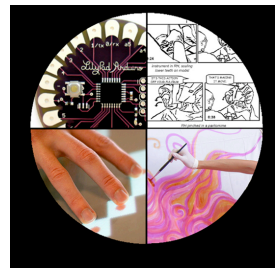


# Amaya Becvar

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## Summary

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Team-oriented ethnography-for-design Ph.D. seeks inspiring usability research position to begin in mid-September, 2008.

## Education

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**University of California, San Diego.** La Jolla, CA.  
Ph.D. in Cognitive Science, June, 2008, (GPA - 3.96)  
Dissertation: *An Ethnographic Investigation of the Evolving Dynamics of a Learning Ecology*  
Co-advisors: Dr. James Hollan and Dr. Edwin Hutchins

**University of California, San Diego.** La Jolla, CA.  
M.S. in Biochemistry, 2002, (GPA - 3.90)

**Amherst College.** Amherst, MA.  
B.A. in Chemistry, *magna cum laude*, 1997, (GPA - 3.70)

## Work Experience

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**Graduate Research Assistant**, Distributed Cognition and HCI Laboratory, University of California, San Diego. June 2002-present

- Investigated and designed digital pen technology used for field data collection by beluga whale ethologists.
- Collaborated on FTIR multitouch table design used for ethnographic video data analysis. Performed usability analysis of table design prototypes.
- Performed ethnographic investigations of professional training environments, such as a dental hygiene program and biochemistry laboratory.
- Designed a digital video system for clinical dental hygiene training in a local community college and evaluated its effects.
- Studied how biochemistry researchers use representational gestures to help thinking and collaboration.
- Attended weekly laboratory meetings and presented research updates on a regular basis.

**Writer and Editor**, Robo101.com, San Diego, CA. January 2008 - present

- Wrote weekly articles and edited all content of robotics fan site.

**Lecturer**, University of California, San Diego, CA. January 2008-June 2008

- Taught lower-division cognitive science course, *The Cognitive Consequences of Technology*.
- Created course content and assignments, lectured using Socratic method.
- Graded assignments and provided students with individualized tutoring help on complex course material.
- Managed two teaching assistants and 56 students.

**Clothing Engineer/Technician**, Enlighted Designs, Encinitas, CA. November 2005-present

- Crafted and engineered illuminated clothing for Dr. Janet Hansen's wearable computing company on a contract basis.
- Received training and experience in prototyping and designing costumes with embedded microcontrollers.

**Vice-president, Inventor, and Shareholder**, Becvar and Becvar, LLC, El Paso, Texas. June 2004-present.

- Entrepreneuried biotechnology company to oversee the intellectual property license from award-winning science fair project.

**User Experience Consultant**, Semantic Research, Inc., San Diego, California. 2000-2002

- Consulted on design and marketing strategies for semantic networking software.
- Specialized in science-related applications for education.

**Website Designer and Research Assistant**, San Diego State University, San Diego, California. 1998-1999

- Assisted with the development and testing of semantic networking software for biology education.
- Created content and designed biology education website.

**Educational Outreach Instructor**, Reuben H. Fleet Science Center, San Diego, CA. 1997-1998

- Designed traveling science exhibits and presented programs to elementary schools around San Diego County.

## Selected Skills and Techniques

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- **Social Science:** In-depth experience with both quantitative and qualitative social science research methods, such as ethnography, microethology, digital video analysis, gesture analysis, conversation analysis, discourse analysis, interviewing, autoconfrontation and surveying.
- **Design:** Highly proficient with design methodologies such as contextual interviewing, contextual design, participatory design, iterative and rapid prototyping, personas, affinity diagrams.
- **Computer:** Word processing, copyediting, spreadsheets, databases, graphic design and layout using Photoshop, InDesign, and Illustrator, digital video editing, HTML, Javascript, prototyping with Arduino microcontroller.
- **Leadership:** Exceptional communication, management, mentoring, writing, public speaking and organizational skills.

