

BRENT HECHT

Curriculum Vitae

CollabLab
Frances Searle Bldg. #2-419
2240 Campus Drive
Northwestern University
Evanston, IL 60208
United States

e-mail: brent@u.northwestern.edu
web: <http://www.brenthecht.com>

Education

Northwestern University
Evanston, IL
2008 - Present

Doctor of Philosophy, Computer Science (IN PROGRESS)

Faculty Advisor: Dr. Darren Gergle

University of California, Santa
Barbara
Santa Barbara, CA
2005 - 2007

Master of Arts, Geography

Thesis: *Utilizing Wikipedia as a Spatiotemporal Knowledge Repository*. Faculty Advisors: Dr. Martin Raubal and Dr. Keith Clarke.

Universität Münster
Münster, Germany
2006 - 2007

Visiting Scholar

Worked at the Institute for Geoinformatics to develop collaborative research projects between UC Santa Barbara and Uni. Münster.

Macalester College
St. Paul, MN
2002 - 2005

Bachelor of Arts (Honors), Geography

Thesis: *Mapalester: A Free, Easy to Use and Powerful GIS*. Graduated Magna Cum Laude.

Macalester College
St. Paul, MN
2002 - 2005

Bachelor of Arts (Honors), Computer Science

Thesis: *Mapalester: A Free, Easy to Use and Powerful GIS*. Graduated Magna Cum Laude.

Areas of Specialization

Mining Culture / Culturally Aware Applications / Cultural HCI
Geographic HCI / Web 2.0 Geography
Information Retrieval
Semantic Relatedness
GIScience / Geography
User-Generated Content (Wikipedia, Flickr)
Volunteered Geographic Information
Natural Language Processing
Geovisualization / Information Visualization
Location-based Services
Web Knowledge Repositories
Geography and Narrative Theory

Publications

Refereed Proceedings and
Journal Articles

Hecht, B. and D. Gergle (2010). The Tower of Babel Meets Web 2.0: User-Generated Content and its Applications in a Multilingual Context. CHI '10: 28th ACM Conference on Human Factors in Computing Systems. Atlanta, GA, USA. **Winner: Best of CHI 2010 (Top 1%)**

Hecht, B. and D. Gergle (2010). On the “Localness” of User-Generated Content. CSCW '10: 2010 ACM Conference on Computer-Supported Cooperative Work. Savannah, Georgia, USA.

Hecht, B. and E. Moxley (2009). Terabytes of Tobler: Evaluating the First Law in a Massive, Domain-Neutral Representation of World Knowledge. COSIT '09: 9th International Conference on Spatial Information Theory. L'Aber W'rach, France, Springer: 88 - 105. **Winner: Best Presentation Award**

Hecht, B. and D. Gergle (2009). Measuring Self-Focus Bias in Community-Maintained Knowledge Repositories. Communities and Technologies 2009: Fourth International Conference on Communities and Technologies, University Park, PA, USA. ACM: 11-21.

Hecht, B. and J. Schöning (2008). Mapping the Zeitgeist. GIScience 2008: 5th International Conference on Geographic Information Science (Extended Abstract). H. Miller and T. Cova. Park City, Utah, United States. **Winner: Best Extended Abstract**

Schöning, J., **B. Hecht**, M. Raubal, A. Krüger, M. Marsh, M. Rohs. (2008). Improving interaction with virtual globes through spatial thinking: Helping users ask "why?". IUI '08: 13th International Conference on Intelligent User Interfaces. Gran Canaria, Spain, ACM: 129-138.

Hecht, B. and M. Raubal (2008). GeoSR: Geographically explore semantic relations in world knowledge. AGILE '08: Eleventh AGILE International Conference on Geographic Information Science. L. Bernard, A. Friis-Christensen and H. Pundt. Girona, Spain, Springer-Verlag. The European Information Society: Taking Geoinformation Science One Step Further: 95 - 114.

Schöning, J., **B. Hecht**, N. Starosielski (2008). Evaluating automatically generated location-based stories for tourists. CHI '08: 26th International Conference on Human Factors in Computing Systems (Extended Abstracts). Florence, Italy, ACM.

