

Joseph 'Jofish' Kaye
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Objective

**To use observation of people in their everyday lives
to help build, understand, and evaluate new technologies for everyday use.**

Approach

I combine user-centered iterative hardware and software design, careful ethnographic observation, and theoretical understandings drawn from human-computer interaction and science & technology studies.

Education

Cornell University: August 2003-Present Ithaca, NY
Ph.D, Information Science. Expected graduation August 2008.
Dissertation Title: Experience-focused HCI: Evaluation & Epistemology
Committee: Phoebe Sengers, Jeff Hancock, Michael Lynch and Kristina Höök
Research projects include the *Evaluation of Experience-focused HCI, Intimate Objects, Home Health, and Culturally Embedded Computing.*

Massachusetts Institute of Technology: August 1995-June 2001 Cambridge, MA
M.S. Media Arts & Sciences, June 2001. MIT Media Lab. McDonalds Fellow.
Thesis: Symbolic Olfactory Display
Committee: Michael Hawley, Hiroshi Ishii, Marc Canter, Peter Brown
Research: Olfactory information display; digital home and kitchen technologies.
Resident Researcher, Media Lab Europe, Dublin, Fall 2000

B.S. Brain and Cognitive Sciences. January 1999. Advisor: Steve Pinker
Primary and secondary school education: London, Paris, Singapore & Tokyo.

Professional Experience

Visiting Researcher, Microsoft Research Cambridge, UK. July-December 2006
Computer Mediated Living Group. Studied the evaluation of experience-focused HCI.
Methods included field studies, interviews, diary studies, and data visualization. Collaborated on projects including the *Whereabouts Clock*, an ambient tool for increasing awareness within a family, the *Ambient Ink Display*, resulting in a study of Tablet PC use, Pottering, a study of non-task-focused domestic experience, and the *Eggexperiment*, an evaluation of the experience of haptic output.

Intern, Intel Corporation, Portland, OR. Summer 2005
Domestic Design & Technology Research. Worked closely with Genevieve Bell to compile list and taxonomy of worldwide research efforts in smart/digital homes. Developed extensive annotated bibliography of domestic technology, and studied ethnic breakdown of technology use in the USA.

Research Assistant, Cornell University, Ithaca, NY. September 2004-July 2008
Culturally Embedded Computing Group. Managed undergraduate researchers, wrote and co-wrote papers, did ethnographies, evaluated technologies, wrote software in Python and C, built analog and digital electronics and did extensive archival and library research. **Also see Teaching section below.**

VP of Interface, Ambient Devices, Cambridge MA October 2002-March 2003
Design, SW/HW wireless development, researched patents and FCC regulations.

Founder/VP Hardware, Innovation Catalyst, Cambridge, MA. March 2002-October 2002
Planned startup strategy and business plan. Prototyped HW for location-aware cellphone interface for Motorola.

Research Manager/Assistant, MIT Media Laboratory,
Cambridge, MA

September 1999-October
2001

Counter Intelligence. Managed team of 3 undergraduates. Studied smart kitchen technologies. Started lead-user driven project exploring food consumption in cars with sponsor companies.
Personal Information Architecture. Researched future of kitchen & home. Collaborated to build working prototypes, supervised and mentored teams of 2-4 undergraduates, wrote papers. Co-founded Counter Intelligence group and planned long-term research plan, co-designed research lab/kitchen. Demos to sponsors and press.

Management Consultant, GEA Consulting, Cambridge MA /
Fabriano, Italy

January 1999-September
1999

Researched technologies for domestic appliances; strategy advice to Italian retail startup.

**Full-length
Refereed
Conference
Publications**

Brown, B. A. T., Taylor, A. S., Izadi, S., Sellen, A., **Kaye, J. 'J.'**, Eardley, E.: **Locating Family Values: A Field Trial of the Whereabouts Clock**. (Best Paper Nominee). *Proc. Ubicomp 2007*: 354-371.

Gaver, W., P. Sengers, T. Kerridge, **J.'J.' Kaye**, and J. Bowers (2007). **Enhancing Ubiquitous Computing with User Interpretation: Field Testing the Home Health Horoscope**. Full Paper, *Proc. CHI 2007*: 537-546.

Kaye, J. 'J.', Vertesi, J., Avery, S., Dafoe, A., David, S., Onaga, L., Rosero, I., and Pinch, T. **To Have and to Hold: Exploring the Personal Archive**. Full Paper, *Proc. CHI 2006*.

