

ERIC P. S. BAUMER

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EDUCATION

Ph.D. Information and Computer Sciences, Informatics, 2009

University of California, Irvine, 2004 - 2009

- Dissertation: *Computational Metaphor Identification to Foster Critical Thinking and Creativity*
- Dissertation Committee: Bill Tomlinson (advisor), Lindsey Richland, Paul Dourish

M.S. Information and Computer Sciences, Informatics, 2006

University of California, Irvine, 2004 - 2006

- Advisor: Bill Tomlinson

B.S. Computer Science with Honors in the Major, Minor in Music, Magna Cum Laude, 2004

University of Central Florida, Orlando, FL, 2000 - 2004

- Thesis: *Toward the Design of an Emotion-Like State Generator for a Robotic Office Assistant*
- Thesis Committee Chair: Christine Lisetti

PUBLICATIONS

Journal Papers

- J2. Tomlinson, B., Yau, M.L., Baumer, E., Ross, J., Correa, A., Ji, G. (2009). Richly Connected Systems and Multi-Device Worlds. *Presence: Teleoperators and Virtual Environments*, 18(1), MIT Press.
- J1. Tomlinson, B., Baumer, E., Yau, M.L., Carpenter, F.L., Black, R. (2008). A Participatory Simulation for Informal Education in Restoration Ecology. *E-Learning*, 5 (3).

Conference Proceedings

- C10. Baumer, E.P.S., Sinclair, J., and Tomlinson, B. (2010). "America Is Like Metamucil:" Critical and Creative Thinking about Metaphor in Political Blogs. in *ACM Conference on Human Factors in Computing Systems (CHI)*. (Atlanta, GA). [22% acceptance rate]
- C9. Baumer, E.P.S., Tomlinson, B., Hansen, J., and Richland, L.E. (2009). Fostering Metaphorical Creativity Using Computational Metaphor Identification. in *ACM Conference on Creativity & Cognition*. (Berkeley, CA). [23% acceptance rate]
- C8. Baumer, E.P.S., Sinclair, J., Hubin, D., and Tomlinson, B. (2009). metaViz: Visualizing Computationally Identified Metaphors in Political Blogs. in *The IEEE Symposium on Social Computing (SocialCom)*. (Vancouver, BC, Canada).
- C7. Baumer, E., Tomlinson, B., and Richland, L.E. (2009). Computational Metaphor Identification: A Method for Identifying Conceptual Metaphors in Written Text. in *The Second International Analogy Conference (Analogy09)*. (Sofia, Bulgaria).
- C6. Baumer, E., Richland, L.E., and Tomlinson, B. (2009). Applying Computational Metaphor Identification to Middle School Students' Writing about Cellular Reproduction.

in *National Association for Research in Science Teaching Annual Conference (NARST)*. (Garden Grove, CA).

- C5. Baumer, E., Sueyoshi, M., and Tomlinson, B. (2008). Exploring the Role of the Reader in the Activity of Blogging. in *ACM Conference on Human Factors in Computing Systems (CHI)*. (Florence, Italy). [22% acceptance rate]
- C4. Baumer, E. and Fisher, D. (2008). Smarter Blogroll: An Exploration of Social Topic Extraction for Manageable Blogrolls. in *Hawai'i International Conference on System Sciences (HICSS), Social Spaces Minitrack*, (Big Island, HI). [38% acceptance rate]
- C3. Baumer, E. and Tomlinson, B. (2006). The Interconnected Roles of Abstraction and Emergence in Artificial Societies. in *AAAI Fall Symposium on Interaction and Emergent Phenomena in Societies of Agents*, (Arlington, VA).
- C2. Alspaugh, T. A., Tomlinson, B. and Baumer, E. (2006). Using Social Agents to Visualize Software Scenarios. in *ACM Symposium on Software Visualization (SOFTVIS '06)*, (Brighton, UK). [36% acceptance rate]
- C1. Tomlinson, B., Yau, M. L. and Baumer, E. (2006). Embodied Mobile Agents. *Fifth International Joint Conference on Autonomous Agents and Multi Agent Systems*, (Hakodate, Japan). [23% acceptance rate]

