

Presentation Proposal

*Joint Conference on Digital Libraries: Workshop on Disciplinary Repositories*

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### **Building Virtual Communities around Subject Repositories**

The University of Massachusetts Amherst has served as a testbed for virtual communities in subject repositories through its development of InterNano<sup>1</sup> and ESENCE (Ethics in Science and Engineering National Clearinghouse) beta<sup>2</sup>, two National Science Foundation (NSF) funded subject repositories that serve science and engineering disciplines.

Both projects serve as virtual communities for emerging disciplines of practice (where an established online presence has been absent), by integrating social networking components with existing repository platforms, enhancing the standard model of a subject repository or subject-based digital library.

InterNano and ESENCE take two different technological approaches to building virtual communities due to project timelines, budgets, and staffing resources. ESENCE takes a low-investment, hosted approach, while InterNano takes a highly customized, integrated systems approach. For ESENCE, the repository is the primary platform onto which social components were integrated; InterNano incorporates the repository into a larger, content management platform as one of many domain resources.

The challenges of building virtual communities around subject repositories include software limitations, particularly for commercial platforms; the generation of community awareness, trust, and participation in subject repository-based virtual communities for emerging disciplines; and the “moving target” problem of identifying valued content in highly dynamic fields.

This talk will present the two different technical implementations of virtual communities on subject repositories as demonstrated by ESENCE and InterNano, and the challenges of each.

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<sup>1</sup>InterNano is an information portal and digital repository for the nanomanufacturing community. It is a service of the National Nanomanufacturing Network supported through the NSF funded Center for Hierarchical Manufacturing, which is entering its second five-year cycle of funding. For more information, visit: <http://www.internano.org>

<sup>2</sup>ESENCE was one of two beta projects that were designed and developed with support from NSF to advance national capacity for online ethics in science and engineering. ESENCE is no longer active. For more information, please visit: <http://www.umass.edu/sts/digitallibrary/>