Publishing solutions for contemporary scholars:
The library as innovator and partner

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Abstract

Purpose: To review the trend in academic libraries toward including scholarly communication, and by extension, electronic publishing, as part of their core mission, using the Cornell University Library as an example.

Design/methodology/approach: The paper describes several manifestations of publishing activity organized under the Library's Center for Innovative Publishing, including the arXiv (http://arxiv.org/), Project Euclid (http://projecteuclid.org), and DPubS (http://DPubS.org).

Findings: Libraries bring many competencies to the scholarly communications process, including expertise in digital initiatives, close connections with authors and readers, and a commitment to preservation. To add publishing to their responsibilities, they need to develop expertise in content acquisition, editorial management, contract negotiation, marketing, and subscription management.

Originality/value: Academic libraries are making formal and informal publishing a part of their core activity. A variety of models exist. The Cornell University Library has created a framework for supporting publishing called the Center for Innovative Publishing, and through it supports a successful open access repository (arXiv), a sustainable webhosting service for journals in math and statistics (Project Euclid) and a content management tool (DPubS) to enable other institutions (libraries, scholarly societies, presses) to engage in similar ventures to increase the dissemination of scholarship and to lower the barriers to its access.

Keywords: Academic libraries, Electronic publishing

Paper type: Case study

Introduction

What can an academic library contribute to scholarly publishing? The Cornell University Library has engaged in a number of activities in the publishing realm that aim at increasing affordable, effective, widespread, and durable access to research. The Library's Center for Innovative Publishing (CIP) operates the arXiv [1], an e-print service for physicists, computer scientists, mathematicians, and others; Project Euclid [2], a journal hosting service for over 40 titles in math and statistics; and is developing, with Pennsylvania State University, DPubS [3], an open source publications management software. The Library also runs an implementation of DSpace. Cornell's DCAPS, or Digital Consulting & Production Service, assists in the transition of print to electronic through its digitization, metadata production, and consulting service. Digital publications are preserved according to a well-developed policy for digital archiving, ensuring ongoing access to information across time.

The Cornell University Library's Center for Innovative Publishing is one manifestation of publishing activity undertaken by academic libraries as part of a movement to increase access to scholarship in an affordable manner and to ensure

the ongoing availability of scholarly information in a way that is consistent with the traditional library role of preserving the record of our civilization from generation to generation. CIP also seeks to apply innovative techniques in the management and delivery of information to scholars.

Publishing activity undertaken by libraries is today often viewed as innovative. Some individuals have even questioned whether publishing is an appropriate role for the library. Mission statements for libraries in the pre-digital age tended to focus on the librarian's role in working with the end products of scholarship. For example, this 1981 (reaffirmed 1993) mission statement is typical of many academic libraries of the recent past:

> The mission of the University of Delaware Library is to gather, organize, preserve, and provide access to the information resources necessary for the University of Delaware to achieve its educational, research, and service goals. (University of Delaware Library, 1993)

The function of publishing was not commonly included in the mission of libraries of the twentieth century. Yet in the nineteenth century, there were examples of close relationships between libraries and publishing. At Cornell, the first university librarian, D. Willard Fiske, appointed in 1868, also served, beginning in 1869, as the first director of the university press.

In the first decade of the twenty-first century libraries are reframing their mission to reflect changes in their environment and the expectations of their users. At the forefront of their strategic priorities it is common to find objectives relating to publishing and scholarly communications. One recent research library mission statement proclaims:

> The mission of the MIT libraries is to create and sustain an intuitive, trusted information environment that enables learning and the advancement of knowledge at MIT. We are committed to developing strategies and systems that promote discovery and facilitate worldwide scholarly communication. (MIT Libraries, 2003)

At the Association of Research Libraries, a North American organization with 123 member libraries, strategic planning undertaken in 2004 has resulted in three priorities: Scholarly Communication, Public Policies Affecting Research Libraries; and Research, Teaching, and Learning. In the last decade organizations such as SPARC have evolved to promote more cost-effective dissemination of scholarly work. SPARC, the Scholarly Publishing and Academic Resources Coalition, is supported by over 213 members, including a broad cross section of college and research libraries. And in another sign of how publishing is increasingly seen as the purview of librarians, a growing number of library directors oversee the university press at their institution. Recent examples of convergent administration of libraries and university presses include the Massachusetts Institute of Technology, New York University, Northwestern University, Penn State University, and Stanford University. Many more research libraries now are engaging in the dissemination of scholarly information, both formally and informally. University libraries are lending their digital expertise and information technology infrastructure to host online journals and dozens of North American academic libraries have created institutional repositories to collect and disseminate the research and courseware of their faculty. Brigham Young University's library publishes 12 online journals, for example, and the California Digital Library has made available online over 2000 books through its eScholarship Editions.