Workshop Papers, Posters, and Other Fora

- W10. Baumer, E. and Tomlinson, B. (2008). Computational Metaphor Identification in Communities of Blogs. in *International Conference on Weblogs and Social Media (ICWSM) Poster Session*. (Seattle, WA).
- W9. Baumer, E., Sueyoshi, M., and Tomlinson, B. (2008). Examining Privacy in Blogging from the Reader's Perspective. in *International Conference on Weblogs and Social Media (ICWSM) Poster Session*. (Seattle, WA).
- W8. Baumer, E. (2007). Computational Metaphor Extraction to Encourage Critical Reflection and Support Epistemological Pluralism. in *Doctoral Consortium of the Conference on Computer Supported Collaborative Learning (CSCL)*, (New Brunswick, NJ). [56% acceptance rate]
- W7. Baumer, E. and Tomlinson, B. (2007). Questioning the Technological Panacea: Three Reflective Questions for Designers. in *alt.CHI Session of CHI'07 Extended Abstracts on Human Factors in Computing Systems*, (San Jose, CA). [41% acceptance rate]
- W6. Baumer, E. and Tomlinson, B., (2007). Advocating Polytheoretic Evaluation of Interactive Art and New Media. in *HCI and New Media: Methodology and Evaluation; Workshop at ACM SIGCHI Conference*, (San Jose, CA).
- W5. Alspaugh, T. A., Baumer, E., and Tomlinson, B. (2006). On a Mixed-Methods Evaluation of a Social-Agent Scenario Visualization. in *Fourth International Workshop on Comparative Evaluation in Requirements Engineering (CERE'06)*, (Minneapolis, MN).
- W4. Tomlinson, B., Baumer, E. and Yau, M.L. (2006). The Island Metaphor. in *SIGGRAPH 2006 Posters*, (Boston, MA).
- W3. Tomlinson, B., Yau, M. L., Baumer, E., Goetz, S., Carpenter, L., Pratt, R., Young, K., May-Tobin, C. (2006). "The EcoRaft Project: A Multi-Device Interactive Graphical Exhibit for Learning about Restoration Ecology." In: *ACM Conference on Human Factors in Computing Systems (CHI 2006), Work in Progress*. (Montreal, Canada).

- W2. Baumer, E. and Tomlinson, B. (2005). Synthetic Social Construction for Autonomous Characters. in *AAAI Workshop on Modular Construction of Human-Like Intelligence*, (Pittsburgh, PA).
- W1. Williams, A. and Baumer, E. (2005). Exploring Shopping Malls as Sites of Suburban Computing. in *Engaging the City: Public Interfaces as Civic Intermediary, Workshop at CHI 2005*, (Portland, OR).

Chapters in Edited Volumes

- Ch2. Baumer, E. and Tomlinson, B. (in press, 2009). Relationships between the Processes of Emergence and Abstraction in Societies. to appear in Trajkovski, G. and Collins, S. (eds.) *Handbook of Research on Agent-Based Societies: Social and Cultural Interactions*. Hershey, PA: IGI-Global.
- Ch1. Baumer, E. and Tomlinson, B. (2005). "Institutionalization Through Reciprocal Habitualization and Typification." In: *Second NASA/JPL Workshop on Radical Agent Concepts (WRAC)*. NASA Goddard Space Flight Center, Greenbelt, MD. Published in *Innovative Concepts for Autonomic and Agent-Based Systems, Lecture Notes in Computer Science*, Vol. 3825, p. 122-134, Springer-Verlag, 2006.

INTERACTIVITY

Interactive Installations

- I3. Tomlinson, B., Baumer, E., Yau, M.L., MacAlpine, P., Canales, L., Correa, A., Hornick, B. and Sharma, A. (2007). Dreaming of Adaptive Interface Agents. in *ACM Conference on Human Factors in Computing Systems (CHI 2007) Extended Abstracts (Trends - Interactivity)*, (San Jose, CA).
- I2. Baumer, E., Tomlinson, B., Yau, M.L., Alspaugh, T.A. (2006). "Normative Echoes: Use and manipulation of player generated content by communities of NPCs." in *Artificial Intelligence and Interactive Digital Entertainment (AIIDE-06), Demonstration Program*. (Marina del Rey, CA).
- I1. Tomlinson, B., Yau, M.L., Gray, J., Baumer, E., Goetz, S., O'Connell, J., Williams, K., Yamaoka, S. (2005). Virtual Raft Project. in *ACM SIGGRAPH 2005, Emerging Technologies*, (Los Angeles, CA). [12% acceptance rate]

