

Pamela B. Hassebroek, Ph.D.

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EDUCATION

- Ph.D.** ■ Georgia Institute of Technology
Information Technology and Communication Policy, School of Public Policy, Ivan Allen College of Arts and Sciences
Dissertation: Institutionalized Environments and Information Security Management: Learning from Y2K
Dissertation committee: Juan D. Rogers, Ph.D. (Chair), Jay D. Bolter, Ph.D., Gordon Kingsley, Ph.D., Hans K. Klein, Ph.D., Mike Nelson-Palmer, M.S.
- M.S.** ■ Georgia Institute of Technology
Digital Media, School of Literature, Communication and Culture, Ivan Allen College of Arts and Sciences / minor in ***Computer Science***, College of Computing
Thesis project: Town Square: A Communication Interface Designed to Build Technology Skills in Low Tech Communities
Thesis advising committee: Jay D. Bolter, Ph.D. (Chair), Ann Balsamo, Ph.D., Joan Sokolovsky, Ph.D.
- M.S.** ■ The University of Texas at Austin
Petroleum Engineering, College of Engineering / minor in ***Computer Science***, Department of Computer Science
Thesis: Gas Field Development: Automatic Selection of New Producing Wells
Thesis advising committee: Keith H. Coats, Ph.D. (Chair), F. Brons, Ph.D., B. H. Caudle, Ph.D.
- B.A.** ■ Texas Christian University
Mathematics / minor in ***English***, AddRan College of Humanities and Social Sciences

RESEARCH INTERESTS

I have broad interests in management of information and related national and international public policy issues, particularly in the role of institutional influences on communication in international and intercultural conflicts. Current work includes research on counter terrorism strategy, information security in organizations, and international cybercrime law. I have special interest and expertise in theories of communication and in sociological theories of organization and institutions.

PROFESSIONAL EXPERIENCE

Experience reported in three broad categories:

- 1) Research, 2) Teaching and Course development, 3) Engineering and Consulting

1) Research

- The National Academies, Washington, D.C.
Computer Science and Telecommunications Board
2009 Policy Fellow (Herbert Lin, Ph.D., Mentor)
 - Produced research and writing on strategies for countering international terrorism in support of U.S. national defense. The study explored using soft power for reducing acts of terrorism.

- Georgia Institute of Technology, Atlanta, GA

- School of Public Policy**

- Research Affiliate, Internet and Public Policy Project (IP3) (Hans Klein, Ph.D., Director)*

- Ongoing and current research: Examination of institutionalized influences on communication and information management; preparation of manuscripts for publication.

- Ph.D. Candidate (S.E. Goodman, Ph.D., Hans K. Klein, Ph.D., Juan Rogers, Ph.D., advisors)*

- Performed an institutional analysis: a case study of an information technology (IT) project in a large, geographically-dispersed, critical sector organization.

- Graduate Research Assistant (Ann Bostrom, Ph.D., advisor)*

- Developed a research proposal to compare survey experiences by delivery method: e-mail vs. a questionnaire delivered by postal service. The survey was designed to benefit a larger study about the potential human health risks related to global climate change.
 - Consulted on multimedia-based, self-interviewing system for delivering BRCA 1/2 information, improving an informed consent process for genetic screening decisions.

- Georgia Tech Information Security Center (GTISC)**

- Graduate Research Assistant (S.E. Goodman, Ph.D., advisor)*

- Contributed actively to the conceptualization and collaborative writing of three papers on international coordination for information security management, two of which were produced for the International Telecommunication Union (ITU). The third was published in the *Journal of Information Warfare*.

- Graphics, Visualization, and Usability (GVU) Center**

- Independent Researcher (Jay D. Bolter, Ph.D., advisor)*

- Performed an independent field study at an urban elementary school to test a community web portal, developed as a part of the master's thesis at Georgia Institute of Technology.

- Multimedia Designer (Scott Hudson, Ph.D., developer and team leader)*

- Developed interactor designs for the SubArctic project, a Java-based user interface toolkit.

- Wesley Center for New Media**

- Graduate Research Assistant (Peter McGuire, Ph.D., Director)*

- Produced research for Internet and multimedia courses offered to business and industry professionals.
 - Developed a web-based information repository as an Intranet for the resources used in preparing and presenting course materials.

- The University of Texas at Austin, Austin, TX

- Petroleum Engineering Department**

- Master's Candidate (Keith H. Coats, Ph.D., advisor)*

- Developed a computer-based numerical simulation model that solved simultaneous partial differential equations to calculate the optimal location for new wells in a gas reservoir based on past production, formation and fluid descriptions, and locations of existing wells. Note: Dr. Coats was elected to the National Academy of Engineering in 1988, an honor that is among the highest professional distinctions accorded to an engineer, "for pioneering work in the development of computer methods for simulation of oil and gas reservoir performance."

- Graduate Research Assistant (Ben H. Caudle, Ph.D., Texas Petroleum Research Committee)*

- Performed troubleshooting and code rewrite for an application program designed to compute the reservoir production performance from a waterflood project.

