Why open access? The policy environment and process on one university campus

When the Academic Council at Duke University adopted an open access policy in March 2010, they both enacted a legal mechanism for archiving scholarship in Duke's institutional repository and expressed a set of values in regard to access to research. From the legal perspective, the policy grants to the University a license to archive all peer-reviewed scholarly articles in the DukeSpace repository, which is managed by the University Libraries. That license is broad, but there were clear limitations on its implementation expressed by the Academic Council. From the point of view of values, this policy is a clear statement that research is undertaken for the benefit of society as a whole, and that improving access to the products of that research is beneficial to the researchers themselves, to the University and to the global community. This article explores the path Duke followed to develop and implement such a policy.

Getting to 'Yes'

The impetus to write an open access policy and shepherd it through the Academic Council came initially from the Duke University faculty itself. In 2009, the University Provost convened a group of faculty members and librarians (including the current author), under the name 'Digital Futures Task Force', as part of an initiative funded by a grant from the Andrew W Mellon Foundation.[1] The co-chairs of the Task Force in 2009, Paolo Mangiafico, the newly appointed Director of Digital Information Strategy,[2] and Professor Cathy Davidson, presented the Task Force with some options regarding its focus for its first year. Rather surprisingly, the Task Force elected to focus on open access to research articles and to champion a policy similar to the ones that had recently been adopted by faculties at Harvard University and the Massachusetts Institute of Technology.

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The Task Force immediately set out to craft an initial policy document. Because of the models adopted by other institutions in the two years before Duke's initiative, it was not very difficult to craft this initial document. Indeed, Harvard University has made available not only its own policy but a model of open access policy language that explains the potential reasons for, and consequences of, different drafting decisions.[3] The Task Force did, however, adjust the policy text as needed; one significant change was to ask that articles be deposited promptly in DukeSpace even when the faculty author wished to delay open access or even to opt out of such access entirely. This ability to 'embargo' access, and to collect preservation copies of articles even when they would not be made public, were both features that seemed important to the Task Force.[4]

Once the Task Force agreed on the language to propose, members began a year-long process of attending many meetings with faculty members, explaining why we believed that the policy was needed and would be beneficial. We had many frank discussions, answered lots of questions, and made changes to the wording of the policy as we considered the feedback we received. During this time, we also had the language of the policy reviewed by the University's Office of Counsel.

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Three broad areas of concern arose as a result of the meetings with faculty. First was the question of whether open access to scholarly articles really was the best step for authors to take. Here, there was a good deal of concern about the impact of open access policies on traditional publishers, especially on small scholarly societies. Second, we heard concern about whether a University-wide policy was the appropriate way to support open access, especially in light of the differences in publishing expectations and opportunities across different disciplines. The third broad area of concern, and perhaps the one that engendered the most conversation, involved how the policy would be implemented. There were widespread concerns that the policy would cause extra work for faculty authors, who are already extraordinarily busy with research, teaching and administrative responsibilities. Also, many were worried that they would have to spend time negotiating with publishers over the terms of their agreements each time they published a new article.

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These questions were most often fielded by librarians, either those who attended meetings as members of the Digital Futures Task Force or those with subject liaison responsibilities who were 'cornered' and asked questions.

In regard to concerns about publishing, we repeatedly reminded our faculty authors that a majority of journals do allow authors to retain or, more accurately, license back to authors, some rights to 'self-archive'. These retained rights were added into author contracts by the publishers themselves, so exercising those rights could not be seen as a threat to these traditional models of publication. In these discussions we reiterated our intention, about which more will be said later, to never put a faculty author in the position where his/her obligations under the open access policy caused a conflict with his/her contractual obligations with a publisher. More broadly, we directed faculty to the numerous studies that document a 'citation advantage' for open access articles,[5] pointing out that authors gain reputational and employment benefits from open access at the same time that the speed and efficiency of research is improved due to faster and broader availability of articles.