Sengers, P., Boehner, K., David, S., **Kaye, J. 'J.'** **Reflective Design**. Proceedings of the 4th Critical Computing conference, Aarhus, Denmark, 22-24 August 2005.

**Refereed
Journal
Publications**

Kaye, J. 'J.' and Sengers, P. **The Evolution of Evaluation**. Under review for *HCI*.

Bell, G., **Kaye, J. 'J.'** **Designing Technologies for Domestic Spaces: A Future Kitchen Manifesto**, *Gastronomica* 2(2) May 2002 p46-62.

Witzgall, B., **Kaye, J. 'J.'** **Context As Output**, *MIT Student J. of Planning* 2, Spring 2001.

**Short
Refereed
Conference
Publications**

Brown, L. and **Kaye, J. 'J.'** **Eggs-ploring the influence of material properties on haptic experience**. Poster, *Ext. Abs. HAID'07*.

Gaw, S., **Kaye, J. 'J.'** and Wood, K. **Screensaver for Note-Review**. Poster, *ESCSW'07*

Kaye, J. 'J.' **Evaluating Experience-focused HCI**. Doctoral Consortium, *Ext. Abs. CHI 2007*

Kaye, J. 'J.', Boehner, K., Laaksolahti, J., and Stähl, A. **Evaluating Experience-focused HCI**. SIG, *Ext. Abs. CHI 2007*

Wyche, S.P., Taylor, A., and **Kaye, J. 'J.'** **Pottering: A design-oriented investigation**. Experience Report, *Proc. CHI 2007*

Leshed, G., and **Kaye, J. 'J.'** **Understanding how bloggers feel: recognizing affect in blog posts**. Work-in-Progress *Ext. Abs. CHI 2006*

Kaye, J. 'J.' **I Just Clicked To Say I Love You: Rich Evaluations of Minimal Communication**. *alt.chi 2006*.

Brewer, J., **Kaye, J. 'J.'**, Williams, A., and Wyche, S. **Sexual Interactions: Why we should talk about sex in HCI**. Workshop Proposal, *Ext. Abs. CHI 2006*.

Kaye, J. 'J.', Levitt, M., Nevins, J., Golden, J., and Schmidt, V. **Communicating Intimacy One Bit at a Time**. Late-breaking Result, *Ext. Abs. CHI'05* 1529 - 1532.

Kaye, J. 'J.', and Goulding, L. **Intimate Objects** Interactive Poster, *Proc. DIS 2004* 341-344.

**Non-refereed
Journals &
Magazine
Articles**

Kaye, J. 'J.' **Horoscopes: Valuing the Irrational.** *Ambidextrous Magazine* 2(1) Spring 2007
Kaye, J. 'J.' **Making Scents: Aromatic Output for HCI.** Cover article, *interactions* 11(1) Jan+Feb 2004 48-61.
Sengers, P., **Kaye, J. 'J.'**, Boehner, K., Fairbank, J., Gay, G., Medynskiy, Y. and Wyche S. **Culturally Embedded Computing.** *Pervasive Computing*, 3(1) 2004.
Kaye, J. 'J.' **Computer Controlled Scent Output.** *Perfumer and Flavorist*, Nov/Dec 2003
Kaye, J., Matsakis, N. **Mr. Java.** *IEEE Computer Graphics & Applications* May 2000

**Book
Chapters**

Kaye, J. 'J.' LEGOs. In *Falling for Science: Objects in Mind*, S. Turkle, Ed. MIT Press, 2008.
Harper, R., Rodden, T., Rogers, Y., & Sellen, A. (2008). *Being Human: Human Computer Interaction in 2020*. Microsoft Research Cambridge. **Contributor.**
Brown, B., Taylor, A.S., Izadi, S., Sellen, S. and **Kaye, J. 'J.'** **Supporting Family Awareness with the Whereabouts Clock.** In *Awareness Systems*, P. Markopolous, Ed. Springer Velag, forthcoming.