- Texas Christian University (TCU), Fort Worth, TX

TCU Computer Center

Programmer/ Undergraduate Research Assistant (Saul B. Sells, Ph.D., advisor)

- Developed program code at the TCU Institute of Behavioral Research (IBR) for the statistical analysis of data gathered by the Department of the Navy.

2) Teaching and Course Development

- Georgia Institute of Technology (Georgia Tech), Atlanta, GA

School of Public Policy

Co-instructor (with Juan D. Rogers, Ph.D.)

- Served as developer and instructor for the Ph.D. Research Seminar, a required course for Ph.D. students in the School of Public Policy.
- Developed and implemented materials supporting instruction in qualitative research methods and computer-based analysis.
- Managed the syllabus redesign, along with the transfer and maintenance of class materials on a new Georgia Tech web-based delivery system.

Georgia Tech Information Security Center (GTISC)

Graduate Teaching Assistant (S.E. Goodman, Ph.D., Professor of Computer Science and International Affairs, GTISC Co-director for Policy, advisor)

- Participated as course developer, instructor, and class coordinator for Information Security Strategies and Policies, a graduate-level course in the College of Computing, implemented in Spring 2002 and ongoing.
- Coordinated and facilitated guest lectures; designed and managed a dynamic syllabus and class website.
- Developed a class module, under a Department of Defense grant, that forms an introduction to information security issues within large, geographically-dispersed organizations.

College of Computing

Guest lecturer (S.E. Goodman, Ph.D., advisor)

- Social Impact of Computing
- Science, Technology, and International Relations

- The Lovett School (K-12), Atlanta, GA

Teacher and Middle School Computer Coordinator

- Taught classes in computer literacy and programming for 6th-8th grades.
- Served as 7th grade advisor.
- Contributed to the implementation of school-wide network and faculty communication system, which included networking all computing labs.
- Led instructional seminars for initial systems providing web and email services for the Faculty.

- Taipei American School (K-12), Taipei, Taiwan

Teacher and Middle School Computer Coordinator

- Taught classes in computer literacy and programming (LOGO) for 6th-8th grades.
- Participated in curriculum development, and software/hardware selection and implementation.

- St. John's School (K-12), Houston, TX

Teacher and Lower School Computer Coordinator

- Developed and implemented computer curricula, hardware/software design and acquisition for computing labs and classrooms.

- Taught classes for Lower School students in computer-based writing and publishing, robotics, reading, mathematics enrichment, programming (BASIC), and other specialized applications.
- Served as faculty resource for purchase, training, and maintenance of software and hardware.

3. Engineering and Consulting

- Tenneco Oil Company, Houston, TX
Project Petroleum Engineer, Headquarters Production Staff
 - Designed and implemented reservoir simulation models to assist in evaluating complex reservoir exploitation problems, esp., studying the feasibility of enhanced oil recovery (EOR), e.g., injecting CO₂ into reservoirs nearing the end of economic life.
 - Consulted on reservoir engineering computer applications with engineers in the 12 domestic operating divisions.
 - Recommended and specified upgraded computing tools for operations engineers.
- Exxon Production Research Company, Houston, TX
Project Research Engineer, Production Department (Reservoir Engineering Section)
 - Developed and managed applied research studies of major world petroleum reservoirs (Abu Dhabi, Brent, Tom O'Connor) using numerical simulation as the primary tool for studying various reservoir description and production problems.
 - Evaluated Exxon Co., U.S.A.'s gas reserves in the East Texas Division.
- Intercomp, Inc. (now Coats Engineering, Inc.), Houston, TX
Petroleum Consultant
 - Served as project leader for design/ implementation of a reservoir simulation model to assist in production management for a regional gas production and distribution company.
- Shell Oil Company, Houston, TX
Petroleum Engineer, Southwestern Region Staff
 - Served as consultant and headquarters liaison between the engineering personnel in the operating divisions and the Shell centralized computing resources.
 - Designed and implemented a numerical simulation model for a dual waterflood project.

SELECTED HONORS, FELLOWSHIPS, AND AWARDS

Mirzayan Policy Fellow, The National Academies, Computer Science and Telecommunications Board	2009
International Information Systems Security Certification Consortium [ISC] ² Information Security Scholarship Award	2005
Outstanding Ph.D. Student, School of Public Policy, Georgia Institute of Technology	2005
Cisco Systems Information Assurance Scholarship	2004
Distinguished Graduate Award, Sherman High School, Sherman, TX	2004
U.S. Department of Defense Information Assurance Scholarship Program (IASP) grant	2003
Georgia Institute of Technology GVU Center Travel Award	1998
Honorable Mention, Graduate Student Competition, ACM SIGDOC (Special Interest Group on Design of Communication) Conference, Quebec City, Canada.	1998

Earlier awards:

Research grant, American Gas Association, The University of Texas at Austin

Pi Epsilon Tau, National Engineering Honor Society

Pi Mu Epsilon, National Mathematics Honor Society

PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science (AAAS)
 Association for Computing Machinery (ACM)
 Association for Information Systems (AIS)
 International Communication Association (ICA)

ACCREDITATION

Registered Professional Engineer (Texas)

PUBLICATION

- Goodman, Seymour E., Pamela B. Hassebroek, Davis King, and Andy Ozment. (2003). **International Coordination to Increase the Security of Critical Network Infrastructures.** *Journal of Information Warfare*, 2(2), 72-87.

