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Discovering the Information Needs of Humanists When Planning an Institutional Repository

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Abstract

Through in-person interviews with humanities faculty members, this study examines what information needs are expressed by humanities scholars that an institutional repository (IR) can address. It also asks what concerns humanists have about IRs, and whether there is a repository model other than an institutional one that better suits how they work. Humanists make relatively low use of existing IRs, but this research indicates that an institutional repository can offer services to humanities faculty that are desired by them, especially the digitization, online storage, curation, and sharing of their research materials and publications. If presented in terms that make sense to humanities faculty, and designed consciously with their needs and concerns in mind, an IR can be of real benefit to their teaching, scholarship, collaborations, and publishing.

Introduction

Institutional repositories (IRs) are infrastructures through which universities and colleges seek to safeguard and share digital content created by faculty and staff. Most IRs contain articles, books, datasets, and related scholarly material; a minority also contain teaching and administrative records ([Primary Research Group](#), 2007, p. 24). IRs are increasingly common in academia: by September 2010, the [Directory of Open Access Repositories](#) (OpenDOAR) listed over 1,650 IRs worldwide.

IRs are predominantly planned and implemented by library and information technology directors and staff ([Association of Research Libraries](#), 2006, p. 14; [Baudoin & Branschosky](#), 2003; [Dill & Palmer](#), 2005; [Markey](#), 2007, p. 2). However, there have been few attempts to discover the information needs of faculty during this planning, and before IR hardware and software are installed: "Many librarians and administrators are convinced that repositories are important-so much so that most are, or will be, implementing repositories before they do a needs assessment" ([Markey](#), 2007, p. ix). This general lack of a needs analysis before launching a library service runs counter to normal library practice. Libraries routinely include faculty members as collaborators in other areas of service design, planning, and implementation, such as the development of new digital library services ([Seaman](#), 1997), the way in which bibliographic utilities are used ([Rader](#), 2001), or the integration of library holdings with electronic courseware systems ([Agingu & Cooper](#), 2001).

Despite the growing number of IRs worldwide, university and college faculty have been slow to submit content to them. A 2009 survey of 555 faculty at colleges and universities in the United States and Canada found that "only 9.7% ... have ever contributed a publication to their library's digital repository" ([Primary Research Group](#), 2009, p.17) although 56.7% of those surveyed were aware that their institution had instituted "a digital repository for faculty publications" ([Primary Research Group](#), 2009, p.17). [Schonfeld and Housewright](#) (2010) measure only a slightly higher percentage in a survey of 3,025 faculty members: "our

national sample found only 15% of faculty members have deposited into an institutional repository" (p. 28). Prior research suggests that one reason for the low incidence of content submission is a failure to evaluate the information needs and concerns of faculty when designing an IR service.

Problem Statement

Humanities scholars are an important part of an academic faculty, but their information needs are rarely if ever considered during the design phase of an institutional repository. This study fills that void by exploring the following questions:

- What information needs do humanities scholars express that IRs might address?
- What issues concerning ownership and re-use of their materials do they express when they consider using an IR?
- Is there a repository model other than an institutional one that better suits how they create, store, and share their teaching and research materials?

Failure to understand the information requirements of humanities content contributors early in the planning of an IR can result in services that are ill matched to their requirements, which in turn leads to under-populated repositories. To build a service based on an articulation of desires and in response to concerns-instead of one based on various assumptions of need-should create a more precise match between IRs and the needs of their intended contributors. This research will provide a better understanding of the information needs that humanists have that can be addressed by institutional repository services, and will aid in the future design and promotion of IRs.

Literature Review

Recent literature is beginning to pay attention to the importance of uncovering users' information preferences prior to IR implementation. [Maness, Miaskiewicz, & Sumner](#) (2008) "decided it was imperative that insight into users' goals and needs of an IR be gained before design of the repository began" (Introduction section, para. 1), and conducted 20 interviews with faculty at the University of Colorado, Boulder. At the University of Southern California, interviews were conducted to determine how faculty members publish and share research, and to gauge their receptiveness to an IR as an infrastructure for scholarly communications ([Holmes-Wong, Brown, & Tompson](#), 2006, slide 6). At Yale University, the Library investigated faculty needs while planning repository services to support "scholarly publishing, open access, and institutional branding" ([Green](#), 2005, p. 3).