**Workshop
Papers**

Kaye, J. 'J.' The practice of value-centered evaluation in design research. **CHI 2008 Workshop on Values, Value and Worth.** Florence, Italy, April 2008.
Kaye, J. 'J.' and Taylor, A. **What Does Science Know about Experience? Alternatives Approaches to Evaluating User Experience.** *NordiCHI 2006 Workshop: User Experience - Towards a unified view.* Oslo, Norway, October 2006.
Rode, J. and **Kaye, J. 'J.'** **Is to Nurture in Technology's Nature?** *UbiComp 2006 Workshop: Nurturing Technologies in the Domestic Environment: Feeling Comforted, Cared for, and Connected at Home.* Long Beach, CA, September 2006.
Kaye, J. 'J.' **Beyond Usability: Designing for Evaluating Experience** *DIS 2006 Workshop: Exploring the Interrelationships between the Design and Evaluation of Interactive Systems.* State College, PA, June 2006.
K. Boehner, S. David, **J. 'J.' Kaye**, and P. Sengers. **Critical Technical Practice as a Methodology for Values in Design.** *CHI 2005 Workshop on Quality, Values, Choices,* Portland, OR, March 2005.
Kaye, J. 'J.' **Intimate Objects: A site for affective evaluation.** *CHI 2005 Workshop: Innovative Approaches to Evaluating Affective Interfaces.* Portland, OR, March 2005.
P. Sengers, K. Boehner, G. Gay, **J. 'J.' Kaye**, M. Mateas, B.Gaver, and K. Höök. **Experience as Interpretation.** *CHI 2004 Workshop on Cross-Dressing and Boundary Crossing: Exploring Experience Methods Across the Disciplines.* Vienna, Austria, April 2004.
Kaye, J. 'J.' **Social Considerations in Ambient Healthcare Awareness,** *CHI 2003 Workshop: Designing Culturally Situated Technologies for the Home.*

Teaching

I teach with an emphasis on rapid prototyping, user-centered approaches, iterative design processes, group work and reflective design. I encourage group projects for real-world clients, who have included local organic farmers and community outreach projects. I care deeply about my teaching, and consistently receive high teaching evaluations from both students and faculty.

INFO/COMM.345 Intro to Human Computer Interaction.	Head TA.	<i>Spring 2008</i>
INFO/CS.130 Intro to Web Design & Programming.	Head TA.	<i>Fall 2007</i>
INFO/CS.230 Intro Design & Programming for the Web.	Joint Head TA.	<i>Spring 2007</i>
STS.356 Computing Culture.	Joint Head TA.	<i>Spring 2006</i>
INFO/CS.130 Intro to Web Design & Programming.	Head Teaching TA.	<i>Fall 2005</i>

Invited
Talks

- Evolving Evaluation from Engineers to Experience.** Stanford University Human-Computer Interaction Seminar, Stanford, CA. 22 April 2007.
- Expanding the Scope: Pushing the Boundaries of HCI.** CHI Mumbai, Mumbai, India. 19 March 2007.
- Expanding the Scope: Pushing the Boundaries of HCI.** Bangalore, India. 22 March 2007.
- Towards Experience-focused HCI.** Invited Talk, BostonCHI, MIT, Cambridge, MA, 16 March 2007.
- The Evolution of Evaluation.** Microsoft Research Cambridge, UK. 15 December 2006
- The Evolution of Evaluation: Learning from History as a Step Towards the Evaluation of Third Wave HCI.** University of Aarhus, Denmark. 29 November 2006
- Steps Towards a History of Ethnomethodology in HCI and CSCW.** Science & Technology Studies Unit, University of York, UK. 20 November 2006.
- Evolution of Evaluation in HCI.** York HCI Group Seminar, Department of Psychology, University of York, UK. 19 November 2006.
- Evolving Evaluation from Engineers to Experience: What History can Teach us About Evaluation in HCI.** GIST Seminar Series, University of Glasgow, UK. 16 November 2006.
- Evaluation in HCI Looking at the evolution of an interdisciplinary field.** Oxford e-Science Research Project, University of Oxford, UK. 15 November 2006.
- How We Got To Where We Are Today: Understanding the History of Evaluation in HCI.** Guest Seminar, IT Universitetet, Göteborg, Sweden, 6 October 2006.
- Evaluation in Experience-Focused HCI: Exploring the Virtual Intimate Object.** Future Applications Lab, Viktoria Institute, Göteborg, Sweden, 13 January 2006.
- Intimate Objects.** Invited Talk, Human Communication Technologies Laboratory, University of British Columbia, Vancouver, Canada. 6 January 2005
- Olfactory Display. Invited Survey,** UIST 2004, Santa Fe, NM. 26 October 2004.
- Future Kitchen Technologies** Campbell Soup Company, Camden, NJ, 1 October 2003
- Symbolic Olfactory Display,** Designing for the Senses, Smithsonian/Cooper-Hewitt & Rockefeller University, New York, NY, 3 May 2003
- My Grandmother Could Cook A Pasta Dinner In Seven Minutes Or Less With No Wasted Steps,** Smart Home Series, Intel Architecture Labs, Portland OR, 22 September 2001
- Computerized Symbolic Olfactory Display,** Xerox Parc, Stanford CA, 1 August 2001.
- Future Technologies & Practices Impacting The Home,** Information & The Urban Future, New York University, New York NY, 26 February 2001.
- Kitchen Directions,** Schott Glas, Mainz, Germany, 23 August 2000.
- Forget About Technology** Bluetooth: Future of Wireless, ICM, Washington DC, 14 July 2000.
- Technology for All,** Access to Information Technology, Reykjavik, Iceland, 22 February 2000.
- Technology in Future Kitchens,** Design & Technology, Hafele, San Francisco CA, 23 September 1999.