In February 2005 a survey of the membership of the Coalition for Networked Information found that about 40% of respondents had an operational institutional repository (IR), and that 88% were planning an IR or participation in a consortial IR (Lynch and Lippincott, 2005).

Early publishing activities and influences

At the Cornell University Library, the immediate antecedents for its contemporary publishing activities were an outgrowth of its exploration of emerging imaging technologies and a response to financial pressures created by the so-called "scholarly communications crisis." In the late 1980's, Cornell, in partnership with Xerox Corporation, established a pioneering digital imaging project, which scanned almost 600 out-of print monographs in mathematics. This republishing enterprise prefigured Google's mass digitization and has remained vital to this day, with continuous use of the collection. The Library provides print-on-demand for titles in the Cornell math books [4]. Ongoing reformatting of print collections into digital versions has continued, with an expanding list of titles numbering in the thousands. Among the largest of the Cornell digitization projects are the Core Historical Literature of Agriculture [5], HEARTH (Home Economics Archive: Research, Tradition, History) [6], and the Making of America [7]. Without realizing it, the Cornell University Library and others like it had become informal publishers of retrospective materials.

Simultaneously in the late 80's and early '90s librarians became more vocal about the rising prices of journals, and cast about for solutions to the so-called "serials crisis." By the 1990's several partnerships between librarians and publishers had emerged. The goals of these collaborations were to support publication by the academy for the academy and to turn the tide in the pricing situation. Often funded with start-up subsidies from foundations, these online services offered an alternative to profit-driven commercial journals or stated as their objective the intention of moderating price increases. Project Muse, begun at Johns Hopkins in 1993 as a collaborative endeavor of the university libraries and the Johns Hopkins University Press, and funded by the Andrew W. Mellon Foundation and the National Endowment for the Humanities, bundled many titles, primarily in the humanities and social sciences with the goal of bringing the full text of high quality scholarship online in a sustainable manner. Their initiative has helped over 300 journals, products of scholarly societies and other academic organizations, make the transition from print to electronic by sharing an infrastructure and common access. Another library-associated publishing model is offered by HighWire Press, a division of the Stanford University Libraries. Since 1995 HighWire has provided webhosting services for publishers and has sought to improve the environment for users of scholarly information by advocating open access for backfiles:

> HighWire was founded to ensure that its partners - scientific societies and responsible publishers - would remain strong and able to lead the transition toward use of new technologies for scientific communication. Concerned that scientific societies separately would lack the resources and expertise to lead a major technical infrastructure shift in publications, Stanford University, in founding HighWire, accepted the role of partner, agent of change, and advisor. Begun as a close collaboration of scientists, librarians and publishers, it has not strayed from that model in its six years of rapid growth. (HighWire, 2001)

Project Euclid

At Cornell, influenced by these precursors and encouraged by mathematicians on the faculty with a drive to convert the literature of their discipline to online form, the Library received a grant from The Andrew W. Mellon Foundation in 1999 to create a service to deliver journals in math and statistics electronically. The Mellon Foundation provided a second grant in 2003 for a total investment of $1,250,000. The grant funded Project Euclid, an online publishing platform for math and statistical journals. Project Euclid offered a mixed model of titles sold in a bundle, open access journals, and titles sold separately or available only through society membership. Its business plan called for sustainability based on distributing the costs of operating the journal hosting service between publishers and libraries. Fixed costs for managing Project Euclid in 2005 were approximately $300,000. In 2005 Euclid offered 40 journals and had 200 subscribers, including consortial purchases that made its titles available to every academic institution in India. Publishers selecting Project Euclid as their means of disseminating scholarly work include a mathematics department at a university, a small commercial firm, several scholarly societies, and a university press. Cornell has seen its principal market as small, independent journals, of which there are many in the field. Two of the top titles in mathematics appear in the list, which is international in character.