Additional research has probed faculty information needs *after* an IR has been implemented. The University of Rochester, faced with an underused repository in 2003, sought to tailor its IR services to the information needs of their faculty members. The purpose of that study was:

... to explore the apparent misalignment between the benefits and services of an IR with the actual needs and desires of faculty [and] to understand the current work practices of faculty in different disciplines in order to see how an IR might naturally support existing ways of work. ([Foster & Gibbons](#), 2005, Institutional Repositories and the Adoption Problem section, para. 7)

Despite these examples to the contrary, there has been a surfeit of assumptions about faculty needs during IR planning, which has led to many IRs that are thinly populated with content (a persistent problem since their inception). In 2004, a survey of 45 repositories "found the average number of documents to be only 1,250 per repository, with a median of 290" ([Ware](#), 2004, p. 119); [Davis & Connelly](#) (2007), looking at the Cornell University IR, discovered that at that point "[m]any of its collections are empty, and most collections contain few items" (Abstract section, para. 3); and a 2007 census of 446 IRs in the United States found that "both pilot-test and operational IRs are very small. About 80% of the former and 50% of the latter contain fewer than 1,000 digital documents" ([Markey](#), 2007, p. 3). Humanists in particular have been infrequent IR contributors: "No survey interviewee viewed the English or other literature-oriented departments (classics, comparative literature, and theater) as being a heavy contributor to the digital repository ... and 38.46%

considered them modest contributors" ([Primary Research Group](#), 2007, p. 30).

[Markey](#) (2007) also found that statistically "there is no relationship between IR size and IR age" (p. 3), which indicates that the root cause of the under-population is something other than simply the newness of the service. Researchers have not been slow to offer remedies to this general unwillingness of faculty to deposit content into an IR. [Foster & Gibbons](#) (2005) suggested that confusing terminology contributes to the problem: "[faculty] did not perceive the relevance of almost any of the IR features as stated in the terms used by librarians, archivists, [and] computer programmers" (What Faculty Members Want section, para. 7). They also noted that the emphasis on the needs of the institution over the needs of the contributor may contribute to the problem (What Faculty Members Want section, para. 11), a point which is strengthened by more recent research: "most faculty members ... did not consider their research materials as 'institutional' property" (Rieh, St Jean, Yakel, Markey, and Kim, 2008, p. 176). [Kim](#) (2007) proposes that one should also uncover faculty members' perceptions of the costs (time to submit; copyright concerns) and benefits (professional recognition; altruism) of IRs "in order to better structure incentives and social mechanisms to foster contribution [to them]" (p. 3). In a frequently cited older study, [Wilson](#) (1981) advanced "a theory of the motivations for information seeking behavior" (p. 3). This theory stresses the importance of understanding an information seeker's social and professional setting in order to understand what real needs, motivations, and hindrances exist. Current efforts to populate IRs with faculty-generated data are hampered precisely by a tendency to focus on systems, software, and standards, rather than on what Wilson called in 1981 the "understanding of information users in the context of their work or social life" (p. 12).

Procedures

Research Design

This study took place from September 2008-April 2009 at Dartmouth College, a private four-year liberal arts institution in Hanover, New Hampshire, with a student body of approximately 4,100 undergraduate and 1,600 graduate students. Graduate programs are predominately in science, technology, and medicine. [1] Participants for this study were drawn from the 151 full-time individuals in Dartmouth's Division of Arts and Humanities. In order to select interviewees, a current list of faculty names and departments was drawn up from the [2008-2009 Dartmouth Faculty Handbook](#), and this list was sent to the librarians who are liaisons to the 14 departments in the Division of Arts and Humanities. These librarians helped identify faculty members who have expressed an opinion about the services that an IR can fulfill, such as data storage, long-term archiving, or open-access publishing, and whose current needs make them likely early adopters of a repository or whose concerns may make them early objectors to a College investment in such an infrastructure. The researcher then contacted those faculty members and conducted individual interviews with any who agreed to be part of the study and who were present on campus during September 2008-April 2009.

Twenty-seven faculty members were invited to take part in this study; 13 agreed to do so. The interviewees came from nine of the 14 departments; seven were female, six were male; and the pool contained both senior and junior faculty members. Those who chose not to take part mentioned a lack of interest or time, insufficient expertise (none was required), recovery from illness, or absence from campus; some did not respond.

Other IR evaluation studies that rely on in-person interviews have made similar decisions regarding the size of the pool, when the purpose is to indicate trends rather than to generalize findings to a population. As [Schneiderman](#) (2002) points out, in-person interviews "can probe deeper to understand frustrations or satisfactions" (p. 55) than is typically possible in a questionnaire, but they are time-consuming to conduct, record, analyze, and describe. At Cornell University, for example, [Davis & Connolly](#) (2007) interviewed 11 faculty members out of the entire faculty population; at the University of Rochester, [Foster & Gibbons](#) (2005) sampled 25 faculty members, but their work was supported by a grant-funded team (Studying Faculty Work Practices section, para. 4).

Methodology

The researcher sent an email message to the faculty members selected by the library liaisons to explain the project and to ask them to participate, sending a follow-up message if necessary. The researcher then conducted in-person interviews with those Arts and Humanities faculty members who agree to participate. Interviews began with a brief definition of an IR and its common functions (Table 1). This definition had also been sent to the interviewees beforehand because the term "institutional repository" has not been well understood by faculty: "less than half of faculty at research universities understood the meaning of this term" ([Primary Research Group](#), 2009, p. 19).

