Curriculum Vitae

# Jochen "Jeff" Rick

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## Education

**2007** Georgia Institute of Technology (GT), College of Computing (CoC), Atlanta, GA. *Ph.D. (Computer Science).*

AREA Learning Sciences and Technology
DISSERTATION Personal home pages in academia: The medium, its adopters, and their practices
COMMITTEE Mark Guzdial (chair), Marina Bers (Tufts University), Amy S. Bruckman, Janet L. Kolodner, Elizabeth D. Mynatt
MINOR Management

**1999** GT, School of Electrical and Computer Engineering (ECE). *M.S. (Electrical Engineering).* 3.70 GPA.

Digital Signal Processing, Microelectronics, Computer Engineering, Global Innovation for Engineers

**1997** GT, ECE. *B.E.E.* (Bachelor of Electrical Engineering). 3.54 GPA. With High Honor, Cooperative Plan.

Computer Engineering Specialization, Certificate in Economics

## Employment

*Faculty Positions*

**Fall10–present** Saarland University, Dept. of Educational Technology. *Assistant Professor (German Equivalent).* Worked with Armin Weinberger to create a research agenda for the new department and create a curriculum for a Masters of Educational Technology.

*Research Positions*[1]

**Fall07–Summer10** The Open University (OU), Dept. of Computing. *Research Fellow*. Worked on the ShareIT Project, led by Sheep Dalton (OU), Yvonne Rogers (OU), and Nicola Yuill (Dept. of Psychology, University of Sussex), to investigate shareable interfaces to support co-located collaboration between both children and adults.

**Spring00–Summer05** GT, CoC. *Graduate Research Assistant*. Worked with Mark Guzdial on various research projects, including:

[1] When time-frames below overlap, it is the research position that was interrupted.

Funded by NSF and the Mellon Foundation, we developed, supported, and researched the use of collaborative websites to support learning in various classes (Mathematics, Engineering, English Composition, etc.) at GT.

Funded by an NSF ITR grant, we worked together with other learning scientists (at Northwestern, Michigan, and UIC) to support the integration of educational technologies into software suites. Our role was to provide support for collaboration.

**Fall99** GT, ECE. *Graduate Research Assistant*. Worked with James H. McClellan to create collaborative website on Matlab.

**Spring98–Summer99** GT, GVU Center. *Graduate Research Assistant*. As part of GVU's industrial affiliates program, worked with Siemens, Germany, on information systems.

*Teaching Positions*

**Fall06** GT, CoC. *Teaching Assistant*. Introduction to Educational Technology (n=15).

**Fall05–Summer06** GT, CoC. *Instructor*. Objects and Design (n=120, n=70, n=45). Lectured, developed new course content, created assignments, and had course ownership responsibilities, such as managing the teaching assistants.

**Fall02** GT, CoC. *Instructor*. Introduction to Educational Technology (n=30). Developed new syllabus, lectures, and assignments.

**Fall97–Winter98** GT, ECE. *Teaching Assistant*. Digital Interfacing. As a laboratory TA, supervised and supported students in interfacing digital circuits.

**Winter96** GT, CoC. *Teaching Assistant*. Introduction to Computing. Presented recitation lectures, graded student work, and oversaw laboratory sections.

*Internships*

**Summer00** Viant Inc., Research Group, Boston, MA. *Intern*. Worked with Tim Andrews, CTO, to support on-line collaboration at Viant.

**Summer98–Fall98** Siemens, GmBH, Research and Development, Germany. *Graduate Cooperative Student*. Worked with researchers on an operation and information distribution system.

**Fall94–Spring97** Georgia Power Co., Plant Yates, Engineering Department, Newnan, GA. *Cooperative Student*. Every other quarter. Worked with engineers to support power plant operations.

## Publications / Involvement

*Journal Articles*

1. Rick, J., Rogers, Y., Haig, C., and Yuill, N. (2009). Learning by doing with shareable interfaces. *Children, Youth and Environments*, 19(1):321–342.
2. Rick, J. and Guzdial, M. (2006). Situating CoWeb: A scholarship of application. *International Journal of Computer-Supported Collaborative Learning*, 1:89–115.
3. Zagal, J.P., Rick, J. and Hsi, I. (2006). Collaborative games: Lessons learned from boardgames. *Simulation & Gaming*, 37:24–40.

