# CHRISTINA M. FINNERAN

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## EDUCATION

**Syracuse University,** School of Information Studies, Syracuse NY
Doctor of Philosophy, Information Science & Technology, expected May 2009
Dissertation: *Factors that Influence Users to Keep and/or Leave Information Items: A Case Study of College Students' Personal Information Management*

**Syracuse University,** School of Information Studies, Syracuse NY
Beta Phi Mu
Master of Science, Library & Information Science, August 2004

**State University of New York at Buffalo,** Buffalo NY
Master of Arts, Geography: Geographic Information Systems (GIS), September 1996
Thesis: *A Needs Assessment Software Tool: Assisting Municipalities with Designing Successful Geographic Information Systems.*

**Cornell University,** College of Agriculture & Life Sciences, Ithaca NY
Bachelor of Science, Natural Resources, May 1992

## GRANTS & HONORS

**Thomson ISI Doctoral Dissertation Proposal Scholarship** 2008

**Hewlett Packard Higher Education Technology for Teaching Grant** ($70,000) 2007-9
*Round Table: Problem-Based Learning with Tablets to Engage Heterogeneous Learners in Computer Science 101*
Co-wrote proposal with Computer Science faculty member, Dr. Adriana Palacio. Lead on evaluation component.

**National Institute for Technology in Liberal Education (NITLE) Grant** ($33,500) 2006-8
*Supporting Campus-wide GIS at Liberal Arts Institutions: A Study of Common and Most Effective Models*
Co-PI with Bowdoin College Science Librarian, Sue O'Dell.

**Doctoral Consortium of the Joint Conference on Digital Libraries (JCDL)** June 2005
Selected to participate in inaugural doctoral consortium at 2005 JCDL conference.

**National Science Foundation's National Science Digital Library (NSDL) Program Grant** ($375,000) 2002-4
*MetaTest: Evaluating the Quality and Utility of Metadata*
Assisted with the proposal by PI Dr. Elizabeth Liddy at Syracuse University's Center for Natural Language Processing and Co-PI Dr. Geri Gay at Cornell University's Human Computer Interaction Group, and their research lab staff.

**ASIS STI/BIOSIS Student Travel Award** October 2002
Awarded travel grant to attend annual meeting of ASIST.

**Jeffrey Katzer Fellow,** Syracuse University 2001-2002
First recipient of fellowship memorializing the founder of the School of Information Studies' doctoral program.

**Global Youth Exchange,** Japanese Ministry of Foreign Affairs February 1995
Selected to be one of five Americans attending an international environmental conference in Japan.

**The Pew Program in Undergraduate Science Education,** Pew Scholar Summer 1991
Selected as Cornell University representative for university consortium course on Maine marine biology and policy.

## RESEARCH PROJECTS

**Personal Information Management: Leaving & Keeping Behavior** 2006-Present

This dissertation research seeks to understand personal information management, specifically keeping and leaving behavior, in the context of information being accessible 24/7 from the web and users being constantly connected via wireless devices. Three college courses are used as cases to study this phenomenon with students serving as embedded units within each of the cases. The investigation identifies the various formats of course materials students use, whether they leave them within the course management system (online digital repository) or keep them within their own personal collection, and what factors influence the keeping and leaving behaviors. Both cognitive and affective factors will be elicited. Multiple sources of evidence for the cases are collected – interviews, students' physical artifacts, log data from the course management system, and course documents. Data reduction and analysis techniques include content analysis, metaphor analysis, and matrices.