Table 1: Background Information For Interview Participants Regarding IRs	
Definition	<p>An institutional repository (IR) is the infrastructure through which colleges and universities seek to achieve "the more coordinated management and disclosure of digital assets [such as] learning objects, data sets, e-prints, theses, dissertations and so on."</p> <p>De Rosa, C., Dempsey, L., & Wilson, A. (2003). OCLC environmental scan: Pattern recognition. Dublin, OH: OCLC, p. 64.</p>
Functions	<p>Collecting: the gathering together of scholarly, pedagogical, and administrative output from across campus.</p> <p>Preserving: protecting the intellectual and administrative assets of an institution.</p> <p>Publishing: providing a place from which scholarly and teaching materials can be made globally available (even if they are commercially published elsewhere).</p> <p>Re-purposing: allowing the easy re-use (where appropriate) of teaching and research materials.</p> <p>Promoting: demonstrating the excellence of an institution through the availability of its scholarly and pedagogical outputs, and celebrating its altruism in sharing them widely.</p>

All participants were asked the same questions [see [Appendix](#)] and were assured anonymity in the final report to the Dartmouth Digital Information (D2I) Steering Committee [2] and in any subsequent publication of results. They were informed that their opinions could influence how the institution plans "a broad, long-range strategy for managing both the administrative records of the university and the academic output of departments and faculty" ([Dartmouth College & Duke University](#), 2006, p. 2).

Data Quality

A member of the faculty at Simmons College Graduate School of Library and Information Science commented upon a draft version of the materials to be sent to interviewees and also examined the IR definition and the interview questions for ambiguity or unexplained terminology. The IR definition and the interview questions were also shared with the library liaisons at Dartmouth College.

Findings

1. Information Management

1.1 Managing and distributing materials

Teaching

Interviewees expressed a greater satisfaction with their ability to manage and distribute their teaching materials than their research data and publications. Like many academic institutions, Dartmouth uses a course management system (Blackboard™) to organize and deliver curricular materials. Interviewees use Blackboard™ heavily as both a delivery system and as a long-term repository for pedagogical materials, although the College does not explicitly support the latter role. Ten of the 13 interviewees used Blackboard™ for delivering syllabi, grading, and for enabling course discussions; seven also used it as a content repository over time. Four had web sites that they also used for class materials, but one of the interviewees observed that there is currently no institutional infrastructure to archive class web sites. One interviewee expressed frustration that Blackboard™ content is inaccessible to a wider public than Dartmouth students, and another has abandoned Blackboard™ because of its perceived poor integration with external media assets.

Research

The faculty expressed a considerable need for an institutional infrastructure for faculty research materials. Eight interviewees stored research materials on their desktop and laptop machines, and they were clear that this situation was sub-optimal. Three interviewees discussed the challenges of dealing with very large files in this manner: music archives, CAD programs, and video. One interviewee with multi-terabyte media files had no institutional backup at all for this research material. Two thought that the institution's networked drives were too slow to be practical for research materials; one observed that a departmental server provided storage but — critically — no access for colleagues and students; one noted that there are few institutional resources to help with the archiving of research materials; and one was frustrated at the storage limit placed on a personal College web page account.

Four interviewees specifically wanted to access data in a networked repository; two of them observed that they are challenged to coordinate research and teaching material scattered across several machines.

One interviewee, who did not distribute scholarship in digital form, thought that digital research and scholarly materials have an odd standing in his/her field, and believed there is still a premium on print with digital content considered as something of an add-on. This interviewee believed that this attitude typifies how the College judges digital scholarship in tenure and promotion decisions.

1.2 Preferences

This section elicited the most discussion and the widest array of responses. The dominant need expressed was for services that create and manage digital materials in order to advance teaching and scholarship.

Digitization services

Eight interviewees expressed the need for materials to be digitized in order to include them in a repository. Humanities faculty members have scholarship and raw research materials in paper, slide, photo, tape, and film formats, and they want this material online with the ability to search across all material in the repository. One interviewee suggested that the scholarship, once digitized, could be used for a "Digital Dean's Shelf" as an online promotion of Dartmouth scholarship.

Data processing services

This was the next most prevalent need, with seven interviewees offering examples of data processing services that would further their use of an IR. Two of them wanted a "format conversion function" to convert old file formats to newer ones (e.g., WordPerfect to MS Word, CAD files into video, or Photoshop files to JPEG). One interviewee needed to create PDF or PowerPoint documents of classroom lecture materials and add them to Blackboard™; another needed repository tools to process large numbers of images; and a third wanted to cull video clips more easily for classroom use.

Storage services

Six faculty members needed better data storage solutions. Four required support for large datasets, including audio, video, and 3D models. These files are cumbersome to manage and share without an infrastructure designed to accommodate them. Two interviewees asked for storage for departmental records, and one also desired long-term preservation of course materials.