4. Rick, J. and Lamberty, K.K. (2005). Medium-based design: Extending a medium to create an exploratory learning environment. *Interactive Learning Environments*, 13(3):179–212.
5. Guzdial, M., Rick, J. and Kehoe, C. (2001). Beyond adoption to invention: Teacher-created collaborative activities in higher education. *The Journal of the Learning Sciences*, 10(3):265–279.

*Conference Papers (full)*

1. Rick, J., Marshall, P., and Yuill, N. (31% acceptance rate.) (2011). Beyond one-size-fits-all: How interactive tabletops support collaborative learning. In *Proceedings of IDC 2011*, pages 109–117. ACM Press.
2. Rick, J. (18% acceptance rate.) (2010). Performance optimizations of virtual keyboards for stroke-based text entry on a touch-based tabletop. In *Proceedings of UIST 2010*, pages 77–86. ACM Press.
3. Rick, J., Francois, P., Fields, B., Fleck, R., Yuill, N. and Carr, A. (35% acceptance rate.) (2010). Lo-fi prototyping to design interactive-tabletop applications for children. In *Proceedings of IDC 2010*, pages 138–146. ACM Press.
4. Fleck, R., Rogers, Y., Yuill, N., Marshall, P., Carr, A., Rick, J. and Bonnett, V. (2009). Actions speak loudly with words: Unpacking collaboration around the table. In *Proceedings of ITS '09*, pages 189–196. ACM Press.
5. Harris, A., Rick, J., Bonnett, V., Yuill, N., Fleck, R., Marshall, P. and Rogers, Y. (2009). Around the table: Are multiple-touch surfaces better than single-touch for children's collaborative interactions? In *Proceedings of CSCL '09*, pages 335–344. ISLS.
6. Rick, J., Harris, A., Marshall, P., Fleck, R., Yuill, N. and Rogers, Y. (32% acceptance rate.) (2009). Children designing together on a multi-touch tabletop: An analysis of spatial orientation and user interactions. In *Proceedings of IDC '09*, pages 106–114. ACM Press.
7. Rick, J. and Rogers, Y. (27% acceptance rate.) (2008). From DigiQuilt to DigiTile: Adapting educational technology to a multi-touch table. In *Proceedings of TABLETOP '08*, pages 79–86. IEEE Computer Society.
8. Rick, J. (50% acceptance rate.) (2007). AniAniWeb: A wiki approach to personal home pages. In *Proceedings of WikiSym '07*. ACM Press.
9. Rick, J., Guzdial, M., Carroll, K., Holloway-Attaway, L. and Walker, B. (19% acceptance rate.) (2002). Collaborative learning at low cost: CoWeb use in English composition. In *Proceedings of CSCL 2002*, pages 435–442. ISLS.
10. Guzdial, M., Rick, J. and Kerimbaev, B. (18% acceptance rate.) (2000). Recognizing and supporting roles in CSCW. In *Proceedings of CSCW 2000*, pages 261–268. ACM Press.
11. Craig, D. L., Haq, S., Khan, S., Zimring, C., Kehoe, C., Rick, J. and Guzdial, M. (36% acceptance rate.) (2000). Using an unstructured collaboration tool to support peer interaction in large college classes. In *Proceedings ICLS 2000*, pages 178–184. Lawrence Erlbaum Associates.

*Conference Papers (short)*

1. McCrindle, C., Hornecker, E., Lingnau, A. and Rick, J. (2011). The design of t-vote: A tangible tabletop application supporting children's decision making. In *Proceedings of IDC 2011*, pages 181–184. ACM Press.
2. Rick, J. (2010). Quadratic: Manipulating algebraic expressions on an interactive tabletop. In *Proceedings of IDC 2010*, pages 304–307. ACM Press.
3. Marshall, P., Fleck, R., Harris, A. Rick, J., Hornecker, E., Rogers, Y., Yuill, N. and Dalton, N. S. (2009). Fighting for control: Children's embodied interactions when using physical and digital representations. In *Proceedings of CHI '09*, pages 2149–2152. ACM Press.