Research Presentations

Cornell Webclub, Cornell University, Ithaca, NY. 11 February 2007.

Finding the Self in Affective Computing. Society for the Social Studies of Science, Vancouver BC, Canada. 4 November 2006.

Evaluating Experience-Based HCI: the Virtual Intimate Object. Science Studies Research Group, Science & Technology Studies Department, Cornell University, Ithaca, NY. 13 March 2006.

The Logbook Probe: Facilitating auto-thick description for evaluation. Workshop on Innovative Approaches for Evaluating Affective Systems, Swedish Institute for Computer Science, Kista, Sweden. 9 January 2006

The Spiritual As Metric: Maximizing Karma for Touring Relics. Ethnographic Praxis in Industry Conference Microsoft Conference Center, Redmond, WA. 14 November 2005.

Exploring Technologies of Intimacy: Minimal Intimate Objects. Society for the Social Studies of Science, Pasadena, CA. 20 October 2005.

I Just Clicked To Say I Love You: Rich Evaluations of Minimal Communication. Paper Presentation, Less Is More Conference, Microsoft, Cambridge, UK. 27 April 2005.

Intimate Objects: Working at the Crossroads of Information Science. Information Science Seminar, Cornell University, Ithaca, NY. 13 April 2005.

Intimate Objects: A Site for Affective Evaluation. Novel Approaches to Evaluating Affective Interfaces. CHI 2005 Workshop, Portland, OR. 4 April 2005.

Intimate Objects: Open for Interpretation. Open Systems, Open STS: The MIT-RPI-Cornell STS Graduate Student Conference. Cornell University. 19 February 2005.

Technology & Relationships: Intimate Objects in S&TS & I/S. Social Sciences Reading Group, Cornell University, Ithaca, NY. 18 October 2004.

Archives & Identity: Social Sciences Reading Group, Cornell University, Ithaca, NY. 4 October 2004.

William H. Broughton: One Radio Ham. Society for the Social Study of Science (4S), Paris, France. 27 August 2004.

Intimate Objects: Communication Devices for Couples. Information Science Seminar, Cornell University, Ithaca, NY. 14 April 2004.

Writing a Machine: Technical Critical Practice. Under Construction VI - The MIT-RPI-Cornell STS Graduate Student Conference: A Heart-Shaped Black Box. Rensselaer Polytechnic Institute, Troy NY, 14 February 2004.

Computerized Symbolic Olfactory Display, Cornell SIGCHI Distinguished Lecturer Series, Cornell University, Ithaca NY, 8 October 2003

Professional Service

Co-Chair (with L. Barkhaus): alt.chi 2008.

Program Committees: NordiCHI 2008, DIS 2008, Multimedia Visualization 2004, 2005.

Workshop Co-Chair: J. Brewer, **J.'J'. Kaye**, A. Williams and S. Wyche. Sexual Interactions: Why we should talk about sex in HCI. CHI 2006 Workshop.

Workshop Co-Chair: **J. 'J'. Kaye** and G. Bell: Holy Hanging Out: Exploring Spirituality and Religion in the Corporate Environment. EPIC 2005 Workshop.

Conference Reviewing: CHI, DIS, CSCW 2004-2008, Ubicomp 2006-2008, DUX 2005, IEEE VR 2006, Pervasive 2006 Multimedia Visualization (M2Vis) 2004, 2005.