Open access/publishing services

Four interviewees needed help negotiating rights to use material, both for their own content (for which they had signed away rights to a publisher) and for content created and owned by others. They thought such support would be an important part of a successful repository infrastructure. Two interviewees wanted help with open access publishing: one wished that all his own material was openly accessible; another wanted to put a digital copy of a print book into the library upon publication, and believed an open access agreement like Harvard's might help with this process. [3] This interviewee has written a book with a colleague and needed additional material posted online. Currently there is no institutional infrastructure through which to assign a permanent identifier to such material. Another wanted training and tools for easier maintenance of websites that promote work to the alumni of the department, who are potential resources for students.

Annotation and collaboration services

Two interviewees would like a repository to allow users to interact with content, by adding comments and tags as they can on Facebook and Flickr. One also asked for collaboration tools for shared editing. Another wanted support for virtual teaching, working with colleagues and students at multiple sites, and would want any new campus infrastructure to make this much easier. A third saw the opportunity for IR-based tools to drive new interdisciplinary work, and to help students create new fields of study by deepening and easing their discovery of material and partners in other fields.

Only one interviewee did not require any IR-based services. This interviewee valued access to online archives and repositories of material, but liked the idea of creating and working with physical objects and observed that there is still a deep relationship to print in his/her discipline.

1.3 Interest in adding material to an IR

Eleven interviewees were interested in adding material to an IR. Two were unsure: one believed that his/her journal content was already all available electronically through publisher sites; the other had concerns about loss of ownership and appropriate credit (especially for teaching materials).

Where an interest was qualified or amplified, the interviewees wanted appropriate technical support, for the college to maintain faculty web sites over time, and for the digitization of paper-based material from research. Two interviewees specifically mentioned the desire for a faculty profile page on the web to showcase one's own scholarship or teaching.

1.4 Requirements for a campus-wide repository

The interviewees all emphasized the importance of trust in the IR as a secure and enduring institutional service. They favored material under the control of the owner, especially for material that is pre-publication or part of a collaborative process. Ease and speed of ingest were also important, as was version control and the ability to add metadata for different audiences.

1.5 Types of materials for submission

A wide array of teaching and research materials (Table 2) and data formats (Table 3) were specified.

Table 2: Materials That Interviewees Would Submit To An Institutional Repository	
<i>Material</i>	<i>Respondents</i>
Research material	11

Scholarship	9
Teaching materials	9
Nothing	1

Table 3: Formats That Interviewees Would Submit To An Institutional Repository

<i>Format</i>	<i>Respondents</i>
Text	12
Images	8
Syllabi	6
Video	5
Audio	3
Scholarly archives	3
CAD and 3D models	2
Student projects and theses	1

Four interviewees discussed syllabi, and expressed some hesitance to share them. Their reasons were that syllabi take a lot of work and there was concern that one would not get credit for that effort; there was also the concern that a student would use an outdated syllabus by mistake, as these documents change frequently (even during the term). One interviewee thought the ability to see a junior colleague's syllabi online was a benefit for mentoring and evaluation; another noted that Dartmouth's 10-week term may not make Dartmouth syllabi very useful to the many U.S. institutions that are organized around a 14 to 15-week semester.

Several interviewees mentioned the value of having their digital material available in a central repository from which it can be used in research and teaching. Two interviewees saw an IR as an aid to their current published work, allowing for open access versions to be disseminated.

2. Issues Concerning Ownership And Re-Use Of Their Materials

2.1 Concerns about the adoption of IRs for academic content

Five interviewees thought that the processes of reward and recognition in the humanities, especially when tenure and promotion decisions are made, did not value digital publishing. One interviewee noted that this is still an era of individual scholars generating printed books, and that this is how careers are judged. One interviewee also suspected that a repository could allow people to plagiarize more easily or to circumvent copyright. There was also interest in the long-term maintenance of public web sites over time so they do not age badly and reflect poorly on the individual or the institution.

Four interviewees expressed no concerns, as long as the repository was safe and capacious. They saw an IR as part of an evolutionary process away from print-only resources, as a good way to disseminate material, and as a necessary backup.

2.2 Access restrictions

All interviewees thought that some material in the repository should be open to all users. Many had examples of times when this would not be the case for a given item, or for an item in a pre-production state, but the general tenor of opinion was firmly towards global access. One interviewee expanded on this opinion,

suggesting that it was important to behave the way we wish other scholars, libraries, and museums to behave in granting the most open access legally possible. Another interviewee has been pleasantly surprised by the quality and passion of some of the online commentary on public services such as Flickr even when the interviewees are not trained academics.

One interviewee raised a question about ownership of lecture material: do faculty members own the material they create, especially for teaching, or could they find their material in the repository without their input?

2.3 Usage statistics for IR content

All interviewees saw the provision of usage statistics as being of interest, but opinions ranged from usage statistics having personal value merely to their being important to the institution to judge the impact of the service. One noted that impact metrics are becoming more prevalent in the humanities and this would be one such measure. Two interviewees cautioned against popularity being a useful indicator of quality for scholarship.

