Project Euclid – A New Model in Scholarly Communication

Cornell University Library and Duke University Press announce Project Euclid, an initiative to advance effective and affordable scholarly communication in theoretical and applied mathematics and statistics.

Project Description

Project Euclid aims to help independent journals of mathematics and statistics by setting up an **infrastructure** that will empower the participating journals to publish on the Web and to increase their visibility through a **combined online presence**. The Euclid site represents a new model of scholarly communication as it will support the entire span of scholarly publishing from preprints to the distribution of published journals. It will also provide journal editors with a toolkit with which they can streamline their editorial and peer review processes and publish their issues in a timely and cost-effective manner.

The Euclid **repository** will be implemented in an Oracle database, and the system will have a Web-based user interface. Data modeling and data architecture for the Euclid database will be designed in consultation with metadata specialists at Cornell and after consideration of proposed discipline-related standards and conventions. The precise front-end mechanism and logic will be determined in the first year of the project. The system, both database and front end, will allow for easy implementation of the Open Archives software, meeting the requirements of the Santa Fe Convention and making Project Euclid interoperable as part of the Open Archives Initiative.

The **functionality** of the site will span the scholarly communication process: pre-publication, editing and peer reviewing, and journal publishing. The system will have the following three main modules.

Module 1: Preprint server to facilitate the fast dissemination of research. Authors will be able to upload their papers to the repository and, if they choose, easily submit their papers directly to aparticipating journal for peer review. Those who choose not to submit preprints to the archive can submit papers to participating journals, or they may submit preprints but send them to nonparticipating journals. Authors will have the ability to remove their

preprints if they wish. Editors will be able to either remove the preprint version of papers published in their journals or link the preprints to the final published article.

Module 2: An editorial toolkit with password-protected areas that streamline the peer review and editorial process for editors and reviewers. Editors can pick and choose different tools to meet their particular needs. They can maintain a database of their reviewers, post papers to a reviewer's password-protected pick-up and drop-off space, and easily alert reviewers via e-mail regarding review deadlines. Reviewers can submit their comments and/or the edited papers confidentially. Editors can link the revised version of a paper to its preprint version if applicable. Editors can also upload the final versions of papers and journal issues to the third module of the system.

Module 3: Journal publishing to facilitate an independent journal's transition to the online environment. Having prepared the content, editors will upload to the Euclid site the articles that make up a journal issue. Journal publishers and authors will benefit from the exposure gained through a large aggregated site, and their users will benefit from advanced user features that many individual publishers would be unable to provide on their own. Such features include browsing journal by journal, flexible keyword and full-text searching (journal by journal, any combination of journals, all journals, or the whole Euclid site, including e-prints), and e-mail current awareness services (set up an individual profile in the e-print module and sign up to receive tables of contents of journals of interest in Module 3.) Individual journals will each have distinct "front doors" into the system, which they can publicize to their subscribers. Journal editors may choose to allow open access to the full text of articles or to limit that access to journal subscribers only. The URL's for the individual journals can be set up so that they reflect the institution where the journal originates, and not the Euclid site.

Basing all three modules on the same repository will make it easy to offer servies in a seamless manner across the modules.

Long-term retention of data is an important aspect of the project. Although initially Project Euclid will retain files in the formats in which they were contributed, ongoing research will be applied to the broader challenge of how best to preserve digital math content. Project Euclid will be an active participant in the discipline's efforts to identify and accept a single standard for archival file formats and migration. We will closely monitor developments in MathML and conversion methods between TeX and the archivally more sound MathML. We will work with JSTO to facilitate conversion to its moving wall if particular journals and JSTOR are mutually interested in such an arrangement. The content of journals not participating with JSTOR may be retained in Euclid. We will exercise responsible stewardship of the files through sound file maintenance procedures and backup.

For more info or to try our demo system, log on to:
http://euclid.library.cornell.edu/project or contact Zsuzsa Koltay at zk10@cornell.edu