Hecht, B., N. Starosielski, D. Dara-Abrams. (2007). Generating Educational Tourism Narratives from Wikipedia. AAAI-INT '07: Association for the Advancement of Artificial Intelligence Fall Symposium on Intelligent Narrative Technologies. B. Magerko, M. Riedl, B. Loyall, R. M. Young and M. Mateas. Arlington, VA, USA: 37-44.

Hecht, B., M. Rohs, J. Schöning, A. Krüger. (2007). Using Magic Lenses to Explore Georeferenced Wikipedia Content. PERMID 2007: 3rd International Workshop on Pervasive Mobile Interaction Devices in Conjunction with Pervasive 2007. E. Rukzio, J. Hakkila, R. Ballagas, A. Wilson and D. Reilly. Toronto, Canada: 6-10.

Schöning, J., **B. Hecht**, N. Starosielski. (2007). WikEar - Automatically Generated Location-Based Audio Stories Between Public City Maps. UbiComp '07: 9th International Conference on Ubiquitous Computing (Demo Proceedings). Innsbruck, Austria, ACM.

Rohs, M., J. Schöning, A. Krüger, **B. Hecht**. (2007). Towards Real-time Markerless Tracking of Magic Lenses on Paper Maps. Pervasive '07: 5th International Conference on Pervasive Computing (Late-Breaking Results). Toronto, Canada: 69-72.

Refereed Book Chapters

Hecht, B. and D. Gergle (2010). A Beginner's Guide to Geographic Virtual Communities Research. Handbook of Research on Methods and Techniques for Studying Virtual Communities: Paradigms and Phenomena. B.K. Daniel. IGI Global. (To Appear)

Other Refereed Publications

Hecht, B. (2009). Data Indexing. In B. Warf (Ed.), The Encyclopedia of Geography: SAGE.

Technical Reports and Maps

Hecht, B. 2007. Wikipedia Volunteered Geographic Information. Volunteered Geographic Information Position Statement. Workshop on Volunteered Geographic Information. December 13-14, 2007.

Hecht, B. 2007. Popularity of Christian Contemporary Music in the United States. In Understanding Place: GIS and Mapping Across the Curriculum, eds. Diana Stuart Sinton, and Jennifer J. Lund, 264-265. ESRI Press.

Grants, Honors, and Awards

National Science Foundation Graduate Research Fellowship.

Full support for 3 years. 2010 - 2013.

Best of CHI 2010. *Tower of Babel Meets Web 2.0 (Hecht and Gergele)* was awarded "Best of CHI 2010", which designates the top 1% of papers.

Best Presentation Award. COSIT 2009. Conference attendees selected *Terabytes of Tobler (Hecht and Moxley 2009)*.

Best Extended Abstract. GIScience 2008. Conference attendees selected *Mapping the Zeitgeist (Hecht and Schöning 2008)*.

Royal E. Cabell Endowed University Fellowship. Northwestern University. 2008 - 2009. One year of full funding. "Available on a competitive basis to the most outstanding students".

AGILE Student Grant Programme. Travel grant to go to AGILE 2008 conference in Girona, Spain. Funded by ESRI. ~\$1,000.

Outstanding Student Paper Award. Association of American Geographers (AAG) International Geographic Information Fund (IGIF). \$200. February 2008. Received for *Generating Educational Tourism Narratives from Wikipedia (Hecht et al. 2007)*. Award is "In recognition of outstanding student papers in any area of spatial analysis or geographic information science or systems," from the leading organization of geographers in the world.

Student Travel Grant. Association of American Geographers (AAG) International Geographic Information Fund (IGIF). \$750.

Jack Dangermond Travel Fellowship. UCSB Department of Geography and ESRI. \$2,000. August 2006.

Integrative Graduate Education and Research Traineeship (IG-ERT) Grant. University of California, Santa Barbara. \$60,000 plus tuition and fees. 2005 - 2008.