4. Rick, J. and Guzdial, M. (2004). Improving personal home pages to support learning as becoming and belonging. In *Proceedings of ICLS '04*, page 631. ISLS.
5. Rick, J. and Lamberty, K.K. (2004). Medium-based design: Supporting bricoleur designers. In *Proceedings of ICLS '04*, page 630. ISLS.
6. Rick, J. (2002). AudioExplorer: Multiple linked representations for convergence. In *Proceedings of CSCL '02*, pages 535–536. ISLS.
7. Rick, J. (2002). Pianos, not orchestras. In *Proceedings of CSCL '02*, pages 635–636. ISLS.

*Workshop Papers*

1. Rick, J. (2011). Teaching the design and development of educational technology. Position paper for "Teaching Interaction-Design & Children" workshop, *IDC 2011*, Ann Arbor, MI.
2. Yuill, N., Rogers, Y. and Rick, J. (2011). Pass the iPad: Comparing collaboration on paper and screen. Position paper for "Next Generation of HCI and Education" workshop, *CHI 2011*, Vancouver.
3. Rick, J. (2011). Collaborating across multiple linked representations. Position paper for "Multiple Perspectives on Multiple Representations (MUPEMURE)" workshop, *STELLAR Alpine Rendez-Vous 2011*. Massif des Aravis, France.
4. Rick, J. (2010). Six applications for interactive tabletops. Position paper for "Collaborative Learning with Interactive Surfaces: An Interdisciplinary Agenda" workshop, *ICLS 2010*, Chicago, IL.
5. Rick, J. and Marshall, P. (2010). Towards a constructivist pedagogy in the ubicomp classroom. Position paper for "Next Generation of HCI and Education Workshop" workshop, *CHI 2010*, Atlanta, GA.
6. Yuill, N., Harris, A., Bonnett, V., Rick, J., Fleck, R., Marshall, P. and Rogers, Y. (2009). The 'I did it!' bias in multi-touch tabletops: When equity is not enough. Position paper for "Tabletops for Education and Training" workshop, *STELLAR Alpine Rendez-Vous 2009*. Garmisch-Partenkirchen, Germany.
7. Rick, J. (2009). Towards a classroom ecology of devices: Interfaces for collaborative scripts. In *Workshop Proceedings of CSCL '09*, "Scripted vs. free CS collaboration: Alternatives and paths for adaptable and flexible CS scripted collaboration", pages 8–12, Rhodes, Greece.
8. Rick, J., Dalton, S., Hornecker, E., Marshall, P., Pantidi, N., Morris, R., Rogers, Y., Farr, W., Fleck, R., Harris, A., and Yuill, N. (2008). Tabletop computing as educational technology. *Shareable Interfaces for Learning Workshop 2008*, Brighton, UK.
9. Rick, J. (2001). Understanding children's programming as poor learning environments. Children's Programming Odyssey Special Event, *ACM HCC 2001*, Stresa, Italy.
10. Rick, J. (1999). Functions to features, features to functions, repeat. Position paper to "Knowledge Building Environments" workshop, *CSCL '99*, Palo Alto, CA.

*Technical Reports*

1. Rick, J. (2001). AudioExplorer: Multiple linked representations for convergence. *GVU Technical Report GIT-GVU-01-15*.

*Workshops Organized*

1. Evans, M. A. and Rick, J. (2010). Collaborative learning with interactive surfaces: An interdisciplinary agenda. In *Proceedings of ICLS 2010*, pages 505–506, ISLS: Chicago, IL.
2. Rick, J. (2009). *Children and Interactive Surfaces, UK* Meeting, Milton Keynes, UK.
3. Guzdial, M. and Rick, J. (2002). Installing and using collaborative websites. *CSCL 2002 Workshop*, Boulder, CO.

