

JSTOR — An Update on Content

by
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Abstract

This article explains the role of JSTOR, which has selected and electronically converted 100 of the earliest and most important scholarly literature in the humanities and social sciences. Its database now contains over 2 million pages and continues to expand. Old files are digitized from the first issue published. Database usage by both publishers and college/university staff and students is growing rapidly, and increases in production capacity are ongoing. JSTOR plans to offer access to the relevant fields which libraries prefer rather than encompass a whole cross-disciplinary group. To ensure useful and well-rounded titles, experts in the field are consulted to rank the most important files. Response to JSTOR's accomplishments to date has been overwhelmingly enthusiastic.

JSTOR is a not for profit organization developing a unique research database of 100 of the most important scholarly journals published in the humanities and social sciences. With thousands of users at academic libraries across this country and Canada, JSTOR has experienced exponential growth in its short existence. We are now expanding our efforts to include journals in the sciences, and to offer the collection beyond U.S. institutions of higher education. JSTOR has had to break new ground in the areas of licensing, business approaches, and technology. As an organization creating new methods we receive inquiries concerning every aspect of the project, from pricing issues and legal constructs, to the nature of email that we receive from users. I am often asked to field questions concerning our approach to developing content, how we decide to include titles in the JSTOR database, and how our efforts in this area are succeeding. The following provides a summary of the content side of JSTOR.

Background

JSTOR (i.e. JOURNAL STORAGE), was initially a project of The Andrew W. Mellon foundation designed to test the feasibility of electronic storage of journal back files and their delivery to users over the World Wide Web. JSTOR is now an independent not-for-profit organization dedicated to helping the scholarly community take advantage of advances in information technologies. The JSTOR database of scholarly journals currently contains more than two million pages from 46 research journals in 11 fields, and it is growing. JSTOR's focus is on journal back files; every journal included in the database is digitized from the first issue published. In order not to put publishers' main source

of revenue at risk, current issues are not included; there is a 3 to 5 year delay between the most current issues of each title and the issues that appear in the database. In the case of some titles this means over 100 years of material is available for full-text searching through JSTOR. (A full list of journals now available in the database may be found at <http://www.jstor.org/about/content.html>). Users can conduct full word/phrase searching or can search by author, title or keyword. Articles are delivered to the user in the form of page images, and can be printed from standard printers at up to 600 dots-per-inch resolution.

JSTOR's approach to licensing is a "site license." All faculty, staff, and students at a college or university may access the database from their desktops, as can walk-ins to the library. The database was first offered to academic libraries on January 1, 1997, and over 250 libraries in the U.S. and Canada are now participating. (A list of participating libraries is available at http://www.jstor.org/about/participants_na.html.) Use of the database is high and is growing at a remarkable pace. Between September and November 1997 usage increased 340 percent. February 1998 saw our heaviest usage to date, with 28,000 articles printed and nearly 90,000 searches performed – roughly 3,000 per day. Total JSTOR activity in February exceeded the previous monthly high by 29 percent.

Higher education institutions in the United Kingdom now have the opportunity to participate in JSTOR through an arrangement with the Joint Information Systems Committee, an agency representing the four regional higher education funding councils of the U.K. government. A mirror site of the database has been established at the University of Manchester, and access is provided over the government-funded high-speed network known as JANET. This exciting development is likely to be followed by mirror sites in other locations around the world.

JSTOR Phase I

Once it was determined that the hypothesis behind JSTOR held promise and that academic journal content could successfully be delivered to users over the Internet, our next step was to develop an economic model that would enable JSTOR to survive on its own. The Mellon Foundation was not going to subsidize the project indefinitely. We needed to define a "product" that libraries could evaluate and that would represent good value, with the goal that JSTOR participation would save libraries money in the long run. We settled on a plan to include 100 titles, and called this set JSTOR Phase I. Our target for completion of Phase I is the end of 1999, and progress is ahead of schedule. We have signed agreements with 45 publishers for 75 journals in 13 different fields. (The list of these titles is available at <http://www.jstor.org/about/field.list.html>) These include 11 titles in the field of history, 11 in economics, and 8 in mathematics, political science, and population studies. Some of the most recently signed titles include *Review of Economic Studies*, *International Organization*, and *Philosophical Quarterly*. We will continue to fill out the list of titles in Phase I, further developing our list of journals in literature, philosophy, and Asian studies.