From the outset, Project Euclid sought to capitalize on the synergy created by bringing related titles together. Ability to search across the full text of those files and to follow links from MathReviews to Euclid texts or to trace a reference from an article in Euclid to a related publication is an essential aspect of Euclid's design. Project Euclid has received positive reviews and has won the Charleston Advisor's Reader's Choice award for best pricing for its reasonable and diverse models of pricing. As of the fourth quarter of 2005, Project Euclid is in the black, having achieved sustainability within three years of its public launch. In the process the Cornell University Library has learned a great deal about acting as a digital press. As a start-up, the Library needed to build confidence among publishers that it could function as a press. Although the Library's brand was strong in the information and digital innovation areas, it had little or no recognition as a press. Publishers and scholarly societies were skittish about trusting their journals with an unproven partner, especially since those journals contributed considerable to their reputations and their bottom line. There were significant aspects of publishing where the Library had scant experience, such as marketing or handling subscription requests. And in defining the scope of Euclid, Cornell introduced a complexity that made for a challenging business model.

In 1999, when Euclid was conceived, its models were Project Muse and HighWire. Open Access was not yet deeply rooted. The math environment proved highly diverse. In order to satisfy the varying needs of Project Euclid's first partners, the initiative needed to accommodate publishers who wanted their journal to be open only to members of their society, journals that would be hosted by Euclid but available only through the publisher, journals willing to be part of a bundle of federated titles that would be sold to subsidize the online service, and journals that wanted to be freely available to all. This made for a complicated pricing structure for publishers. Cornell sought to create the best value through an aggregation. The environment

that had drawn Cornell to pursue mathematics as a disciplinary focus also increased the cost of the effort. The motivations for Project Euclid are to increase access to scholarship, offer economies of scale, and to provide an alternative for publishers who might otherwise be enticed to sign on to a commercial contract that would be favorable for their publication, but costly for institutional subscribers. The mathematics journal market was large, with over 500 journals considered core by one of the most prominent indexing services, MathReviews. These 500 journals were published by hundreds of publishers, many offering one, two or three titles only. But the fragmented array of publishers meant the Project Euclid staff had to interact with many different publishers, often a time-consuming process. Furthermore, since some of these publishers operated on very tight margins and had little experience with online access, agreeing to participate in Euclid required a leap of faith along with a commitment to "do the right thing"--- make their publications available in an affordable manner.

Project Euclid operated under a subsidy from the Andrew W. Mellon Foundation since 1999, when it received development funds, through its launch in May 2004 until November 2005, when revenues began to exceed operating expenses. Its current business model balances fees paid by publishers with revenue from subscriptions. One of the startling insights of running a digital press service on a cost-recovery basis was that the library had a much deeper sympathy with publisher pricing models than it had had when it was only a consumer of publishers' products. It had to walk the line between pricing that the publishers could afford and licenses that would be library-friendly. The need to develop a successful business model underscored an area where the Library lacked substantial expertise, that of cost assessment and analysis. Since developing Euclid as an enterprise, the Library has added another master of business administration (MBA) to its staff, and several other staff members are enrolled in an executive MBA program. The Library also was unfamiliar with the process of acquiring new content, with producing print publications beyond a boutique scale, with marketing, and with managing subscription access or fulfillment. It has outsourced some of these functions, but as Euclid matures, it is increasingly bringing them in house, but hiring experienced staff to manage them.

Other publishing competencies the Library has had to develop and is still assimilating are the knowledge of editorial management procedures and the ability to negotiate contracts with journal owners. Libraries also have limited background in working with printers. However, the library is entering publishing at a time when many of its processes are undergoing significant change. Publications are transitioning to e-only; print on demand and short run printing, made possible through evolving technology, are altering traditional print practice. Amazon and Google, with services such as Book Surge, GooglePrint, and GoogleLibrary, are disruptive forces in the publishing environment. Consequently, both publishers and librarians need to develop new skills and apply them to the rapidly changing arena of scholarly communications.

Now three years since its public launch, Project Euclid is healthy and growing, with four journals poised to come online in spring 2006 and with backfiles being converted to expand its depth. It continues to build on its original strengths, including the Library's ability to execute complex digitization projects, create metadata, and

serve users 24/7/365. The Library is also contributing its expertise in digital preservation. We expect Project Euclid to expand both in numbers of titles offered and in the number of users. Still, scholarly journal publication is fluid, and we can expect changes in the coming decade. Two-thirds of Project Euclid's 36,000 articles are open access. Will small publishers be able to continue amidst the financial pressures that beset them? Will the American Mathematical Society, a prominent and respected mathematical society and publisher, offer a service that will unite hundreds of math journals under one umbrella without overshadowing the smaller, independent societies and departments making their titles available through Euclid? Sustainability is a moving target in publishing, and as the Cornell University Library becomes more heavily invested in this function, it is also exploring other, less traditional and less formal, approaches to publishing.