CONFERENCE ARTICLES AND PRESENTATIONS

- Hassebroek, Pamela B. (2008). **Improving the Security of Information through Sector-based Organizations.** ICA Congress of Americas II Conference, Uniting the Americas: Exploring Media Convergence, Public Communication, and Intercultural Communication, Mexico City.
- Goodman, Seymour E., Pamela B. Hassebroek, and Hans K. Klein. (2003). **Network Security: Protecting Our Critical Infrastructures. Visions of the Information Society,** International Telecommunication Union, Geneva.
- Goodman, Seymour E., Pamela B. Hassebroek, Davis King, and Andy Ozment. (2002). **International Coordination to Increase the Security of Critical Network Infrastructures.** ITU Symposium on Creating Trust in Critical Network Infrastructures, International Telecommunication Union, Seoul, Republic of Korea.
- Hassebroek, Pamela B. (2001) **Developing Infrastructure in Developing Countries: Globalizing Information Technology in Kenya.** AACE World Conference on Educational Multimedia, Hypermedia and Telecommunications, ED-MEDIA 2001, University of Tampere, Tampere, Finland.
- Hassebroek, Pamela B. (1998). **Using the Internet to Provide Communication Benefits to a Low Tech Community.** AACE World Conference on Educational Multimedia, Hypermedia and Telecom, Albert-Ludwigs University, Freiburg, Germany.
- Hassebroek, Pamela B. (1998). **Using the Internet to Transform Social Boundaries.** 48th Annual ICA Conference, (Mis)Communicating Across Boundaries, Jerusalem, Israel.
- Hassebroek, Pamela B. (1998). **Internet Technologies as Transformational Utilities.** ACM SIGDOC 1998, Scaling the Heights: The Future of Information Technology, Quebec City, Canada.
- Hassebroek, Pamela B. (1998). **The Internet for a Change of Place, a Vehicle for Social Mobility.** Interdisciplinary Student Conference: realEstate: Transactions in Culture and Space, Emory University Graduate Institute of the Liberal Arts, Atlanta, GA.

ADDITIONAL PROFESSIONAL ACTIVITIES

- American Bar Association (ABA) Section of Science and Technology Law
Member, Privacy and Computer Crime Committee
 - Contributed to the development of the **International Telecommunication Union (ITU) Toolkit for Cybercrime legislation**, for assisting nations in harmonizing international cybercrime law.
 - Participated collaboratively on three books: **International Guide to Combating Cybercrime** (2003), **International Guide to Cyber Security** (2004), and **International Guide to Privacy** (2004).
- Association for Computing Machinery (ACM) Special Interest Group on Computer-Human Interaction (SIGCHI)
Invited speaker, CHI-Atlanta, Atlanta Metro Area chapter
 - Keynote presentation at CHI-Atlanta: **A 'TownSquare' Web Project for East Lake Meadows.**
- International Communication Association (ICA)
Manuscript reviewer for Annual ICA Conference,
Communication and Law Division (2008, 2009, 2010)
Information Systems Division (2006)
Manuscript reviewer for the Journal: Communication, Culture and Critique (2008)
- School of Public Policy (SPP), Georgia Institute of Technology
Webmaster for the SPP website (Susan Cozzens, Ph.D., Department Chair)
 - Redesigned the SPP website.
 - Designed database systems for two major website additions: news archive and internships activities. Supervised a team of undergraduate Computer Science students to implement designs using Georgia Tech server applications.

COMMUNITY ACTIVITIES

- First Presbyterian Church (FPC), Atlanta, GA
Member, Communications Committee
Designer and coordinator for original website
Member, Interfaith Dialogue Group, Rabbi Peter S. Berg, George B. Wirth, D.Min., D.D. (Directors)
Member Steering committee, Congregational collaboration between FPC and The Temple
 - Curriculum development project:
“**The Scandal of Particularity**,” Institute for Christian & Jewish Studies, Baltimore, MD (<http://www.icjs.org>), Rabbi Ilyse Kramer, Christopher M. Leighton, Ph.D. (Project directors)
- Sherman High School Alumni Association, Sherman, TX
Invited speaker
 - Keynote presentation at annual meeting: “**Responding to Citizenship after 9/11.**”
- The Coca-Cola Company, Atlanta, GA
Invited speaker, Johnnetta B. Cole Leadership Society
 - Keynote presentation at the 2nd Women’s Leadership luncheon: “**Women’s Investment in Our Community.**”
- United Way of Metropolitan Atlanta, Atlanta, GA
Invited speaker, The Alexis de Tocqueville Society
 - Keynote presentation at the 1999 Women’s Philanthropy Luncheon: “**Women and Philanthropy.**”