Decisions about the titles to include in Phase I have been difficult. When JSTOR began, the idea of digitizing 100 journals seemed like a huge undertaking. However, limiting ourselves to choosing 100 titles distributed over a dozen different fields has proved equally challenging. JSTOR's initial test phase consisted of 5 titles in history and 5 in economics. To grow beyond those ten we undertook a study of the important journal titles in core academic fields. A series of factors was examined and considered in our decisions. These factors included the length of a journal's run, which is important for those libraries that will utilize JSTOR to help save shelf space, the number of institutional subscribers to the title in the U.S., citation impact factor data, and finally, rankings from experts in the field. This last factor proved to be crucial in making sure that we ended up with a well-rounded and useful set of titles in each field. In some fields, we invited a small committee to rank the most important titles. Philosophy is an example of this approach, where we were ably served by a group of 5 scholars who helped us to assess the literature of the field and rank the important journals.

Benefits for Publishers

In pursuing its mission JSTOR takes a system wide perspective. We are dedicated to help all participants in the scholarly communication process learn and benefit from this project. For publishers such benefits include help with a transition into electronic publishing. JSTOR foots the entire

cost of converting the journals, including finding a complete run and shipping it to our offices, checking the materials for missing and torn pages, scanning every published page, keying in new indexes for citation data, and seeing the title up and available for searching. Once the back files are available in the JSTOR database, publishers can utilize them as a platform upon which to build new electronic projects. Due to the difficulty of finding and retrieving articles in paper or microfilm formats, much of the material in JSTOR is presently little used, and is generating little revenue for publishers. By increasing their accessibility, the oldest volumes of the journals are brought back to life. As usage patterns become established, publishers can learn whether there are special articles hidden in the back files that are of particular importance to researchers. In addition, individual access is possible, allowing publishers to provide a new service to members and subscribers. For those publishers planning e-current issues, we will work to link the back files to the current issues to allow seamless searching of the whole run.

More Production Capacity

"Keep up the good work. I am amazed at how quickly the investment in JSTOR has paid off. Our faculty loves it. Their only request is (you guessed it) ... More, bigger, faster!" –Susan Harris, Dean, Salazar Library, Sonoma State University

One of the most asked questions from JSTOR users is why we can't move faster. Every scholar would like to see his/her own favorite journal added to the database! We currently run 100,000 pages a month through our production process. By the end of 1998 we expect to be digitizing 300,000 pages a month. We are adding production space contiguous with our present office in Ann Arbor, Michigan and are opening a new production space in Princeton, New Jersey. As we near completion of Phase I, we are beginning to plan for Phase II, and with these increases in production capacity we will strive to meet the needs of scholars not only in the fields already represented in the database, but in new fields of study as well.

JSTOR Phase II

As we look ahead to Phase II, we are beginning to ask questions about which fields to include in what order, and how to decide which journals to include in those fields. Much remains unknown, but we are certain of a few things. For starters, we will not ask libraries to acquire access to 100 titles in a variety of disciplines as we did with Phase I. We have learned from talking to librarians that being able to obtain journals in the fields that are most relevant for a given college or university would be preferable to having to license a whole cross-disciplinary group. Therefore, we will approach Phase II with a cluster concept, offering libraries access to those fields they would most like to have. We will invite input from libraries as we try to make decisions about which fields to do

sooner rather than later. Early thoughts include an expanded offering in ecology, an interdisciplinary sciences cluster, and a cluster around the fields of business/management/finance.

Our criteria for deciding which titles to include within the Phase II clusters will evolve from those used in making decisions about Phase I. Furthermore, we will not limit ourselves to 10 or 12 titles per field. As with Phase I, we will rely on experts in each field to provide guidance, ensuring that sufficient depth and breadth is present in Phase II to enable meaningful research in the database.

Conclusion

Building the JSTOR database continues apace. We will continue to add content as long as the demand from scholars, librarians, and publishers supports that effort. As the entity that has undertaken the electronic conversion of some of the earliest and most important scholarly journal literature, we are committed to archiving and preserving it for use by future generations of scholars. This is a serious responsibility, as is the challenge of meeting the high expectations for JSTOR that are emerging in the scholarly community. If the e-mail that we receive from scholars and students is any indication (following are a few examples), the JSTOR database is proving to be a valued and important resource. We are pleased to report our progress and the accomplishments of our first full year, but there is a lot of work to be done!

"JSTOR is fantastic! I'm a senior in biology at Rice University, and the three ecology journals you provide are making my life much more pleasant this semester. It's wonderful to see an electronic service that provides complete coverage of periodicals, not to mention going back more than a couple of years like the CD-ROM SCIs and such do." –Jennifer Drumond, Student, Rice University

"I just had the chance to logon to www.jstor.org and found it to be a dream site for research. We are all in your organization's debt." –Brian Uzzi, Professor, Kellogg Graduate School of Management, Northwestern University

"I just wanted to say that you have a wonderful service. And you are updating your sociological section so fast. Your service is invaluable. I am so amazed that I am lost for words. All I can say is thank you and please keep this service available. I'm a graduate student at the University of Texas at Arlington and find this just totally amazing. Thanks again." –La Dorna Goff, Student, University of Texas at Arlington

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