3) Repository Models Other Than Institutional Ones

3.1 Contributions to or use of a disciplinary repository

Ten interviewees did not know of a repository that is important in their discipline. On the other hand, one interviewee used a disciplinary repository centered on a scholarly society; a second used a music repository that is discipline-specific; and a third used Facebook (for personal use) and Flickr (for photo sharing and photo discovery) and saw such services as of value in academia.

3.2 The utility of a disciplinary repository as a way to publish and discover scholarship

One interviewee noted that a cross-institutional, discipline-based repository would be more desirable than an IR; two thought that it would not, and three had no opinion. Seven interviewees saw some value in disciplinary repositories *when combined with* institutional ones, with the local architecture designed so that it can support both an institutional expression of content and also deliver content to disciplinary repositories.

3.3 Level of importance that the Dartmouth repository is cross-searchable with other institutional repositories

All interviewees saw value in IR cross-searchability, with eight seeing it as very important, four as fairly important, and one as of low importance. Interdisciplinary work and new collaborations were most valued. Two respondents also thought that an IR could ease the transfer of their material to a disciplinary repository if one becomes important to them, or to another institution if they move.

4) Other Needs And Concerns

In their closing remarks, interviewees reiterated their need for digitization and conversion services, the easy ingest of materials, the importance of collaborative online work environments, faculty control over who accesses their material, and the long-term institutional commitment to an IR.

One interviewee was concerned that humanists may have a failure of imagination about these possibilities, and wondered when more collaborative modes of scholarship enabled by network technologies will enter the humanities. Another wondered how to get sufficient commitment from faculty to make an IR successful, and suggested that the College should pre-load an IR with a faculty member's scholarship, with his or her permission, as an incentive to participate.

Finally, two interviewees noted that Dartmouth College faculty members are very good at teaching and scholarship but sometimes poor at showcasing these skills, and that the institution could be a leader in the humanities in embracing IRs as a way to promote and share materials.

Discussion

Institutional repositories are of increasing importance to colleges and universities, although there is still a mismatch between the high expectations on the part of librarians and technologists for these infrastructures and the faculty's low willingness to contribute content to them. Prior research shows this lack of engagement with IRs to be especially true for humanities faculty members. The humanists in this study, however, expressed a relatively high level of interest in the opportunities that IRs afford them, especially if the services they need are a part of the IR design.

Most interviewees expressed a strong desire for services that the College should develop as part of the design of an IR infrastructure. Digitization services were most needed; for humanists, their research archives and scholarly publications are not necessarily available to them in digital form. This is especially true of scholarship from earlier in their careers, but not limited to this material: scholarly books still come out in the humanities without an accompanying eBook version, for example, and there has been to date no College infrastructure designed to take the computer file in which the faculty member creates the book and give it an online existence, including copyright clearance.

The interviewees also expressed a wide spectrum of other services that they felt could make participation in an IR more attractive. While there was relatively little interest in digital publishing through a campus infrastructure, there were clear needs for mass data storage, persistent identifiers, interlinked scholarly and pedagogical repositories, collaborative online work, community tagging, and user commentary. It is clear from this research that-if issues of trust, control, and professional recognition can be suitably addressed-an IR could address a number of significant information management and dissemination needs for humanists. All interviewees, for example, believed that some IR content should be accessible to all Internet users, but they also saw an IR as a desirable collaborative working space for certain types of documents where the audience would be a more limited circle of colleagues and students.

Most interviewees in this study manage aspects of their teaching at the network level, with the access and data security benefits that this brings. The Blackboard™ course management system functions variously as a long-term repository for teaching material and a set of services (grading, course discussion, and delivery of syllabi and selected content). The interviewees have no such robust institutional infrastructure for research materials and published scholarship, however, and are much more likely to manage these on a personal laptop or desktop, or on several such machines in multiple locations. They express a clear need for a central networked repository for research files that would be accessible to other systems and that could store large music, video, and CAD files as well as text and image collections.

[Chavez, et al.](#) (2007) have also noted the need for faculty services to be tightly coupled with the design of IRs. These authors promote the importance of both "high-level, or infrastructure, repository services that support sharing of data between repositories, ingesting of data into repositories, and harvesting of content from repositories" and "low-level, or content based, services such as natural language processing tools and analysis services that support users in their interaction with materials that are already within repositories" (Introduction section). Such service-based inducements to contribute to a repository were very important to the respondents in this study; however, services are rarely promoted when institutions introduce an IR to a faculty population: "Most IR staff members lacked an understanding of the range of services that might constitute a comprehensive service model for IRs" ([Rieh et al.](#), 2008, p. 183). The comments of the humanists in this research suggest that a focus on the high-level and low-level needs of IR contributors is fundamental to the adoption of these services.