Organized Workshops and Panels

- O3. Baumer, E., Brewer, J., Brown, B., Leahu, L., Lindtner, S., and Martin, K. (2009). Hybrid Design Practices. at *International Conference on Ubiquitous Computing (UbiComp2009)*. (Orlando, FL). [co-organizer]
- O2. Dourish, P., Sim, S.E., and Tomlinson, B. (2009). Environmental Sustainability and Information Technology. *UC Irvine Informatics Seminar* (Irvine, CA). [panel organizer and moderator]
- O1. Baumer, E. and Biel, K. (2007). Graduate Student Forum on Interdisciplinary Research. California Institute for Telecommunications and Information Technology (Calit2). (Irvine, CA). [lead organizer]

Speaking, Lectures, and Other Presentations

- S9. Baumer, E.P.S. (2009). Computational Technology and Situated Cognition. *Guest Lecture, In4matx 161 Social Analysis of Computing* . November 17, 2009. University of California, Irvine.
- S8. Baumer, E. (2009). Fostering Critical Thinking and Metaphorical Creativity with Computational Metaphor Identification. *Invited Talk, School of Education Graduate Seminar* . October 26, 2009. University of California, Irvine.
- S7. Baumer, E. (2009). What Do Metaphors Have to Do with Computers or Science? *Guest Speaker, 7th Grade IMaST (Integrating Mathematics and Science with Technology) Gifted Science Class*. January 5, 2009. Carwise Middle School.
- S6. Baumer, E. (2008). Blog Readers and Political Metaphor. *Guest Lecture, In4matx 161 Social Analysis of Computing* . November 18, 2008. University of California, Irvine.
- S5. Baumer, E. (2008). Blog Reading and the Role of the Reader. *Guest Speaker*. May 12, 2008. Orange County Register.
- S4. Baumer, E. (2008). Blog Reading and Blog Readers: Tools and Practices. *Invited Research Talk*. May 8, 2008. Microsoft Research, Redmond.
- S3. Baumer, E. (2008). Blog Reading and Blog Readers: Tools and Practices. *Guest Speaker, DUB Research Group*. April 2, 2008. University of Washington.
- S2. Baumer, E. (2008). Emotion and Computation in Computer Games. *Guest Lecture, University Studies 12 Computer Games as Art, Culture, and Technology*. February 12, 2008. University of California, Irvine.
- S1. Baumer, E. (2007). Metaphor – Blogging – Politics. *Guest Lecture, In4matx 161 Social Analysis of Computing* . November 15, 2007. University of California, Irvine.

TEACHING

Teaching Assistant

- University Studies 12 – Video Games as Art, Culture, and Technology, 2007 - 2008
- Informatics 163 – Project in Social Implications of Computing, Spring 2007
- Informatics 42 – Informatics Core II, Winter 2007

Mentoring and Advising

Undergraduates

- James Paul White, Fall 2009 – present
UROP Fellow, 2010, \$700
- Christopher Pestano, Fall 2009 – present
UROP Fellow, 2010, \$700
- Allison Leis, Fall 2009 – present
- Jordan Sinclair, Spring 2008 – Winter 2009
SURF-IT Fellow, 2008, \$3000
- David Hubin, Winter 2008 – Spring 2008
Honors Thesis, 2008
- Mark Sueyoshi, Spring 2007 – Spring 2009
SURF-IT Fellow, 2007, \$3000

EMPLOYMENT

Informatics Department, UC Irvine, Irvine, CA, 2009-present

Assistant Project Scientist

- Designed, contributed to, and led a variety of research projects and evaluations thereof
- Published research in proceedings of academic conferences and scholarly journals
- Used: Python, Java, MySQL, Javascript, Adobe Photoshop, Adobe Illustrator, JOAL, Sound Forge, Sonic Foundry ACID, Adobe Premiere, Final Cut Pro, Qualitative and Ethnographic Research Methods, Quantitative Research Methods