Editorial Review Board: International Journal of Technology and Human Interaction

Journal Reviewing: International Journal of Human-Computer Studies, International Journal

of Technology and Human Interaction, IEEE Intelligent Systems, Social Psychology Quarterly
Cornell SIGCHI: Chair, 2004-2007. Created and organized extremely popular 'Distinguished Lecturer Series', later 'Invited Lecture Series', bringing over 20 junior faculty and advanced graduate students to speak at Cornell.

Volunteering: Talks for Trumansberg Middle School Computer Club, multiple presentations to visiting high school students, Angiers Elementary, Newton MA (Annual visits 1998-2003).

Membership: Association for Computing Machinery (ACM), Special Interest Group in Human-Computer Interaction (SIGCHI), Society for the Social Studies of Science (4S)

Grants and Honors	Teaching Assistant Award , Department of Computer Science, Cornell University. <i>May 2006</i>
	Research Grant: Center for the Study of Long Distance Relationships. <i>2006</i>
	McDonalds Fellowship. Masters Degree sponsorship, MIT Media Lab. <i>2000-2001</i>

Selected Academic & Research Advising	Eugene Medynskiy <i>Currently Ph.D Student, Georgia Tech</i> <i>May 2006</i>
	Liz Goulding <i>Currently Analyst, Deloitte</i> <i>Fall 2003-Spring 2004</i>
	Daniel Bedard <i>Currently Senior Research Device Engineer, Renaissance Computing Institute</i> <i>Spring 2001</i>
	Junius Ho <i>Currently Product Manager, Telephony Applications, Palm, Inc.</i> <i>Fall 2000-Summer 2001</i>
	Tilke Judd <i>Currently Ph.D Student, CSAIL, MIT</i> <i>September 1999-Fall 2000</i>

Selected Media Coverage	<i>Love Tech Goes Long Distance.</i> Andy Greenberg, Forbes.com <i>February 6, 2008</i>
	<i>Computer to User - You Figure It Out.</i> Gary H. Anthes, Compuworld. <i>January 23, 2006</i>
	<i>Kitchens of the Future.</i> The Food Network <i>January 18, 2004</i>
	<i>The Infinite Mind: Sense of Smell.</i> National Public Radio <i>April 30, 2003</i>
	<i>Will the Kitchen Please Shut Up!</i> Richard Wolkomir, Smithsonian <i>September 1999</i>
	<i>In an M.I.T. Lab, the Future Cooks.</i> William Hamilton, New York Times <i>February 18, 1999</i>

Project Portfolio

Intimate Objects: Systems for long-distance couples to communicate intimacy

Ventus: The Intelligent Inhaler a embedded single-chip medical device with IR transmission

Home Health Horoscopes: Intel-sponsored ubiquitous computing project to measure the emotional climate of a home and produce horoscopes to encourage rich user interpretation.

Portable Personal User Interface: Prototype situation/location aware cellphone

Symbolic Olfactory Display: M.S. Thesis: information display using computer-controlled scent: complex abstract information display through aroma.

Counter Intelligence: explored technologies in the kitchen and home. Projects include:

- **Mr. Java:** coffee machine incorporating RFID to recognize users to automatically deliver their beverage and entertainment choices.
- **Robocrop:** A kitchen counter-sized automated hydroponic garden
- **PC Dinners: computerized microwave oven controlled by foods' UPC barcodes**
- **Food in Cars:** A lead-user-driven exploration of a problem space
- **Self-Cleaning Table:** A kitchen counter that clears itself using asymmetrical sound waves
- **Energy Fridge:** Embedded technology produce energy savings

Collaboration: **Wearable Fashion Computing** (front cover, US News & World Report)

Skills & Activities

Languages: Rusty conversational French and even rustier intermediate Japanese.

Research skills: Extensive experience in interviewing, ethnography and ethnographically-inspired research, open-ended surveys, cultural and technological probes, log and activity visualization, applied machine learning, internet community research and qualitative / quantitative research design and correlation.

Technical skills: Programming in Python, C, embedded C, prototyping analog & digital electronics. Experience with various embedded computers, Linux system administration, etc.

Theater: Extensive performances and directing of improv, actor-created & scripted theatre.

MIT Mystery Hunt 2003 - The Matrix: Joint creator of world's largest treasure hunt.

Personal

I am an enthusiastic supporter of local food, wine, and beers, and enjoy mobile photography, cooking, dancing, and hosting friends and family. I recently accidentally adopted a Maine Coon kitten called Annie.