**Engage Heterogeneous Learners in with Tablet PCs** 2007-Present

*"Round Table: Problem-Based Learning with Tablets to Engage Heterogeneous Learners in Computer Science 101" project funded by Hewlett-Packard's Higher Education Technology for Teaching Grant.*

Lead the evaluation component of a grant-funded project to create a positive learning experience for all students in "Introduction to Computer Science" and to encourage their continued study of and interest in computer science. Professors use Tablet PCs and associated software to obtain immediate feedback on how well the students understand the material via Tablet submission of in-class problems and select which submitted solution to discuss based on its likelihood of increasing the understanding of the class members. For the evaluation component, design, conduct, and analyze surveys and interviews of the students in "Introduction to Computer Science" to discover:

- How academically accessible the course is for students who have different levels of exposure to computer science
- Student satisfaction with the course and, specifically with the use of Tablet PCs for the course
- Students' plans to continue their study of computer science
- How important peer-learning is for students in introductory computer science course.

Initial findings can be found at: http://learn.bowdoin.edu/computer-science/tablets/evaluation.shtml

**Models for Successful Campus-wide GIS Support at Liberal Arts Colleges** 2006-Present

"*Supporting Campus-wide GIS at Liberal Arts Institutions: A Study of Common and Most Effective Models" project funded by the National Institute for Technology in Liberal Education.*

Co-PI with Bowdoin College Science Librarian, Sue O'Dell, to identify common and most successful models of Geographic Information System (GIS) support across liberal arts institutions. For Phase I conducted a survey of 93 liberal arts schools on their GIS usage, infrastructure, data management, and organizational structure. From the survey results, selected four exemplar cases with different approaches to providing broad campus-wide GIS support. Visited the four cases and conducted interviews with faculty and staff with multiple perspectives from different departments. Currently analyzing the cases and identifying the key aspects of these exemplars.

**Narratives in the Classroom** 2002 - 2006

With Dr. Robert Heckman, reviewed the literature about narratives, in general, and specifically the role of narrative in the classroom. From this review, we developed a set of principles as to how narrative engages students and enhances their learning, particularly focusing on the context of technical education. Further, we suggest specific ways to use narrative for different teaching purposes. This research was, more recently, applied to using multimedia to bring the stories of medieval Asian scrolls to college students.

**Flow & Human-Computer Interaction** 2002-2005

With Dr. Ping Zhang, conducted a thorough literature review of Flow theory and its application to computer-mediated environments. While reviewing the existing work, identified the conceptual and methodological limitations of current empirical studies. Developed a conceptual framework to help researchers apply Flow theory to computer-mediated environments and conduct more valid studies.

**Evaluation of Automatically Generated Metadata** 2002-2004

*"MetaTest: Evaluating the Quality and Utility of Metadata" project funded by NSF's NSDL program*

With the support and guidance of Dr. Elizabeth Liddy and Dr. Anne Diekema at the Center for Natural Language Processing (CNLP), conducted qualitative and quantitative evaluation studies of automatically generated metadata compared to manually generated metadata with web-based science and math lesson plans. The qualitative (user judgments) evaluation entailed creating a web-based questionnaire for subject matter experts (science and math teachers) to rate the quality of the metadata. The quantitative evaluation was comprised of information retrieval (IR) experiments comparing the two metadata generation techniques as well as full-text (without metadata). These IR experiments entailed finding equivalent manual metadata to CNLP's automatically generated metadata, developing naturalistic queries for a small collection, gathering relevance judgments from subject matter experts, and specifying the IR engine parameters to evaluate three types of retrieval.

**Media Choice in Collaborative Projects for Blended Environments** 2002 – 2004

With Dr. Robert Heckman, used Media Richness Theory and Social Influences Theory to understand the media choices for student team projects. Content analyzed 13 student team interactions with synchronous and asynchronous communication tools (email, discussion board, chat, instant messaging) to identify patterns of particular teams and media usage within teams. Discovered that most teams mixed media and used asynchronous communication with clearly defined tasks and for apologies or self-disclosures.

## TEACHING

**"Introduction to Blackboard and Blended Learning" Workshop Co-Instructor** Summers 2005-2008
*Bowdoin College,* Brunswick ME

Develop curriculum and taught workshop for introducing faculty at a residential liberal arts college to the concepts and potential benefits of blended learning. Collaboratively planned the hands-on technical part of the workshop with co-instructor.