arXiv

Another publishing activity now housed in the Cornell University Library is the arXiv, the e-print archive originally established to support the online exchange of preprints in high energy physics. An example of an alternative mode of publishing, the arXiv was begun on a shoestring budget in 1991 by Paul Ginsparg, then a scientist at the Los Alamos National Laboratory. When Ginsparg joined Cornell as a member of its faculty in 2001, the Library made a strong pitch that this dynamic information resource should become part of its ongoing operations. The arXiv remains today the most successful open access repository in the world. Submissions have increased over 60% since 2001, averaged 4000 per month in 2005, and continue to rise. Use is intense. At Cornell we track about 300 million hits per year, and with several mirror sites around the world, this use is but a fraction of the total. The arXiv has introduced new functionality into the world of physics publishing, providing a low-cost, rapid means of disseminating scholarship that has transformed communication among the physics community. Expanding from high energy physics, the arXiv now takes in submissions in almost equal amounts in high energy physics, condensed matter physics, astrophysics, and mathematics. The e-prints coexist with formal publications. Although the working scientist relies on the arXiv for up-to-date, almost comprehensive access to research in physics and related disciplines, she continues to submit her work for review and publication in formal journals. Libraries continue to subscribe to these journals. Formal publication remains vital for reputation, promotion and tenure, and preservation purposes. The cost of the added functionality provided through the arXiv is slight, currently averaging about $4 per article. In contrast, a peer-reviewed, formally published article might range from $1500 to $2500. The Library received an initial three-year subvention from the university provost to fund the transition of the arXiv from federal support provided by the National Science Foundation and the U.S. Department of Energy to operations at Cornell, and since FY 2004/2005 the Cornell Library has reallocated approximately $200,000 annually from its budget to support the day to day operations of the arXiv. The Library provides the lion's share of support for daily operations, while development of new directions and research continues to come from grants and external subsidies. One of the key ways in which the Library expects to contribute its unique expertise to the established success of the arXiv is by ensuring its preservation. The Library is developing an

Open Archival Information System (OAIS) based on international standards and capable of ensuring long-term preservation of digital content.

The arXiv, like other publishing activities, is evolving. It is maturing into a service with a more polished interface and now has an advisory board and named moderators. Efforts are underway to facilitate the use of arXiv submissions by publishers, enabling them to have more efficient workflows. There are subdisciplines that are good candidates for coverage in the arXiv, so the scope of the database may expand. Within the Library, we hope to increase the synergy among the platforms and software used to support the various publishing initiatives overseen by the Center for Innovative Publishing. The relationship between the contributors to the arXiv and their publishers is quite strong, and it appears that for now, the value added by the traditional publisher, often their professional society, is strong enough that forgoing the final peer-reviewed version would be unthinkable for most authors. In 2005, however, ISI began indexing deposits in the arXiv and other open access resources in its Web Citation Index, with the possible consequence that the impact of informal publications can be measured alongside traditional formal peer-reviewed publications. One of the outcomes to watch for would be a willingness to rely on the informal peer review that characterizes the arXiv and to endorse a new means of assessment such as citation to works in the arXiv that might diminish the need to subscribe to journals which have major overlap with arXiv submissions.

DPubS

The third significant publishing initiative of the Cornell University Library is the creation of DPubS, an open source content management program. In 2004, as institutional repositories began to ascend in prominence in the U.S., there were observations that they would benefit from additional functionality. They served effectively as a means for scholars at an institution to deposit their intellectual efforts, and thus as a foundation for the preservation of those contributions by the library. However, institutional repositories have not substituted for traditional publications, and thus have not had a substantial impact on the journals pricing situation.