The wide range of current IR-related needs expressed by these humanists was surprising, given the low use of IRs by humanists elsewhere and the infrequency with which these disciplines express other cyberinfrastructure needs. The lack of an infrastructure for research materials beyond personal hard drives and web pages is of real concern to most of the interviewees-too much of their existing digital material is vulnerable to loss. An IR that included services to ease the ingest, management, and sharing digital content could address those needs.

Almost all interviewees were ready to store, use, and share material from a campus IR, and all thought that some material in an IR should be free to all. This would lead one to assume that these humanities faculty members would agree with the value propositions of the [American Council of Learned Societies](#) (2006) when

describing networked infrastructures for the humanities and social sciences, which they assert should "be accessible as a public good; be sustainable; provide interoperability; facilitate collaboration; and support experimentation" (p. 3). However, "the public good" is not the first need an individual faculty member expresses in thinking about the personal and institutional investment that an IR involves. Librarians should be careful not to couch IRs initially in such abstract, if worthy, sentiments when trying to articulate their value to an individual contributor.

Issues of trust are central to IR adoption. There is the need to trust that the institution will support the repository over a long period of time and that the material placed in there is safe from catastrophic loss. There is also the issue of access control, which needs to be firmly in the hands of the contributors, with the ability to control who can access a given item, from local users only to all Internet users. The design, promotion, and ongoing support for any IR designed for humanists needs to engender trust to be successful.

Some faculty saw an IR as a way to showcase their work. At several points in the discussions, interviewees asked for a repository to be able to feed content to a faculty profile page, to promote their work, and help others find it. Researchers at the University of Rochester uncovered the same faculty expectation, which led to the introduction of "a personalized webpage that we will make available to any University of Rochester faculty member or staff author who puts work into our IR. The Researcher Page will serve as the showcase for all of the researcher's work" ([Foster & Gibbons](#), 2005, Enhancing the IR to Meet the Needs of Faculty Users section, para 3).

Finally, there are a cluster of concerns around reputation and reward. Several respondents do not trust others to give credit where it is due, and also think that the institution does not value digital work sufficiently in promotion decisions, which lessens their willingness to engage with IRs. This latter opinion finds support in the recent survey by [Schonfeld and Housewright](#) (2010): "In our survey, roughly one-third of faculty members strongly agree that tenure and promotion practices 'unnecessarily constrain' their publishing choices.... This belief is stronger among social scientists and humanists than among scientists" (p. 32). [4] Coupling institutional encouragement for open access publishing with institutional rewards such as promotion and tenure will be necessary for IRs to take root deeply in academia. If an institution asserts that it values open-access publishing, sharing of intellectual assets, and collaborative working practices, then those behaviors need to be recognized within the academic rewards structures.

Further Research

This inquiry could be broadened to include humanists from a range of educational institutions, and to examine differences in information-seeking behavior among the humanities, physical and medical sciences, and social sciences. The age and rank of the faculty member could be taken into account also, to see if the willingness to engage with IRs is affected by these variables. There is recent evidence to suggest that more senior faculty are more willing to contribute their materials to an IR: "Only 3.26% of lecturers or instructors have contributed an article to a digital repository, while 13.44% of full professors have done the same. This is true despite the lower levels of awareness of repositories at higher rungs in the academic totem pole" ([Primary Research Group](#), 2009, p.17). Further research opportunities also exist in examining the characteristics of early adopters of IR services, which could also uncover any changes in the services required after faculty had been using a repository for a period of time.

Conclusion

The topics of conversation generated in this set of interviews were broad and varied, covering both teaching and research, and including data creation, curation, and delivery needs over multiple media. The level of interest in IR services was surprisingly high, given the general lack of engagement that humanists have in IRs elsewhere.

If librarians think of IRs in terms of access, scholarly communication, and institutional promotion, then these interviews underscore the fact that faculty members think in terms of storage, services, and the marketing of self. Understanding this difference in focus is critical to the success of an IR. If the faculty do not see the IR

service described in language that makes sense to them, and if they do not believe that it is an infrastructure that addresses their needs, then their incentive to contribute content is severely diminished. Conversely, this research makes it clear that an IR can offer a range of services to humanities faculty that are desired by them, especially the digitization, online storage, and curation of their research materials. Such reliable networked storage is a real need, especially for those with large collections of digital images, audio, video, and architectural datasets. The existence and relative success of course management systems (which the faculty see as one type of repository) has made faculty even more aware of the lack of institutional infrastructures to support their research data, and an IR should be promoted as a solution to this problem.

These interviews also focus attention on the need for faculty rewards systems, including promotion and tenure decisions, to take much more account of the activities surrounding the digital archiving, publishing, and sharing of scholarship and research data. While it was not a majority opinion, there was concern that digital projects and publishing were not valued sufficiently in promotion decisions within the humanities. Until scholars feel that contributing materials to IRs and publishing from them will enhance their scholarly and pedagogical reputations rather than potentially damage them, the ability to promote an IR service will be seriously hampered. The institutional will to create institutional repositories must be coupled with the institutional will to reward their use.