The fact that our policy, and all similar policies at US institutions, had a waiver clause was an important fact that reassured authors who worried about their publications and the attitudes of the publishers with whom they work. The policy can be waived at the request of the faculty author; we decided not to require a justification but to simply honor any such request to opt out of the policy. It is because of this ability to waive the open access policy that we say that our policy changes the default model from toll access to open access, but is not a mandate. We also had to distinguish between a waiver, which is automatically granted when requested by the faculty author, and the irrevocable nature of the license created by the policy, which prevents the license from being retracted by a subsequent holder of the copyright in any covered articles.[6]

One way we conveyed the benefits of open access to the research enterprise as a whole was to tell stories that illustrated the access problems created by the traditional, subscription-based system. One such story concerned the struggles of faculty in the chemistry department of a small liberal arts college who had no access to current chemistry content due to the cost of the journal subscriptions. Another story that had particular impact was about a Duke undergraduate who was serving as a Congressional intern during the 2009 health care debate, and how his ability to consult expensive databases of research literature (because of his status as a student at a University with many such subscriptions) became important to legislative aides who lack his degree of access. That an undergraduate might have better access to information about health care than those charged with reforming the system was deeply concerning to our faculty and really drove home the access problem that our policy hoped to mitigate.

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The questions about disciplinary differences highlighted a real imbalance in attitudes toward open access. Generally speaking, the practice of distributing articles freely on

the internet, and sometimes in different versions, is much more acceptable in the natural sciences than it is in the social sciences or humanities. Even within these broad categories, significant variations can be found. Physicists are more comfortable than chemists with open access, and economists more comfortable than literary scholars. For many humanists, of course, the standard unit of scholarship is the monograph rather than the article. This fact, and the waiver clause discussed above, were important in convincing the humanists on the Academic Council that the policy was the right thing to do and, for them, at least, relatively unthreatening.

Before we turn to implementation, we can complete the story of the adoption of Duke's open access policy by reporting that the proposal was adopted unanimously by the Academic Council. For many, this approval was viewed largely as an endorsement of open access in principle, and a conditional 'wait and see' attitude, especially in regard to the method of implementation, before committing to their actual participation. But the support for open access as such was very strong, and it was clearly based on the advantages that faculty authors saw in terms of visibility, citations, the speed of research and the possibility of interdisciplinary relationships that it might uncover. The public benefits, including availability to wholly unexpected readers, as well as less well-financed colleagues, were also of great importance. Finally, one researcher reported that an article he wrote that had attracted press attention got much better, more accurate reportage because it was openly available and so could be read in its entirety by the reporters who were writing about it. All of these factors lead to a unanimous vote.

Getting on with it

The Academic Council charged the University Libraries with implementing a system for open access that would be as convenient as possible. We had promised that we could build a system that was primarily 'reactive', meaning that work would be uploaded to the DukeSpace repository[7] whenever possible without the need for the author to do anything at all; they would be contacted only after the 'harvest' so that they could either approve what had been done or ask for a waiver of the policy. Because we had promised not to assert the license created by the policy in a way that would conflict with later contractual obligations, we needed to harvest citations of our faculty work and sort them based on the policies of the specific journals in which they were published. This work was initially done by an intern employed for the purpose by the Libraries. His work was overseen by the Director of Scholarly Communications, the Director of Digital Information Strategy and the Repository Manager.

After several pilot projects with smaller groups of articles to develop a work flow and uncover the inevitable problem areas, an initial harvest was done that gathered approximately 12,000 citations to articles published by Duke authors between the adoption of the policy and the date of the citation gathering. Of these it turned out that about 10 – 12% were published in journals that allowed archiving of the final published version of the article, most immediately, but a few after some specified embargo period. These were the articles upon which we focused. When the upload of this material was complete, we sent an e-mail message to every author whose article(s) had been uploaded to DukeSpace, giving each of them a chance to object and opt out of the policy on which the archiving was based. To our surprise, not one single author sought to waive the policy. Faced with a fait accompli that had cost them no effort and which did not endanger their relationship with their publisher, since it took into account the policies of those publishers, every single author accepted what had been done. Some did write to make suggestions about technical changes, which was very helpful feedback, but the most common response was for authors to send us more citations, and sometimes manuscripts, because they wanted to build up their open, online presence.