**IST 611/IDE 613: Information Technologies in Educational Settings Co-Instructor** Fall 2004
*School of Information Studies,* Syracuse University, Syracuse NY

Co-taught a graduate 3-credit online course offered to the School of Information Studies and the School of Education students. This interdisciplinary survey course introduced students to a variety of technologies used in education and training, such as web-based learning tools, wireless communications, videoconferencing systems, and technologies for people with disabilities. The course was required for School Media students and involved fieldwork.

**Teaching Practica to Redesign Courses for Online Medium** 2002-2004
*School of Information Studies,* Syracuse University, Syracuse NY

IST 611/IDE 613: Information Technologies in Educational Settings

Assisted the co-instructors, Dr. Ruth Small from the School of Information Studies and Dr. Michael Spector from the School of Education, to address motivational issues for IST 611, which was a technology-heavy course posing difficulties to students when first delivered online. Developed learning aids for the assignments, which were intended to clarify the assignment expectations, increase student satisfaction, and boost the confidence of the students.

IST 641 Behavior of Information Users

Acted as participant observer for face-to-face version of IST 641, talked to students, and reviewed the archival record of prior semester's distance version of IST 641. Worked with instructor, Dr. Mike Nilan, to re-design the course for online delivery so that it would be satisfying and retain as much of the learning objectives as possible.

**Guest Lecturer** 2002-2004
*School of Information Studies,* Syracuse University, Syracuse NY

IST 449 Human Computer Interaction (undergraduate) on "Affective Computing & Flow Theory"
IST 649 Human Interaction with Computers on "Affective Computing & Flow Theory"
IST 616 Information Resources: Organization and Access on "Access Points & Authority Control" and "Indexing"

## INFORMATION SCIENCE & TECHNOLOGY INDUSTRY EXPERIENCE

**Manager or Education & Research Consulting** Fall 2004 - Present
*Bowdoin College – Information Technology Division,* Brunswick ME

Lead the educational technology group, which supports faculty in their use of technology for teaching and research. At the College level, provide strategy and vision for enhancing teaching and learning with technology. Design and conduct evaluation studies of new technologies. Act as key liaison between the Library and Information Technology and a catalyst for collaborative projects, such as an institutional repository and ebook reader study. Assist faculty with obtaining external funding for technology-related projects. Oversee the training and outreach for campus-wide technology initiatives, such as a new email system and mail clients.

**Research & Instruction Specialist** Summer 2000 – Summer 2001
*Wellesley College Science Library - Information Services Department,* Wellesley MA

Consulted with faculty to integrate information literacy training programs into the curriculum. Taught classes on Web-searching and literature searching with science databases. Compiled relevant resources for undergraduates in science disciplines and created web pages to assist users with accessing information. Co-wrote committee report on the need for implementing an electronic journal locator tool and framed the key issues from both the public and technical services perspective. Represented Wellesley College within Boston-area university consortium's effort to share library resources and skills within the interdisciplinary field of environmental studies.

**Geographic Information Systems (GIS) Consultant** Summer 1998 - Summer 2000

Discussed strategies and wrote proposals for GIS work. Met with potential and existing clients. Provided expertise on GIS data, methodology, implementation, and software selection to clients and staff for various projects. Managed a number of simultaneous projects and the staffing for these projects. Sample projects include:

*Town of Foxborough,* Foxborough MA

Assisted with implementing GIS in Foxborough on an aggressive schedule. Customized GIS applications so that the Town staff could easily produce maps and do basic analysis. Trained selected staff on applications. Managed the integration of GIS hardware and software with the Town's distributed network. Produced interim maps for important Town discussions about traffic patterns near the football stadium.

*Environmental Protection Agency - Office of Enforcement and Compliance,* Washington DC

Managed data mining of various EPA enforcement databases for county-level information. Used MSAccess and SAS to store, merge, and analyze the multiple data sets. Developed and Web-published a catalog of the 70 measures used for the project. Designed and developed a Web-enabled GIS tool with Map Objects Internet Map Server and JavaScript to enable management and researchers to access both raw and aggregated data.