At Cornell, Robert Cooke, a faculty member, received a grant from the Atlantic Philanthropies that supported the Internet-First University Press. Through this initiative, the Library implemented DSpace. DSpace, a joint effort of the Massachusetts Institute of Technology and Hewlett Packard, is open source software to support digital repositories. The DSpace site lists almost 150 installations worldwide, and many more libraries and other organizations have experimented with the easily downloaded software. To increase the access capability of DSpace, Cornell plans to combine it with an enhanced version of the content management software it is using to support Project Euclid. It was a logical step to add functionality to DSpace and to join the burgeoning open source movement. Cornell named the generalized version of the software DPubS to distinguish the tool from its application in Project Euclid. In addition, the Library also decided to program interoperability with Fedora, an open source software that provides an architecture for managing and delivering digital content. Developed in collaboration by the University of Virginia Library and Cornell University's Digital Library research Group in Information Science, Fedora is being used by a growing community of institutions supporting scholarly

research. The Library anticipates that the ready availability of the DPubS content management tool will enable more institutions to undertake both informal publication through IR's and more formal publication, such as the type supported in Project Euclid.

At the same time the Cornell University Library was expanding its use of DPubS locally, the Pennsylvania State Libraries and the Penn State Press were beginning a collaboration in the Office of Scholarly Publishing. They intended to acquire content management software to support journals, conference proceedings, and other documents and to begin their concentration with support for history, particularly the history of Pennsylvania and the Northeast; Romance studies, and nutrition. Their search for software had not turned up a product that met all their requirements. One important criterion was the ability to be able to access the code directly for local modification, and many of the options available to them were proprietary. Penn State's dean of libraries offered to work with Cornell to develop a version of Euclid that could be imported by Penn State. Out of this emerged a joint proposal to the Andrew W. Mellon Foundation to generalize and extend the journal management software underlying Project Euclid. The partners proposed to extend the formats supported, add editorial management capability, and to make the product open source. One of their goals was to create a flexible tool that would increase the sustainability of the Penn State Press by enabling it to support a variety of economical but revenue-generating online publications. Another goal was to increase the dissemination and access to scholarship that had limited commercial value but that was important for the advancement of knowledge. Conference proceedings often fell into this category. Thirdly, both institutions saw the DPubS software as the means of offering an alternative venue for the publication of academic works that were being submitted for publication in journals managed by for-profit entities. As the literature has documented, some commercial publishers and even some societies promote journals and other works that cost significantly more per page than some other well-respected titles (Bergstrom and Bergstrom, 2005). Although these studies have been controversial, many librarians have concluded the alternatives to the present model would be beneficial to the budgets of libraries and universities. They reasoned that open access publications or low cost titles would be feasible if the cycle of knowledge creation and dissemination were contained within the academy and its close collaborators, such as scholarly presses and societies (Suber, 2003).

Conclusion

The first decade of the 21st century is rife with debate about the merits of open access and the prognosis for the continuation of traditional journals. Within Cornell University itself there is no single position with regard to the future. A library task force on open access produced a report in 2005 that calculated that a complete transition to an author-pays model would result in a research-intensive institution such as Cornell paying more than its current allocation for subscriptions (Davis *et.al.*, 2004). Critics of the report have noted that the amount used as the basis for its estimate, that of a cost of $2500 per article, lies on the high end of article costs, and that a figure of $1500 is more appropriate (Suber, 2005). Further, they have suggested that the task force did not include savings from costs currently borne outside the library, such as page

charges, that would mitigate the total cost to the university. Finally, they raise the issue of cost-benefit. The advantage to the scientists and scholars of having their work freely accessible throughout the world, with the consequence of accelerated transmission of ideas, creation of new knowledge, and enhanced influence and reputation for authors is worth the investment, even if an open access model should prove more expensive for a large research institution such as Cornell.

Bound up in this debate are a host of other concerns that color the discussion around open access. Many faculty confuse open access with unmoderated lists, and think that open access journals are not peer-reviewed or are lesser quality. Recent studies of the impact factor of open access journals and increased publicity about the value of open access are beginning to penetrate faculty circles, but in general there is not a solid understanding of the issues. In addition, the role of journals in the financial sustainability of scholarly societies creates a conflict in members who, while sympathetic to the idea of broader dissemination of scholarship and open access, see other programs of their society, such as training of entering scholars, conferences, and even the existence of their organization itself, threatened by the loss of the cross subsidy that their publications operations provide. The disconnection between the producers of scholarly literature and the intermediaries who purchase it for consumption by others has generated a dysfunctional economic relationship.

At the same time, emerging technologies have created another destabilizing or challenging environment for publishers. To meet the demand for online access and to take advantage of new information technologies that provide laborsaving, time saving, and intellectual enhancements, publishers have invested heavily in building repositories and interfaces and in converting backfiles. They have grappled with new business models that take into account the loss of print subscriptions to e-only access. They have replaced subscriptions with database contracts. Publishers who were accustomed to interacting with intermediaries, vendors who had relationships with another set of intermediaries, librarians, are now finding themselves marketing directly to libraries or even to consumers, resulting in a considerably different service environment.