Regents Fellowship. University of California, Santa Barbara. \$36,000 plus tuition and fees. 2005 - 2010.

Robert R. Church Memorial Prize for Student Scholarship in GIS. National Institute for Technology and Liberal Education. \$500. 2005.

National Council for Geographic Education Outstanding Senior. Macalester College. 2005.

Minnesota GIS/LIS Consortium Scholarship Award. MN GIS/LIS Consortium. 2004.

Keck/Bigelow Student/Faculty Summer Research Collaboration Grant. Macalester College. \$5,410. 2004.

Invited Presentations

Hecht, B., Starosielski, N. Minotour: Narrative Theory for Wikipedia, *Screening Media*, Los Angeles, CA, October 2007.

Schöning, J., **Hecht, B.** Tracking of Magic Lenses on Paper Maps, *Spatial Technology Gallery*, Association of American Geographers Meeting, San Francisco, April 18, 2007.

Hecht, B., Smith, L. Mapalester: A Free, Easy to Use and Powerful GIS. *Private College Scholars at the Capitol*, St. Paul, MN, February 3, 2005.

Hecht, B. The Geography of Christian Contemporary Music, *Teaching with GIS in the Liberal Arts*, Colorado College, Colorado Springs, CO, August 6, 2004.

Professional Activities

Student Conference Volunteer (SV). *CSCW '10: The 2010 ACM Conference on Computer Supported Cooperative Work*. Savannah, GA. 2010.

Reviewer. *CHI '10: ACM Conference on Human Factors in Computing Systems*. Atlanta, GA, USA. September 2009.

Reviewer. *IUI '10: International Conference on Intelligent User Interfaces 2010*. Hong Kong, China. September 2009.

Reviewer. *Scientific Studies of Virtual Communities: A Handbook of Research on Methods and Techniques for Studying Virtual Communities: Paradigms and Phenomena*. September 2009.

Student Conference Volunteer (SV). *CHI '09: ACM Conference on Human Factors in Computing Systems*. Boston, MA, USA. April 2009.

Workshop Chair. *First International Workshop on Trends in Pervasive and Ubiquitous Geotechnology and Geoinformation*. In conjunction with GIScience 2008. Park City, Utah. September 2008.

Program Committee Member. *First International Workshop on Location and the Web*. In conjunction with the 17th International World Wide Web Conference (WWW2008). Beijing, China. April 2008

Session Chair. *Semantic Similarity and Semantic Relatedness in Geography*. Annual Meeting of the Association of American Geographers 2008. Boston, MA. April, 2008.

Teaching Experience

Santa Barbara City College

Instructor of Record (Adjunct). *Introduction to GIS*. Spring Semester 2008.

University of California, Santa
Barbara

Instructor of Record (Adjunct). *Regional Geography of North America*. Spring Semester 2008.

Teaching Assistant. GEOG 115B: *Introduction to Remote Sensing*. Winter 2008.

Teaching Assistant. GEOG 176A: *Introduction to Geographic Information Systems*. Fall 2007.

Lab Author. Designed two labs for GEOG 176A course. Fall 2007.

Mentor. UCSB Research Mentorship Program. Mentored a high-achieving high school student while he assisted the Minotour project and learned research skills. Summer 2007.

Teaching Assistant. GEOG 210C: *Geostatistics (Graduate Level)*. Spring 2007.

Teaching Assistant. GEOG 5: *Introduction to Human Geography*. Spring 2006.

Guest Lecturer. "The Geography of Christian Rock". GEOG 5: *Introduction to Human Geography*. Fall 2005.

FIREWISE (St. Paul, MN)

Instructor. "Introduction to GIS and GPS". June 2005.

Macalester College

Guest Lecturer. "The Geography of Christian Rock". Undergraduate-level GEOG 111: *Human Geography of Global Issues*. Spring 2005.

Teaching Assistant. GEOG 378: *Discipline and Methods of Geography*. Spring 2005.

Teaching Assistant. GEOG 242: *Regional Geography of the United States and Canada*. Fall 2003 - Fall 2004.

