>16</sup> These journals support an institution's educational mission, and are better suited to be financed by the university than by the authors or by a commercial press.

**Practitioner journals** Journals such as *Cities and the Environment* (Boston College) and *International Journal of Professional Aviation Training & Testing Research* (Oklahoma State University) bridge academic and practitioner audiences to include non-scholarly content such as case studies, tips, and best practices.<sup>17</sup> Practitioner-hybrid journals are especially common on repositories and in other home-grown open access formats: it may be a market that professional academic publishers are not prepared to serve, in which case the university is providing a truly valuable service by giving them space and support.

**Monograph collections** The University of California Press has used its institution's repository to publish electronic peer-reviewed collections of monographs and edited volumes.<sup>18</sup> We think this is a very promising approach to solving the monograph crisis,

and represents yet another way that peer-reviewed publishing on repositories may be the way of the future.

Most of the categories outlined above hold true for open access journals published elsewhere, for example using the Open Journal System (OJS), and listed on the Directory of Open Access Journals.<sup>19</sup> There are, however, some instructive differences. On those two sites, one will find more technical journals and journals about open access publishing. This is because open-source systems such as OJS are harder to use; and more likely to draw editors comfortable with managing open source software and a do-it-yourself approach. As a result, many humanities journals are left out in the cold.

DOAJ also lists major open access journals, such as the Public Library of Science journals, that are quite large and successful thanks to significant grant funding. Those journals in fields that tend to be well-funded; a journal of Bertrand Russell studies, for example, could not function on the PLoS model. Instead, it has found a free home on the McMaster University Digital Commons site.

Not every journal with intellectual value is a good fit for a commercial publishing house or for grant funding. As Joe Esposito puts it, “This is the ideal province of open access publishing: providing services to authors whose work is so highly specialized as to make it impossible to command the attention of a wide readership.”<sup>20</sup> But nor should those journals and their editors be relegated to do-it-yourself open source software and hosting. While OJS is a good product that has been widely adopted by those skilled in IT, it does not meet the needs of a vast number of potential editors: those unable to find their own web hosting, grapple with open source software, hire a student to help with web design, and create from the ground up features such as email distribution, indexing, Google optimization, not to mention ensure adequate preservation for the future.

By supporting such journals, the university offers a tremendous service to its faculty, and a great benefit to the research community at large. It would allow communities of different shapes and sizes to have their own peer-reviewed research outlet. Without commercial pressures, editors can define their own community – it could simply be their colleagues down the hall, as for the *Mathematical Journal of Okayama University*, or it can be an emerging community that is created as it is being defined, such as the *Journal of Comics Research*. As Esposito puts it, “Open access is most meaningful within a small community whose members know each other and formally and informally exchange the terms of discourse.” Any community creates better research when it has the opportunity to establish its own best practices of selection and evaluation.

This new model of publication – peer-reviewed online journals on open-access university repositories – brings significant benefits to all stakeholders. Faculty members get quick and easy tools to run peer-reviewed journals for their research communities, tools that also come with much-needed support and encouragement from their university. Universities get lively and vibrant content in their repositories. They also get a foothold in journal publishing, without becoming full-fledged professional publishers with complex marketing and sales operations.<sup>21</sup> University libraries get to capture and

showcase their faculty's valuable work and develop new roles vis-à-vis faculty research. Finally, the open access landscape gets an influx of open-access peer-reviewed journals that would not otherwise have had a home. We believe that the institutional repository can become a centerpiece for university publishing, one that allows universities to play a new role in the emerging landscape of open access publishing.

## **Conclusion**

The success or failure of self-archiving mandates should not cloud the fact that the university has the power to make a better repository, one that goes beyond self-archiving to serve faculty's core needs. Consider Watkinson, who contends that "the mandates proposed are only necessary because faculty persistently refuse to fit in with this new agenda which does not represent their needs or wishes."<sup>22</sup> We believe it is time to put faculty back in the picture, and to address their needs and wishes. It is time to reinvent the repository as a place to produce, showcase, and share an institution's exciting and original research.

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NOTES

1. If there has been growth, it has been slow. Swan's 2005 report at Key Perspectives shows a growth from around 10% to 20%. Growth is good, of course, but the overall numbers are not enough to make a movement. "How [and why] publishers can work with institutional repositories." Presented at the Society for Scholarly Publishing's annual conference, Boston (June 2005). Available at <http://www.keyperspectives.co.uk/openaccessarchive/Conference%20presentations/Swan%20-%20SSP%20presentation.pdf>.
- <sup>2</sup> Alma Swan and Sheridan Brown, *Open Access Self-Archiving: An Author Study* (Truro, U.K.: Key Perspectives Ltd., 2005). Available at <http://www.keyperspectives.co.uk/openaccessarchive/reports.html>.
3. Anthony Watkinson, email to [liblicense-1@lists.yale.edu](mailto:liblicense-1@lists.yale.edu), November 25, 2007.
4. One survey reports on thirty faculty members at the University of Rochester. Susan Gibbons, "Making the Repository a Success with your Academic Staff" Rochester, NY: University of Rochester, June 29, 2006), 20. Available at <http://www.apsr.edu.au/successful/gibbons1.ppt>. A second survey studied content recruitment leaders from fifty-four institutions with IRs. John Potter, "Perceptions about Content Recruitment Strategies Over Time," *Journal of Institutional Repository Research* 1 (2007): 1-8. Available at <http://www.freewebs.com/academicportfolio/perceptions.pdf>.
5. "DSpace: Durable Digital Archives," <http://web.mit.edu/edtech/casestudies/dspace.html> (accessed December 13, 2007).
6. In this paper, we will focus on academic institutions' repositories. However, all our observations and comments apply to disciplinary repositories and non-academic repositories, which can also be sites for active content production and could offer the tools to support peer-reviewed journals for their communities.
- <sup>7</sup> Swan 2005.
8. Laura Brown, Rebecca Griffiths, and Matthew Rascoff, *University Publishing in a Digital Age* (New York, NY: Ithaka, 2007). As the report puts it, universities are seeking ways to "revitalize the university's publishing role and capabilities in this digital age" (6). Available at <http://www.ithaka.org/strategic-services/university-publishing>.
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10. Including, as Joe Esposito puts it, "the marketing efforts of a traditional publisher, including the association with a journal's highly regarded brand." Joe Esposito, "The Nautilus: where – and how – OA will actually work," *The Scientist* 21 no.11 (December 2007): 52. Available at <http://www.the-scientist.com/article/home/53781/>.
11. "Russell: the Journal of Bertrand Russell Studies," <http://digitalcommons.mcmaster.ca/russelljournal> (accessed December 13, 2007).  
"Rasenna: Journal of the Center for Etruscan Studies," <http://scholarworks.umass.edu/rasenna> (accessed December 13, 2007).
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14. "California Agriculture," <http://repositories.cdlib.org/anrcs/californiaagriculture> (accessed December 13, 2007).

15. "Mathematical Journal of Okayama University,"  
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18. "University of California Press,"  
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19. "Open Journal Systems,"  
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"Directory of Open Access Journals,"  
<http://www.doaj.org> (accessed December 13, 2007).
20. Esposito 2007.
21. Universities and administrators recognize that the university's core competencies do not include running a journal business: neither editorial management nor peer-review workflow nor acquisitions nor marketing nor sales.
22. Anthony Watkinson, email to liblicense-1@lists.yale.edu, November 22, 2007.