Humanists can be willing participants in an academic institution's repository of scholarly and pedagogical assets if the designers of that IR infrastructure take the time to uncover and take into account their service needs and reputational concerns. If presented in terms that make sense to the faculty, and designed consciously with their needs in mind, an IR can be a digital creation, storage, and dissemination infrastructure that would have real benefit to the teaching and research work of humanities faculty.

Notes

1 Dartmouth College is classified by the [Carnegie Foundation for the Advancement of Teaching](#) (2008) as a "RU/VH: research university — very high research activity."

2 The D2I Committee is charged by the Provost to develop an institution-wide digital information strategy for Dartmouth College. Its work is part of an ongoing joint repository planning initiative undertaken by Duke University and Dartmouth College, and funded by the Andrew W. Mellon Foundation, focused "not on technological solutions, but rather on developing a clearer definition of the pieces that must be integrated into a plan ... in support of an institution-wide digital asset management/enterprise content management program" ([Dartmouth College & Duke University](#), 2006, p. 3).

3 Dartmouth College has an author's amendment to use in such cases, and since the date of this interview, Dartmouth has signed an [open access compact](#) with four other schools (Massachusetts Institute of Technology, University of California, Berkeley, Cornell University, and Harvard University).

4 [Harley, Acord, Earl-Novell, Lawrence, and King](#) (2010) show this attitude is also present in both history — "publishing in nascent online-only journals carries much less prestige than the flagship print journals" (p. xv) — and political science: "There appears to be no call within the field for open access journals, and although there are a few online-only journals, they lack the gravitas of their traditional print counterparts" (p. xvii).

References

[1] Agingu, B. O., & Cooper, C. M. (2001). Collaborating with faculty through technology: Faculty as users and partners. *Journal of Educational Media & Library Sciences*, 39(1), 1-7.

<http://www.fed.cuhk.edu.hk/en/jemls/200100390001/0001.htm>

[2] American Council of Learned Societies. (2006). *Our Cultural Commonwealth: The report of the American Council of Learned Societies commission on cyberinfrastructure for the humanities and social sciences*.

Retrieved September 10, 2010 from <http://www.acls.org/cyberinfrastructure/OurCulturalCommonwealth.pdf>

- [3] Association of Research Libraries. (2006). SPEC kit 292: *Institutional repositories*. Washington, DC: ARL. <http://www.arl.org/bm~doc/spec292web.pdf>
- [4] Baudoin, P., & Branschosky, M. (2003). Implementing an institutional repository: The DSpace experience at MIT. *Science & Technology Libraries*, 24(1/2), 31-45. <http://www.informaworld.com/smpp/content~db=all~content=a902791115~frm=titlelink>
- [5] Carnegie Foundation for the Advancement of Teaching. (2008). *Classifications*. Retrieved September 10, 2010, from <http://www.carnegiefoundation.org/classifications/>
- [6] Chavez, R., Crane, G., Sauer, A., Babeu, A., Packel, A., & Weaver, G. (2007). Services make the repository. *Journal of Digital Information*, 8(2). Retrieved September 10, 2010, from <http://journals.tdl.org/jodi/article/view/195/179>
- [7] Dartmouth College, & Duke University. (2006). *Digital asset management: Elements of an institutional program*. Unpublished final report to the Andrew W. Mellon Foundation on the Duke/Dartmouth Project.
- [8] Davis, P. M., & Connolly, M. J. L. (2007). Institutional repositories. Evaluating the reasons for non-use of Cornell University's installation of DSpace. *D-Lib Magazine*, 13(3/4). Retrieved September 10, 2010, from [doi:10.1045/march2007-davis](http://dx.doi.org/10.1045/march2007-davis).
- [9] De Rosa, C., Dempsey, L., & Wilson, A. (2003). *OCLC environmental scan: Pattern recognition*. Dublin, OH: OCLC Online Computer Library Center. Retrieved September 10, 2010, from <http://www.oclc.org/reports/escan/>
- [10] Dill, E., & Palmer, K. L. (2005). What's the big IDEa? Considerations for implementing an institutional repository. *Library Hi Tech News*, 22(6), 11-14. <http://www.emeraldinsight.com/journals.htm?issn=0741-9058&volume=22&issue=6&articleid=1513170&show=abstract>
- [11] *Directory of open access repositories* (2010, September). Retrieved September 10, 2010, from <http://www.openoar.org/index.html>
- [12] Foster, N. F., & Gibbons, S. (2005). Understanding faculty to improve content recruitment for institutional repositories. *D-Lib Magazine* 11(1). Retrieved September 10, 2010, from [doi:10.1045/january2005-foster](http://dx.doi.org/10.1045/january2005-foster)
- [13] Green, A. (2005). Review of digital repositories. Report to the Integrated Access Council, Yale University Library, New Haven, CT. Retrieved September 10, 2010 from http://www.library.yale.edu/iac/documents/DR_Review_final_27Sept05.pdf
- [14] Harley, D., Acord, S. K., Earl-Novell, S., Lawrence, S., & King, C. J. (2010) *Assessing the future landscape of scholarly communication: An exploration of faculty values and needs in seven disciplines*. Berkeley, CA: University of California, Berkeley, Center for Studies in Higher Education. Retrieved September 10, 2010 from http://escholarship.org/uc/cshe_fsc
- [15] Holmes-Wong, D., Brown, J., & Tompson, S. (2006, April). *Contextualizing the institutional repository within faculty research*. Paper presented at the Digital Library Federation Spring Forum, Austin, Texas. Retrieved September 10, 2010, from <http://www.diglib.org/forums/spring2006/presentations/wong.pdf>
- [16] Kim, J. (2007). Motivating and impeding factors affecting faculty contribution to institutional repositories. *Journal of Digital Information* 8(2). Retrieved September 10, 2010, from <http://journals.tdl.org/jodi/article/view/193/177>
- [17] Maness, J. M., Miaskiewicz, T., & Sumner, T. (2008, September/October). Using personas to understand the needs and goals of institutional repository users. *D-Lib Magazine* 14 (9/10). Retrieved September 10, 2010, from [doi:10.1045/september2008-maness](http://dx.doi.org/10.1045/september2008-maness)
- [18] Markey, K., Rieh, S. Y., St. Jean, B., Kim, J., & Yakel, E. (2007). *Census of institutional repositories in*