**Geographic Information Systems (GIS) Specialist** Fall 1996 - Summer 1998

*City of Cambridge - Management Information Systems Department,* Cambridge MA

Assisted GIS Manager with strengthening GIS use within city departments and improving coordination between departments. Trained end-users on available GIS data, software, and custom applications. Developed customized ESRI GIS applications to give users easy access to geographic data and hard copy maps. Wrote training documentation. Provided technical support for GIS software and custom GIS applications. Wrote and published featured articles on the Intranet to share solutions between departments. Assisted with the evaluation of GIS software and prioritization of requested data layers.

**Graduate Research Assistant** Summer 1995 - Summer 1996

*National Center for Geographic Information & Analysis,* State University of New York, Buffalo NY

With funding from a New York State agency, worked with team to promote high quality GIS design among municipalities. Assisted writing User Needs Assessment and Requirements Analysis manuals. Designed and developed database tools to assist with GIS user needs assessment and to collect and maintain GIS metadata compliant with federal standards. Considered the needs and constraints of diverse set of potential clients when designing technological tools.

## PRESENTATIONS & PUBLICATIONS

### Peer-Reviewed Journal Articles

Finneran, C.M. and Zhang, P. (2005). Flow in computer-mediated environments: Promises and challenges. *Communications of the Association for Information Systems, 15*, 82-101.

Finneran, C.M. and Zhang, P. (2003). A Person-artifact-task model of flow antecedents within computer-mediated environments. *International Journal of Human-Computer Studies, 59* (4), 475-496.

### Edited Book

Lankes, R.D., Janes, J., Smith, L.C., and Finneran, C.M. (2004). *The Digital reference experience: Integrating theory into practice*. New York: Neal Schuman.

### Peer-Reviewed Conference Papers & Posters

Finneran, C.M. (2008 October). *Factors that influence users to leave, acquire, and retain information items: A case study of college students' personal information management*. Poster to be presented at the Annual Meeting of the American Society for Information Science & Technology, Columbus, OH.

Montgomery, J.R., Fattig, K.M., Finneran, C.M., and Sandlin, R. (2009 March). *Partners in time: creating organic connections between library and information technology divisions at Bowdoin.* Paper to be presented at ACRL (Association of College & Research Libraries National Conference) 14th National Conference. Seattle, WA

Waingwright,K., Osterman, M., Finneran, C., and Hill, B. (2007 October). *Traversing the LMS terrain*. Paper presented at ACM SIGUCCS (University and College Computing Services). Orlando, FL.

Davis, M. and Finneran, C.M. (2007 August). *A culture of innovation: Incubating technology in the humanities*. Paper presented at Campus Technology's 14th Annual Educational Technology Conference. Washington, DC.

Snow, J., O'Dell, S. and Finneran, C. (2007 June). *GIS support at the liberal arts college.* Paper presented at the 2007 ESRI Education User Conference, San Diego, CA.

Finneran, C.M., Fattig, K.M., Sandlin, R., and Montgomery, J.R. (2007 March). *Communication, collaboration, and transformation: Building organic connections between the Library and IT divisions at Bowdoin*. Paper presented at the NERCOMP (Northeast Regional EDUCAUSE) Annual Conference. Worcester, MA.

Finneran, C.M. (2006 October). *Extending your learning management system: Stretching Blackboard to meet the needs of a liberal arts campus*. Paper presented at NITLE's Learning Management Systems at Liberal Arts Colleges. Portland, OR.

Travers, K. and Finneran, C.M. (2006 April). *700 years later: Using multimedia to bring the stories of medieval Asian scrolls to today's students.* Paper presented at Technologies for E-Learning and Digital Entertainment: Edutainment 2006. Hangzhou, China.

Finneran, C.M. (2005 November). *Blended courses and boundaries: Residential students' perceptions*. Paper presented at the 11th Annual Sloan-C International Conference on Asynchronous Learning Networks, Orlando, FL.

