MATTHEW BETHANCOURT
matt@mouseandthebillionaire.com / mouseandthebillionaire.com

PROFESSIONAL EXPERIENCE

May 2016 – Present	Director, Technology, Arts and Media (TAM) program, ATLAS, CU Boulder, CO Overseeing curriculum development, course design, and overall experience for majors, minor and certificate students studying Technology, Arts and Media.
Aug. 2015 – Present	Instructor, Technology Arts and Media (TAM) program, ATLAS, CU Boulder, CO Development and teaching classes on game design, sound synthesis, sound design, prototyping, and the iterative design process.
Jan. 2012 – Aug. 2015	Assistant professor, Media Design Programs, CUNY Hostos, New York, NY Developed Game Design curriculum to teach students programming, game design fundamentals, and to explore gaming's effect on culture.
Jan. 2010 – Dec. 2012	Adjunct assistant professor, Media Design Programs, CUNY Hostos, New York, NY Instructed students in Sound Design, Sound Synthesis, MIDI-based music production, Game Design and UI/UX Design.
Jan. 2012 – Dec. 2012	Adjunct lecturer, MFA Design and Technology, Parsons The New School for Design, New York, NY Taught Max/MSP for musical application, installation, and live performance.
August 2008	Instructor, Parsons The New School for Design, Boot Camp, New York, NY Taught fundamentals of code to incoming students in the MFA program for Design and Technology. The intensive three week program covered basic coding standards and practices.
Feb. 2006 – July 2007	Web Developer / Administrator, Art Center College of Design, Pasadena, CA Oversaw the launch of the Alumni Department website, including a social networking platform and content management system all integrated to an existing database infrastructure.
Sept. 2004 – July 2007	Freelance Web Designer / Developer, Pasadena, CA Partnered with clients to define their messaging and developed standards based sites for target audiences.
May 2002 – Sept. 2004	Musician, The Red West represented by Atlantic Records, Los Angeles, CA Produced two albums in collaboration with band members and performed in nationwide tours.

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EDUCATION

May 2009 Master of Fine Arts, Design and Technology, Computation emphasis, High Honors, 3.92 GPA, Parsons The New School For Design

May 2002 Bachelor of Arts, Motion Picture Production major, Graphic Design minor, Magna cum laude, Biola University, La Mirada, California

May 2002 Torrey Honors Institute - Modeled on the Oxbridge tutorial system, course of study that focuses on critical thinking skills through Socratic analysis of classical texts.

SELECT WORKS

June 2016 “Weather,” 2016 CoSiMa Sonar Innovation Challenge @ Sonar+D, Barcelona, Spain

Mar. 2016 “Box/Woods”, 2016 SEAMUS Conference, Georgia Southern University, Statesboro, GA

Oct. 2015 “The Meeting”, generative music ‘game’ for iOS

May. 2015 “RePlay”, audio-visual sound installation based on video game data. Bronx, NY

Jun. 2014 “nY-Station”, *2014 International Conference for Auditory Display.* New York, NY

Mar. 2014 “zipCoda”, *2014 SEAMUS Conference.* Wesleyan University, Middlebury, CT

Sept. 2013 “zipCoda,” *2013 Dumbo Arts Festival*. Brooklyn, NY

June 2012 “The Sound of the Discussion of Sounds,” *2012 International Conference for Auditory Display.* Atlanta, GA

May 2009 “The Gesture-Control Exploration,” *Parsons MFADT Thesis Symposium.* New York, NY

RELATED SKILLS

Programs: Max/MSP, Ableton Live, Pro Tools, Logic, Reason, Final Cut Pro, Adobe Creative Suite, Unity, GameMaker, Arduino, Processing, OpenFrameworks

Languages: JavaScript, Python, C#, C++, HTML5, CSS3, PHP/MySQL

CHRISTOPHER M. **CARRUTH, MS-ICTD**

cmc@chriscarruth.com | 719.209.1224 | www.chriscarruth.com

EDUCATION

- BS, Business Administration, Information Systems. University of Colorado. 2006
- MS, Information & Communication Technology for Development. University of Colorado. 2013