## Awards and Honors

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Cal(IT)<sup>2</sup> Graduate Research Fellowship sponsored by SPAWAR, Department of Naval Research, 2002-2006

Forris Jewett Moore Fellowship for Graduate Study, 2004

John Woodruff Simpson Fellowship for Graduate Study, 2003

John Woodruff Simpson Fellowship for Graduate Study, 2002

GAANN Fellowship, U.S. Department of Education, 1999-2002

Phi Beta Kappa, 1997  
Amherst College Class of 1956 Teaching Fellowship, 1997  
INTEL International Science and Engineering Fair Grand Prize Winner, 1992

## Publications and Patents

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**Becvar, L.A.** and Becvar, J. (2007) "Method and System for Creating Ink Art." *U.S. Patent Application # 20,080,092,308.*

**Becvar, L.A.,** Hollan, J., Hutchins, E. (2007) "Representational Gestures as Cognitive Artifacts for Developing Theory in a Scientific Laboratory." *Artifacts in Workplace Practice.* Kluwer Academic Publishers.

Becvar, J. and **Becvar, L.A.** (2006) "A System and Method for Creating Ink Art." *US Patent Pending.*

**Becvar, L.A.,** Hollan, J., Hutchins, E. (2005) "Hands as Molecules: Representational Gestures as Cognitive Artifacts for Developing Theory in a Scientific Laboratory." *Semiotica.* 156-1/4: 89-112.

Becvar, J. and **Becvar, L.A.** (2005) "Luminous Bacteria and Methods for the Isolation, Identification and Quantification of Toxicants, Continuation." *U.S. Pat. No. 6,673,563.*

**Becvar, L.A.** (2004) "Conceptual Structure in Chemical Equations: Embodied and Mathematical Metaphors." *Learning and Technology Research Portal.* [http://m1.cust.educ.ubc.ca:8200/learningandtecharticles/embodiedandmathmetaphors\\_Becvar2003.pdf](http://m1.cust.educ.ubc.ca:8200/learningandtecharticles/embodiedandmathmetaphors_Becvar2003.pdf)

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**Becvar, L.A.,** Wood, M., Prieto, J.H., Melacini, G., Komives, E.A. (2003) "NMR Structures Reveal How Oxidation Inactivates Thrombomodulin." *Biochemistry.* 42: 11932-11942.

**Becvar, L.A.** (2002) "Developing Conceptual Metaphors for Understanding Molecular Models in a Freshman Chemistry Lab." *Trends in Science Education Webzine.*

Becvar, J. and **Becvar, L.A.** (2002) "Kit for the Isolation, Identification and Quantitation of Toxicants." *U.S. Pat. No. 6,340,572.*

Kovacic, P.A. and Becvar, L.A. (2001) Mode of Action of Anti-Infective Agents: Focus on Oxidative Stress and Electron Transfer. *Current Opinion in Pharmaceutical Research.* 3(2): 143-167.

Becvar, J. and **Becvar, L.A.** (2000) "Luminous Bacteria and Methods for the Isolation, Identification and Quantitation of Toxicants." *U.S. Pat. No. 6,017,722.*

## Publications in Preparation:

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**Becvar, L.A.** "Transparency and Technology Appropriation: Social Impacts of a Video Blogging System for Clinical Instruction in Dental Hygiene." (submitted to *GROUP 2007 Papers*)

**Becvar, L.A.,** Hollan, J. "Transforming Collaborative Learning in Clinical Education with Video Blogging Technology." (for *Journal of Computer-Supported Collaborative Learning*)

**Becvar, L.A.** "Professional Perception and Expert Action: Embodied Practices in Clinical Training and Instruction." (for *Culture and Cognition*)

**Becvar, L.A.,** Poulos, T., Davis, M. "Video Blogging in Dental Hygiene Clinical Training." (for *Journal of Dental Education*)