*Demonstration / Presentations*

1. Fleck, R., Yuill, N., Bonnett, V., Rick, J., Marshall, P. and Rogers, Y. (2010). Mysteries of collaboration: Supporting family collaboration with shareable technology. Presented at the *BPS Developmental Section* conference, Goldsmith's College, London.
2. Rick, J. (2009). Using interactive tabletops to support collaborative learning. Talk presented at *Ubiquitous Learning Conference 2009*, Boston, MA.
3. Rick, J. (2009). ShareIT DiamondTouch. Demonstration at *Surface Tension*, Dana Centre, London Science Museum, London, UK.
4. Harris, A., Yuill, N., Marshall, P., Fleck, R., Rick, J. and Rogers, Y. (2009). Using novel technology to support children's collaborative interaction during a planning task. Talk presented at *The Society for Research in Child Development Biennial Meeting 2009*, Denver, CO.
5. Harris, A., Bonnett, V., Fleck, R., Yuill, N., Marshall, P., Rick, J., and Rogers, Y. (2008). The role of multiple versus single touch input on children's collaborative participation. Poster presented at the *BPS Education Section* conference, Milton Keynes, UK.
6. Rick, J. (2006). Squeak: Making programming available to everyone. *Gamescapes For Learning Symposium*, Atlanta, GA.
7. Rick, J. (2002). Supporting collaborative learning at Georgia Tech. *CEUTT Meeting*, Evanston, IL.
8. Rick, J. (2001). Squeak at Georgia Tech. *ACM ACM1 Demonstration / Presentation*, San Jose, CA.
9. Rick, J. and Guzdial, M. (2000). Collaborative websites. *ACM CSCW 2000 Demonstration / Poster*, Philadelphia, PA.

*Reviewer*

IJHCS *International Journal of Human Computer Studies*. Guest editor for special issues on "Multitouch Systems" 2011.

JLS *Journal of the Learning Sciences*. 2001–present.

ijCSCL *International Journal of Computer-Supported Collaborative Learning*. 2005–present.

IDC *Interaction Design and Children.* Program Committee: 2010, 2011.

ICLS *International Conference of the Learning Sciences.* 2004, 2006, 2010.

CSCL *Computer-Supported Collaborative Learning*. 2002, 2005, 2009. Program Committee: 2011.

CSCW *Computer Supported Cooperative Work.* 2009.

CHI *Human Factors in Computing*. 2008, 2009, 2010.

## Grants

1. Rick, J., Weinberger, A., Smørdal, O., Pierroux, P., Adams, A., Hatch, A., Mercier, E., Subramanian, S., Cater, K., and Slotta, J. (2011). Multiple Surfaces for Collaborative Learning. *2011–12 STELLAR Theme Team*.

## Undergraduate Research Supervised

2006 Timmy Douglas extended Squeak, a Smalltalk variant, to handle multiple dispatch. He implemented multiple dispatch, explored syntax interface for it, and created a sample application. Andrew Sayman added the ability to annotate images to the Swiki system through a Java applet.

2005 Andrew Sayman and Kevin Webb designed and implemented a more usable interface for the Swiki administrator system.

## Software

**MultiDraw** Rick, J. (2010). Groups of four play the "picture consequences" party game together using individual iPads.

**Caper** Rick, J. and Fleck, R. (2009). Groups of three work together to solve a mystery using an interactive tabletop and handheld devices. Players receive clues on their respective handhelds and integrate their insights into a joint concept map on the interactive tabletop.

**TransTime** Francois, P., Rick, J., and Fields, B. (2009). A puzzle for children to explore different notions of how time progresses on an interactive tabletop.

**OurSpace** Rick, J. and Fleck, R. (2008). A classroom seating-allocation program used on an interactive tabletop.

**DigiTile** Rick, J. (2008). A port of Lamberty's DigiQuilt to an interactive tabletop.

**AniAniWeb** Rick, J. (2002). A server-based application for designing personal home pages.

**AudioExplorer** Rick, J. (2000). An application for exploring the physics of sound and music.

**CoWeb/Swiki** Rick, J. et al. (Rick is the primary architect.) (1999). A served-based wiki application for creating collaborative websites.

CoWebs have been used in over 300 classes at Georgia Tech and has a strong presence at other universities. A recent Google search on "swiki" produced over one million pages. CoWeb work has received two awards:

2001 Teaching and Learning Technologies for Rhetoric and Writing (for CoWeb use in English; award shared jointly with Lissa Holloway-Attaway, Literature Communications and Technology). *McGraw-Hill Technology Design Competition*. Computers and Writing Conference.

1999 Education Honors Award (for CoWeb use in Architecture). *American Institute of Architects*.