PROFESSIONAL EXPERIENCE

- Instructor, ATLAS Institute, University of Colorado, Boulder. 2013 - Present
- Founder and Lead Facilitator, The Vox Project. 2013 - Present
- Participatory Media and Development Consultant, The Visionaria Network. 2013 - Present
- Editorial, Fine Art, and Commercial Photographer. 2011 - Present
- Regional Assistant Manager, National Center for Women and Information Technology. 2013 - 2014
- Graduate Research Assistant, National Center for Women and Information Technology. 2011 - 2013
- Director of Info Technology, University of Colorado, Colo Spgs, College of Business. 2006- 2010
- ESL Instructor, Hansaem Foreign Language Institute, Masan, Gyeonsangnam-do, South Korea. 2006
- Technical Lead, University of Colorado, Colorado Springs, College of Business. 2004 - 2006

EDUCATIONAL QUALIFICATIONS

- Redesign and instruction of introductory courses for the Technology, Arts, and Media Program. Strong focus on flipping the classroom and personalizing the student experience.
    - ATLS 2000 - Meaning of Information Technology // Sole instructor as of Fall 2014; ~20 sections.
    - ATLS 2100 - Image // Fall 2015 - Spring 2016; 3 sections.
    - ATLS 3529 - Remix: Culture, Concept, and Practice - Fall 2017; 1 section.
    - Curricula and presentation style of courses geared towards the needs of diverse audiences and embracing of universal design principles which allows for an in inclusive classroom regardless of language abilities, cultural background, gender, age, race, ability, etc.
    - Ongoing formative and summative assessments of students to improve teaching and learning.
    - Mentoring of multiple students on research and creative projects related to TAM program.
    - Contribution during faculty meetings and peer-reviews, particularly as the topics related to active learning, online engagement, and instructional design.
- Founder and Lead Facilitator: The Vox Project (thevoxproject.com). The VOX Project is a nonprofit organization that leverages human-centered design principles and the power of participatory engagement to create an

affordable, accessible, platform for agency-based empowerment. Through digital arts, we work with underrepresented groups to build technical and practical skills.

- *Developing Perspectives.* Participatory Photography with S. Sudanese Refugees. Boulder, CO.
- *Hands-up, no hands-out.* Participatory Media with Attention Homes, Youth Shelter. Boulder, CO.
- *Las Visionarias.* Participatory Media in conjunction with 501c3 Visionaria Peru (Sacred Valley of Peru). Grant funded through Rotary International from 2013 - 2017.
- *TRY.* Participatory photography in partnership with Utah Workforce Services. Salt Lake City, UT.
- *Nuestra Perspectiva.* Participatory Media with Latinas in Boulder HS. Boulder, CO.

- Instructor at the Boulder County Jail for a 4-week cyclical Digital Literacy course. Boulder, CO.
- ESL Instructor: Hansaem Foreign Language Institute in Masan, South Korea, 2006.
- TA/Instructor: Info Systems 110 Lab: Basic Computing Concepts, 2004-2006. TA of the Year, 2005.
- Numerous workshops & guest lectures in various subjects including Student Engagement, AI & Automation, Image Glitching,, Digital Literacy & Divides, & Media Critiques through a Feminist lens.
- Ongoing research into gender and racial inequality as it relates to recruitment, retention, and promotion across academic and career spaces, but specifically within STEM majors and fields. Collection of primary data through semi-structured interviews, ethnographic studies, web surveys, and analysis of secondary data sources. Results quantitatively and qualitatively coded using nVivo.

TECHNOLOGICAL QUALIFICATIONS

- Designed, maintained, and trained staff/faculty on learning management systems, leading to an increase in online educational efficacy as evidenced by peer and student evaluations.
- Designed for online content in both synchronous and asynchronous courses, including development of content flow via storyboards. Experience with new course creation and course migration. Specific LMS familiarity includes Moodle, Sakai, Angel, D2L, Blackboard, Edmodo, eCollege, and Joomla.
- Collaborated with departments and subject matter experts to identify problem/opportunity areas in distance and campus technology usage. Outcomes included workshops and individualized sessions with faculty/staff, web-based “how-to” videos, regular podcast series on academic technology with complimentary newsletters and online feedback forums. This research allowed for new campus communities to form around educational technologies while strengthening existing partnerships.