Teaching Assistant. GEOG 365: *Advanced GIS*. Spring 2004 - Spring 2005.

Teaching Assistant. GEOG 225: *Introduction to GIS*. Fall 2003 - Fall 2004.

Professional Service

University of California, Santa
Barbara
Summer 2009

International Student Institute

Assisted new international graduate students in their acclimation to academia in the U.S. (and life in the U.S. in general).

University of California, Santa
Barbara
Spring 2006, Spring 2007

Volunteer Teaching Assistant

Took unpaid, "moonlighting" teaching assistant positions in Spring 2006 and Spring 2007 to help out an over-extended, under-funded geography department and to improve my teaching skills.

Macalester College
June 2005

Geography Department Candidate Selection Committee
Committee Member and Student Representative

Chosen by department chair to serve on committee to select first GIS lab instructor. Met with candidates to evaluate their qualifications and abilities

Macalester College
Feb. 2005 - May 2005

Geography Department Newsletter
Founder and Editor

Started the first-ever Macalester Geography Department newsletter. Organized, lead, and trained fellow students to write articles and help with the production of an 8-page average monthly publication.

Macalester College
Fall 2004

Geography Department Candidate Selection Committee
Committee Member and Student Representative

Elected by geography students to serve on the Geography Department search committee to select a candidate for a new GIS tenure-track position. Met with candidates to evaluate their qualifications and abilities. Organized student meetings with the candidates and met with students to discuss candidates. Represented student opinion on the committee

Newspapers and Other Media Coverage

ARD TV

CeBit New Technology Coverage. ARD TV. 2008.

Coverage of our WikEye project was featured on the German equivalent of "The Today Show".

Il Sole 24 Ore

Chittaro, L. Mixare Wikipedia e Google Earth con interfaccia stile iPhone *Il Sole 24 Ore*, Confidustria, Milan, 2008.

Coverage of our IUI 2008 paper was featured in a large Italian national daily newspaper.

Professional Affiliations

Association of American Geographers

Mar. 2004 - present

Association for the Advancement of Artificial Intelligence

Sept. 2007 - present

Upsilon Pi Epsilon (Computer Science Honors Society)

Inducted Mar. 2004

Association for Computing Machinery

Sept. 2008 - present

IEEE Computing Society
Sept. 2008 - present

Relevant Work Experience

The Mac Weekly
Fall 2004

Managing Editor

Ran day-to-day operations for Macalester College's newspaper

The Mac Weekly
Spring 2003 - Spring 2004

News Editor

Revitalized the news section and built a large news writing staff. Responsible for content, editing, layout, management

CNET
June 2000 - Jan. 2003
(Summer and Winter Holidays)

Intern

Programmer for audience development and marketing department. Designed automated Google/Overture advertisement bidding software

Community Involvement

Founder and Editor. Liberal Country Fan. 2006-2007. (www.liberalcountryfan.com). Wrote and edited articles about the fascinating intersection between country music and politics. Website received up to 5,000 articles daily, but I had to take it down following the 2006 elections, when research required too much of my time.

Volunteer. Isla Vista Youth Program, Goleta, CA, Jan - June 2006.

Volunteer. Lynwood Elementary School, St. Paul, MN, Jan - May 2003.

Technological Toolbox

Languages

Fluent in C++, Java, C, Objective-C, Visual Basic, MatLab, Scheme, REALbasic, AppleScript, Prolog, SQL, PHP, HTML, XML, C#, Processing

Platforms and Unique Datasets

iPhone API, Facebook API, Google Web Toolkit (GWT), Wikipedia data dumps, Windows Mobile (Native and Managed), Mac OS X, Microsoft .Net, US Census, KML specification, Shapefile specification, GeoTools, Lucene

Specialized Applications (Non-Trivial)

Fluent in ArcGIS, Photoshop, InDesign, Acrobat, Quark, ENVI, Imagine, Dreamweaver, WordPress, Eclipse, MySQL, JMP

Language Skills

Spanish (proficient)
German (limited)