In recognition of the reality of this situation and the time that will be needed to deconstruct it and to create a new, healthier system of academic exchange, DPubS is a tool that supports a variety of business models of scholarly communication. One of its key assets is its access control mechanism. A scholarly society can employ DPubS to offer a complimentary subscription to its journal for members and fee-based access for non-members. An organization can subsidize the dissemination of research in a discipline, resulting in an open access publication. The Cornell University Library and the Institute for Advanced Study at Princeton University are collaborating in making the *Annals of Mathematics*, the world's top impact journal in mathematics, freely available through Project Euclid. University presses can shore up their financial foundations through the successfully proven method of selling journal subscriptions, but still price their products at a lower cost than large for-profit entities.   The hope is, with the technical infrastructure provided by library collaborators and the flexible tool available in DPubS, that university presses will be a positive alternative publisher of scholarly journals. Institutional repositories, a growing trend in higher education, both to collect and preserve the intellectual output and

diverse learning objects of universities and to increase access to and flexible use of scholarly materials, can also use DPubS to advantage. Federated institutional repositories can create overlay journals or disciplinary groupings using the DPubS software. One can imagine distributed but interconnected centers of excellence that link scholarship in various subject domains: labor history, nanofabrication, Islamic studies, philosophy, and others. Depending on the financial model chosen to support the dissemination and exchange of scholarly information, organizations can control access using DPubS.

The Cornell University Library has designated as two of its top priorities increasing the understanding of the Cornell community of issues in scholarly communications and promoting e-publishing solutions that benefit higher education. In practical terms, this means reaching out to faculty and graduate students through an educational campaign that urges authors to "Know your publisher," "Manage your copyright," and "Store your stuff." Behind these exhortations are details of the relative costs of journals and their impact factors, information about copyright and fair use, and background about preservation in an increasingly digital world. The Library offers, through its Digital Consulting and Production Service [8], a one-stop shopping service with connections to digital imaging experts, metadata services, copyright clearance and advice, archiving, and publishing. Informed faculty partners and a well-designed enabling infrastructure are prerequisites to successful library publishing endeavors.

As the scholarly enterprise becomes more complex, librarians are finding their expertise is frequently called upon earlier in the process of research and teaching. In the past, some academics viewed libraries as fairly passive organizations entrusted with the stewardship of books and journals consulted by faculty in their research and students in their learning. An evolving model is more collaborative and interactive. Researchers work in cross-disciplinary teams, and students engage in collaborative learning experiences. Librarians are contributing their knowledge of information management, organization, and sources more actively to the educational endeavor, and they are more likely to become a member of a faculty production team that is creating a dynamic learning object. With their experience in the digital domain and their familiarity with a broad spectrum of the end products of research, scholarly publications, they are well placed to facilitate innovative models of scholarly communication. By engaging in publishing and collaborating with authors, scholarly societies, computer scientists, and other stakeholders to create a 21st century process for communicating and using scholarly research, librarians are pursuing important goals: the reduction of the costs to the academy and society of sharing scholarly information and the lowering of the barriers to access to the knowledge created within the university.

The Cornell University Library's exploration of a variety of publishing ventures has matured into a service organization known as the Center for Innovative Publishing. This enterprise embraces a self-supporting and growing online service for the federation of journals in mathematics and statistics known as Project Euclid; a subsidized open access disciplinary repository of world-wide renown in the physics, math, and computer science communities, the arXiv; an institutional repository, DSpace; flexible open source content management software, DPubS, that will launch

publicly in summer 2006; and a service bureau for publishing content in all disciplines and in a variety of formats. With the coalescence of the Center for Innovative Publishing into a single unit, the Library has moved from a collection of grant-funded or cost-recovery projects into a solid program that will be integrated into its financial base and that will support the core mission of libraries, creating and sustaining a trusted information environment and developing strategies and systems that promote discovery and facilitate worldwide scholarly communication.

Notes

1. http://arXiv.org
2. http://projecteuclid.org
3. http://DPubS.org
4. http://historical.library.cornell.edu/math/
5. http://chla.library.cornell.edu/
6. http://hearth.library.cornell.edu/
7. http://cdl.library.cornell.edu/moa/
8. http://dcaps.library.cornell.edu/

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