Finneran, C.M. and Heckman, R. (2004 November). *Media choice in collaborative projects for blended environments*. Paper presented at the 10th Annual Sloan-C International Conference on Asynchronous Learning Networks, Orlando, FL.

Yilmazel, O., Finneran, C.M., and Liddy, E. D. (2004 June). *MetaExtract: An NLP system to automatically assign metadata*. Paper presented at the Joint Conference on Digital Libraries (JCDL'04), Tucson, AZ.

Heckman, R., Finneran, C.M., and Marshall, T. (2003 November). *Narrative in online education*. Paper presented at the 9th Annual Sloan-C International Conference on Asynchronous Learning Networks, Orlando, FL.

Liddy, E. D., Allen, E. E., Finneran, C.M., Gay, G., Hembrooke, H., and Granka, L.A. (2003 May). *MetaTest: Evaluation of metadata from generation to use*. Poster session presented at the Joint Conference on Digital Libraries (JCDL'03), Houston, TX.

Qin, J. and Finneran, C.M. (2002 July). *Ontological representation for learning objects*. Paper presented at the Workshop on Document Search Interface Design and Intelligent Access in Large-Scale Collections, Joint Conference on Digital Libraries (JCDL'02), Portland, OR.

**Invited Posters**

Palacio, A., Majercik, S., Finneran, C. and Grant, N. (2008 February). *Round table: Problem-based learning with tablets to engage heterogeneous learners in Computer Science 101.* Poster session presented at 2008 HP Technology for Teaching Worldwide Higher Education Conference, San Diego, CA.

Liddy, E. D., Allen, E. E., Finneran, C.M., Gay, G., Hembrooke, H., and Granka, L.A. (2003 October). *Experimental results on utilities of metadata for information access*. Poster session presented at Fourth Annual All Projects Meeting of the National STEM Digital Library (NSDL'03), Washington, DC.

Liddy, E. D., Finneran, C.M., Gay, G., Hembrooke, H. (2002 December). *MetaTest: Evaluating the quality & utility of metadata.* Poster session presented at Third Annual All Projects Meeting of the National STEM Digital Library (NSDL'02), Washington, DC.

**Commissioned Reports**

Becker, P., Calkins, H., Cote, C.J., Finneran, C.M., Hayes, G., and Murdoch, T. (1996) *Geographic information system development guides.* Available: http://www.archives.nysed.gov/a/records/mr_pubGIS03.shtml

## SERVICE

**Committee on Teaching & Learning, Member** – *Bowdoin College,* Brunswick ME Fall 2007 - Spring 2008
Planned and coordinated guest and campus speakers for faculty development.

**Instructional Technology Leaders Workshop, Planning Committee Member** – *NITLE* Fall 2007 - Spring 2008
Assisted with planning of annual conference for educational technologists at liberal arts colleges. Organized panel.

**Multi-cultural Week Planning, Committee Member** – *Syracuse University School of Information Studies* Spring 2003,04
Served on committee to organize 1st and 2nd Multi-cultural Week at School of Information Studies.

**Ph.D. Representative to the Faculty Meeting** – *Syracuse University School of Information Studies* Fall 2002 - Spring 2003
Attended the faculty meetings and reported on them for the Ph.D. students.

**Second Annual Workshop on HCI Research in MIS, Program Committee Member** – *AIS* 2003-2004
Reviewed multiple papers for this HCI workshop preceding the ICIS conference.

**Ad hoc Reviewer** 2002 - Present
International Journal of Human Computer Studies
Communications of the Association for Information Systems
Americas Conference on Information Systems (AMCIS) – HCI track

## MEMBERSHIPS

American Society for Information Science & Technology (ASIST)
SIG USE (ASIST's Special Interest Group on Information Needs Seeking and Use)
Association for Computing Machinery (ACM)
SIGCHI (ACM's Special Interest Group on Computer-Human Interaction)