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- Project Management of instructional technology roll-outs including needs assessment, prototyping, wire-framing, installation, training, and monitoring and evaluation. Technologies included video and audio capturing, Google Apps, Qualtrics, TurnItIn, as well as iClicker and Polling technologies.
- Personnel Management of support team comprised of student coders, technicians, and multimedia designers. 99% ticket success rate with extremely high response time and "customer" satisfaction.
- Extensive knowledge of web/graphic design including HTML 4/5, CSS 2/3, PHP, Adobe CC.
- Current knowledge of new technologies, research, and methodologies through participation with industry leaders and conferences including ACM-CHI, Grace Hopper, Educause, COLTT, FTEP, GTP.
- Increased focus on multimedia tech to visualize & "storify" data in an effort to engage.
- 10+ years experience in supporting desktop, server, mobile, and tablet hardware in a mixed OS environment (Client/Server: Microsoft, Apple and Linux. iOS and Android on mobile).

SELECT SHOWS, AWARDS, GRANTS, PROJECTS, AND PUBLICATIONS

2017

- *Print/Web article, "The Visionaries" / CU Arts and Sciences Magazine / Boulder, CO*
- *L*isted in 8th in "*CU Engineering's Top 20 Teachers*" based on average instructor rating, average course rating, and number of students per class.
- Presentation titled, "*Your Lecture Slides Suck…How to Engage Students*" accepted at the annual Colorado Learning and Teaching with Technology (COLTT) Conference.

2016

- *Exhibition of Visionaria Photography / Las Cruces Branigan Cultural Center / Las Cruces, NM / Group*
- *Print/Web article, "The Visionaries" / August Issue of The Rotarian*
- *Student exhibition: Nuestra Perspectiva / Boulder, CO*
- *Helping Hands Humanitarian Award / Brush Rotary Club (or Nuestra Perspectiva)*
- *Visionarias (editorial photography), Arts & Sciences Print Quarterly / CU, Boulder*
- *Visionarias, empoderando mujeres para el cambio (editorial photography) / Amaray Magazine*

2015

- *Visionarias photo exhibition (group),* Branigan Cultural Center / Las Cruces, NM
- *Local Rotary Grant for Nuestra Perspectiva*, 6 week digital literacy project, Boulder HS / Boulder, CO
- *Inmate course: Intro to Digital Literacy*, Ongoing course at Boulder County Jail / Boulder, CO

CHRISTOPHER M. **CARRUTH, MS-ICTD**

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- *Visionarias,* photo essay, Photographers without Borders dot com
- *Empowered,* Rotary International Photo Award
- *Crescent Arch,* Online photo gallery award, Nature Conservancy dot com
- *Presentation on Image Glitching*, Digital Frontiers Photo Club / Boulder, CO
- *Presentation on AI and Automation: Our brave new digital age /* Golden, CO
- *Humanitarian Award*, Boulder Rotary Club / Boulder, CO

2014

- *Visionarias photo exhibition (solo),* ATLAS Institute / Boulder, CO
- *Visionarias photo exhibition (solo),* Boulder Digital Arts/ Boulder, CO
- *2-week participatory methodologies workshop for The Visionaria Network* / Urubamba, Peru
- *2-day intensive participatory photography workshop,* Utah Workforce Services / Salt Lake City, UT
- *4-week participatory photo workshop: Hands-up, not a hand-out,* Attention Homes / Boulder, CO
- *The Visionarias photo essay, staff featured by exposure.com*
- *Guest Presentation: How to make your photography suck less,* Journalism course, Nils Michals
- *Guest Presentation: Digital Divides and ICT4D,* Intro to Comp Sci, Kara Behnke
- *Presentation to Boulder Rotary Club: Development done right* / Boulder, CO

2013

- *4-week participatory methodologies workshop for The Visionaria Network* / Urubamba, Peru
- *Guest Presentation: How to make your photography suck less,* Journalism course, Nils Michals
- *Photovoice Facilitation Training Certificate*, Photovoice UK / London, U.K.
- *Scholarship to attend week-long Photography at the Summit,* Clarkson, Inc / Jackson Hole, WY
- *Photovoice project: Developing Perspectives (S. Sudanese Refugees), /* Boulder, CO
- *Multimedia Scholarship to attend 4-day workshop*, Clarkson, Inc / Denver, CO

INTERESTS

Trail Running & Abstract Painting & Creative Writing & Experimental Psychology & Home Gardens & Linguistic Determinism & Cosmologies & Travel & Human-Computer Interactions & Performance Art & Making friends with animals at parties & Photography as a meditation on life & of course, ampersands.