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Based on the results of this initial foray into pro-active archiving, the Libraries have purchased software that will make the process of harvesting citations, determining the

rights situations and upload as allowed by contracts much easier. The Symplectic 'Elements' package will give faculty authors more control over their online representation and also increase the ease with which they can upload manuscripts in those frequent cases where the publication contract only allows the archiving of the author's final submitted manuscript rather than the final published version.[8] Simultaneously, with the implementation of the Elements software, we are continuing to upload articles from our initial harvest, and from an additional special project. Some time is also spent on the materials submitted to us directly by faculty (in response to that initial e-mail) and to articles that are written by our University News and Communications department, with whom we are developing a mutually beneficial relationship. The process is significantly slower, of course, when we have to request an author's submitted manuscript. And while there is a web-based portal for authors that allows them to submit articles without our intervention, this has been used very seldom. Our experience, like that of several other campuses, is that mediated deposit is labor-intensive but far more successful than relying on true 'self-archiving'.[9]

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Where we are now

In legal terms, the open access policy adopted by the Duke Academic Council is a non-exclusive, irrevocable, royalty-free, worldwide license to deposit their peer-reviewed journal articles into the DukeSpace repository and its successors. Once in DukeSpace, those articles can be accessed by anyone with an internet connection, and they are indexed by Google so are very easy to find. We often told our faculty that a further benefit of the policy was that it meant their research would show up in a Google search on their names ahead of their 'Rate My Professor' pages. Through its adoption by the Academic Council, the open access policy has been made a part of the faculty Handbook and is thus part of the terms of employment for each Duke faculty member. However, because of the waiver clause, and because we are implementing it in a way that avoids any conflict with publications terms and later transfers of copyright, the policy stops short of being an absolute mandate. Rather, Duke has endeavored to change the default for how research is disseminated. Our faculty has made clear that they believe that research results should be open to anyone who wants to see, read and use them, and that the benefits of such access outweigh the difficulties involved in achieving it. This is seen as a worthwhile investment of University resources.

Open access is an expanding movement and a growing commitment. The vote to approve a faculty-wide open access policy was only a part of Duke's support for and leadership in this area. The University also participates in the Compact for Open Access Publishing Equity by maintaining a fund to help reimburse the article processing charges levied by some open access journals. Although our policy facilitates self-archiving (the 'green' road to open access), faculty authors need to be free to select the journal and method of publishing that suits them best and serves the needs of their discipline. Hence the support for 'gold' open access as well; a growing number of faculty authors is electing to publish in journals such as *PLOS ONE* or those published by BioMed Central. In addition, Duke faculty have expressed early interest in new business models for open access, including the soon-to-be-launched journal *PeerJ*, which will replace article processing fees with low-priced lifetime memberships for scholars. In the movement to change the face of scholarly publishing, a Duke faculty member was also a leader in the 'Cost of Knowledge' boycott that was aimed at changing the pricing policies of the publishing giant Elsevier and at dissuading it (successfully) from trying to reverse the public access policy at the US National Institutes of Health. In all these ways, the Duke faculty has shown a willingness to experiment and adapt to new methods of disseminating research in a digital environment, and to lead the way in changing the way scholarly communications takes place.

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References and notes

1. An article about the initiative is available at:
    http://blogs.library.duke.edu/magazine/2009/04/preserving-digital-world/ (accessed 21 September 2012).

2. This position was described by Paolo Mangiafico in an interview for *The Chronicle of Higher Education* in December 2009, which is available at:
    http://chronicle.com/article/How-to-Prepare-Your-College/49455/ (accessed 2 August 2012).

3. http://osc.hul.harvard.edu/policies

4. Duke's innovation in this regard is acknowledged in the UNESCO document called *Policy Guidelines for the Development and Promotion of Open Access*, available at:
    http://unesdoc.unesco.org/images/0021/002158/215863e.pdf (see p. 67). The guide as a whole is a very useful line-by-line analysis of these types of open access policies (accessed 9 August 2012).

5. Among many studies, see Gargouri, Y *et al*, Self-Selected or Mandated, Open Access Increases Citation Impact for Higher Quality Research, *PLOS ONE*, 2010, 5(10); Zhang, Y, The Effect of Open Access on Citation Impact, *Libri,* 2006, 56; Davis, P, Open Access, Readership, Citations: A Randomized Controlled Trial of Scientific Journal Publishing, *The FASEB Journal* , 2011, 25(7).

6. The policy language and much of the FAQ that supported it can be found at:
    http://library.duke.edu/openaccess/duke-openaccess-policy.html

7. http://library.duke.edu/dukespace/

8. Information about the Elements software is available at
    http://www.symplectic.co.uk/product-tour.html . Duke was the first US institution to adopt this particular package as part of its research management planning.

9. This article by Paul Royster of the University of Nebraska, Lincoln describing their strategies for building an institutional repository confirms Duke's experience:
    http://works.bepress.com/paul_royster/87/ (accessed 21 September 2012).

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