Informatics Department, UC Irvine, Irvine, CA, 2005-2006, 2008-2009

Graduate Student Researcher

- Contributed to, designed, and led a variety of research projects and evaluations thereof
- Supervised several undergraduate students on different projects
- Published research in proceedings of academic conferences and scholarly journals
- Used: Python, Java, MySQL, Javascript, Adobe Photoshop, Adobe Illustrator, JOAL, Sound Forge, Sonic Foundry ACID, Adobe Premiere, Final Cut Pro, Qualitative and Ethnographic Research Methods, Quantitative Research Methods

Community Technologies Group, Microsoft Research, Redmond, WA, Summer 2006

Research Intern

- Developed a web-based tool with the Microsoft Gadget framework using topic extraction to assist in social search on blogs
- Designed and conducted a user study of application prototype
- Published results in HICSS paper (publication C5)
- Used: Python, SQL Server, Javascript, DHTML, CSS, XML, C#, Quantitative Research Methods

Distributed Simulation Technology, Inc, Orlando, FL, 2001-2004

Student Software Engineer

- Contributed to GL Studio, a software tool for creating OpenGL-based training and simulation interfaces across Windows (2000 and XP), IRIX, and Linux (Red Hat)
- Work directly with clients to implement training and simulation interfaces
- Create textures for interfaces from raw cockpit photos
- Used: C/C++, MS Developer Studio, Redhat Linux, Adobe Photoshop

Burnett Honors College Summer Institute, UCF, Orlando, FL, Summers 2003, 2004

Teaching Assistant

- Three-week course to expose high school students to various introductory and advanced computer science concepts
- Wrote lesson plans, helped design labs, and taught discussion sections for the equivalent of AP Computer Science
- Worked with students one-on-one during lab sections

AWARDS

Scholarships

- NSF CreativeIT Travel Grant, 2008
- Calit2 Emulex Fellowship, 2006-2007
- GAANN Fellowship, 2006-2007
- School of Information and Computer Science Dean's Fellowship, 2004-2006
- Honors in the Major Thesis Scholarship, 2003

- Burnett Honors College Summer Study Abroad Scholarship, Summer 2001
- Florida Bright Futures Scholarship, 2000-2004

Honors

- Finalist, Microsoft Research Graduate Fellowship, 2006
- Finalist, Peoria Prize, “The Virtual Raft Project,” 2005
- Burnett Honors College Honors in the Major, 2004
- Burnett Honors College University Honors, 2004

SERVICE

Reviewer

- ACM Conference on Human Factors in Computing (CHI), 2007, 2009-2010
- ACM Conference on Creativity & Cognition, Posters, 2009
- IEEE Symposium on Social Computing (SocialCom), 2009
- National Association of Research in Science Teaching Conference (NARST), 2009
- New Media & Society, 2008-2009
- HICSS Advanced Teaching and Learning Technologies Minitrack, 2009
- ACM Conference on Computer-Supported Cooperative Work (CSCW), 2008
- ACM Conference on Human Factors in Computing, alt.chi, 2007
- ACM Transactions on Human-Computer Interaction, 2006, 2007
- The Information Society Journal, 2006
- International Journal of Continuing Engineering Education and Life Long Learning Special Issue on Narrative and Interactive Learning Environments, 2006

Student Volunteer

- AAAI 2005

Informatics Graduate Student Association

- Treasurer, 2008-2009

Associated Graduate Students

- Council Member, 2007-2009
- Student Representative to Council on Research, Computing, and Libraries, 2008-2009

MEMBERSHIPS

Association for Computing Machinery (ACM) – 2007-present
 American Association for Artificial Intelligence (AAAI) – 2005-present
 Institute of Electrical and Electronics Engineers (IEEE) – 2005-present
 International Society for the Learning Sciences (ISLS) – 2007-present

EXTRACURRICULAR

Ultimate Frisbee Club Team at UCI, 2004-2009

- 2005-2006 – Club President
- 2005-2006 – Most Improved Club Sport

Intramural Frisbee Team, Fall 2002, Spring 2004

- 2002 - Team Captain

Orlando Frisbee Summer League, Summers 2002-2004

- 2002, 2004 - League Champions