Laura Devendorf

ATLAS Institute & Department of Information Science
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University of Colorado Boulder
1125 18th St. 320 UCB
Boulder CO 80309

email: laura.devendorf@colorado.edu
web: artfordorks.com
phone: 303.735.4608

EDUCATION

2016 **University of California, Berkeley**
PhD, School of Information with designated emphasis in New Media
Dissertation: Strange and Unstable Fabrication
Committee: Kimiko Ryokai (chair), Jenna Burrell, Rosemary Joyce

2011 **University of California, Santa Barbara**
BS, Computer Science, Honors
courses: data visualization, cryptography, programming languages.

2006 **University of California, Santa Barbara**
BA, Studio Art, Honors
courses: visual literacy, advanced drawing, and print making.

PUBLICATIONS

Refereed Conference Papers

Laura Devendorf and Daniela K. Rosner. 2017. "Beyond Hybrids: Metaphors and Margins in Design." In *Proceedings of the 2017 Conference on Designing Interactive Systems* (DIS '17). ACM, New York, NY, USA, 995-1000.

Laura Devendorf, Abigail De Kosnik, Kate Mattingly, Kimiko Ryokai. 2016. "Probing the Potential of Post-Anthropocentric 3D Printing." In *Proceedings of the 2016 Conference on Designing Interactive Systems* (DIS '16). ACM, New York, NY, USA, 170-181. **Best Paper Award**

Noura Howell, Laura Devendorf, Rundong Tian, Tomas Vega, Nan-Wei Gong, Ivan Poupyrev, Eric Paulos, Kimiko Ryokai. 2016. "Biosignals as Social Cues." In *Proceedings of the 2016 Conference on Designing Interactive Systems* (DIS '16). ACM, New York, NY, USA, 865-870.

Laura Devendorf, Joanne Lo, Noura Howell, Doris Lee, Nan-Wei Gong, Emre Karagozler, Ivan Popuyrev, Eric Paulos, Kimiko Ryokai. "'I Don't Want to Wear a Screen': Probing Perceptions of and Possibilities for Dynamic Displays on Clothing." In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (CHI '16). ACM, New York, NY, USA, 6028-6039. **Best Paper Award**

Laura Devendorf and Kimiko Ryokai. "Being the Machine: Reconfiguring Agency and Control in Hybrid Fabrication." In *Proceedings of the 2015 CHI Conference on Human Factors in Computing Systems* (CHI '15). ACM, New York, NY, USA, 2477-2486. **Best Paper Honorable Mention Award**

Laura Devendorf and Kimiko Ryokai. "Redeform: Participatory 3D Printing in Public Places." In *Proceedings of the Ninth International Conference on Tangible, Embedded, and Embodied Interaction* (TEI '15). ACM, New York, NY, USA, 423-424.

Laura Devendorf and Kimiko Ryokai. "AnyType: Provoking Reflection and Exploration with Aesthetic Interaction." In *Proceedings of the 2013 CHI Conference on Human Factors in Computing Systems* (CHI '13). ACM, New York, NY, USA, 1041-1050. **Honorable Mention Award**

PUBLICATIONS CONTINUED

Extended Abstracts

Laura Devendorf and Daniela Rosner. "Reimagining Digital Fabrication as Performance Art." In *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '15). ACM, New York, NY, USA, 555-566.*

Laura Devendorf and Kimiko Ryokai. "Being the Machine: Exploring New Modes of Making." In *Proceedings of the 2014 companion publication on Designing Interactive Systems* (DIS Companion '14). ACM, New York, NY, USA, 33-36.