the United States MIRACLE Project research findings. CLIR publication, no. 140. Washington, DC: Council on Library and Information Resources. <http://www.clir.org/pubs/abstract/pub140abst.html>

[19] Primary Research Group. (2007). *The international survey of institutional digital repositories*. New York: Primary Research Group. http://www.primaryresearch.com/view_product.php?report_id=131

[20] Primary Research Group. (2009). *The survey of higher educational faculty: Use of digital repositories and views on open access*. New York: Primary Research Group. http://www.primaryresearch.com/view_product.php?report_id=167

[21] Rader, H. B. (2001). A new academic library model: Partnerships for learning and teaching. *College & Research Libraries News*, 62(4), 393-396.

[22] Rieh, S. Y., St Jean, B., Yakel, E., Markey, K. & Kim, J. (2008). Perceptions and experiences of staff in the planning and implementation of institutional repositories. *Library Trends*, 57(2), 168-190. Retrieved September 10, 2010, from http://muse.jhu.edu/login?uri=/journals/library_trends/v057/57.2.rieh.html

[23] Schneiderman, B. (2002). *Leonardo's laptop: Human needs and the new computing technologies*. Cambridge, MA: MIT Press.

[24] Schonfeld, R. C., & Housewright, R. (2010). *Faculty survey 2009: Key strategic insights for libraries, publishers, and societies*. New York: Ithaka. Retrieved September 10, 2010 from <http://www.ithaka.org/ithaka-s-r/research/faculty-surveys-2000-2009/Faculty%20Study%202009.pdf>

[25] Seaman, D. (1997). The user community as responsibility and resource: Building a sustainable digital library. *D-Lib Magazine* 3(7). Retrieved September 10, 2010, from [doi:10.1045/july97-seaman](http://dx.doi.org/10.1045/july97-seaman)

[26] Ware, M. (2004). Institutional repositories and scholarly publishing. *Learned Publishing*, 17(2), 119. <http://alpsp.publisher.ingentaconnect.com/content/alpsp/lp/2004/00000017/00000002/art00006>

[27] Wilson, T. D. (1981). On user studies and information need. *Journal of Documentation*, 37(1), 3-15. <http://www.emeraldinsight.com/journals.htm?issn=0022-0418&volume=37&issue=1&articleid=1649944&show=abstract>

Appendix: Questions Asked of Humanities Faculty

1) Information Management Issues

Q1.1 How do you currently manage and distribute your research and teaching materials?

Q1.2 What would you like to be able to do differently?

Q1.3 Are you interested in adding your material to an institutional repository?

Q1.4 What requirements would you have for a campus-wide repository before you would entrust your own information to it?

Q1.5 What types of materials would you submit?

2) Issues Concerning Ownership and Re-Use of Their Materials

Q2.1 What concerns do you have about the adoption of repositories of scholarship, reports, datasets, and other material?

Q2.2 Who would you like to have access to material you put in an institutional repository?

Q2.3 How important to you is regular reporting about the usage of your materials in the repository?

3) Interest in Repository Models Other Than Institutional Ones

Q3.1 Do you currently use an online repository of materials that is not an institutional one?

Q3.2 Would such a repository be more useful to you as a way to publish and discover scholarship than the institutional model?

Q3.3 How important will it be to you that the Dartmouth repository is networked and cross searchable with other institutional repositories?

4) Any Other Needs and Concerns?

An opportunity to raise issues not covered in the preceding questions.

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