Laura Devendorf. "Making Art and Making Artists." In *Proceedings of the 2014 companion publication on Designing Interactive Systems* (DIS Companion '14). ACM, New York, NY, USA, 33-36.

Laura Devendorf and Kimiko Ryokai. "AnyType: Creating Typography from Anything, Anywhere." In *Proceedings of the 2012 ACM Conference on Ubiquitous Computing* (UbiComp '12). ACM, New York, NY, USA, 546-546.

Workshops organized

Stefanie Mueller, Laura Devendorf, Stelian Coros, Yoichi Ochiai, Madeline Gannon, Patrick Baudisch. "CrossFAB: Bridgeing the Gap between Personal Fabrication Research in HCI, Computer Graphics, Robotics, Art, Architecture, and Materials Science." In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '16). ACM, New York, NY, 3431-3437.

OTHER PUBLICATIONS

Laura Devendorf. 2016. What you've been reading? interactions 23, 4 (June 2016), 14-15.

Laura Devendorf. 2016. "Anatomy of a Cyborg 3D Printer." In *The 3D Additivist Cookbook.* Curated by Morehshin Allahyari and Daniel Rourke.

WORK EXPERIENCE

2017-present **Assistant Professor**, ATLAS Institute & Department of Information Science, University of Colorado, Boulder.

2013 - 2016 **Graduate Student Researcher**, UC Berkeley, CA
Prof. Kimiko Ryokai, School of Information, Summer 2013, Summer 2014, Spring 2015 - Fall 2015
Developed and studied interactive prototypes
Prof. Greg Niemeyer, Art Practice & Ron Real, Architecture, Summer 2004
Developed syllabus and materials for a course on urban prototyping entitled "Sensing Cityscapes."

2014-2015 **Artist in Residence**, Autodesk, San Francisco, CA
Developed novel projects that make use of Autodesk's Pier 9 fabrication workshops

2012 **Intern**, Otherlab, San Francisco, CA
Developed novel computer aided design and construction activities.

2009-2011 **Program and Events Coordinator**, Interdisciplinary Humanities Center, University of California Santa Barbara, CA
I coordinated speakers and events according to the IHC's yearly themes.

2010-2011 **Undergraduate Research Assistant**, Santa Barbara, CA
Prof. Tobias Hollerer, Computer Science, 2011.
Designed and developed visualization tools for topic models and cyber security applications.
Prof. John Gilbert, Computer Science, 2010.
Designed and developed an interactive application for undergraduate scientific computing courses.

2005-2009 **Graphic Designer and Lead Developer**, Stewart+Brown, Ventura, CA
Stewart+Brown is an independent clothing label specializing in organic and sustainable fashion. I developed the online store and custom web-based software to streamline production tracking, designed t-shirt graphics and promotional materials, and aided in producing garment samples.

TEACHING

2017 **ATLS 4529/5529: Critical Technical Practice**

2013-2014 **Graduate Student Instructor**, University of California, Berkeley
Sensing Cityscapes, Prof. Greg Niemeyer (Art) & Prof. Ron Rael (Architecture), Fall 2014
Developed course content, led introductory lessons on physical prototyping, and aided in the design and development of sensors deployed in urban environments.

Theory and Practice of Tangible User Interfaces, Prof. Kimiko Ryokai, Spring 2013, Fall 2013, Fall 2014
Updated course content, assisted students in lab work, graded assignments, co-led critiques, developed introductory programming workshops and lessons on fabrication tools and techniques.

Technologies for Creativity and Learning, Prof. Kimiko Ryokai, Spring 2014
Updated reading list, aided in the development of student-led reading discussions and class activities and graded assignments.

2013-2015 **Invited Lecturer,** University of California, Berkeley
Being the Machine, Meaning and Making, Fall 2015
Department of Art Practice, UC Berkeley

Social Research Methods in Design, Social and Organizational Issues of Information, Sprint 2013
School of Information UC Berkeley

Quick and Dirty Visualization Techniques. Spring 2013
Heath Policy and Management Studies Department Seminar, UC Berkeley

INVITED TALKS & PANELS

2017 *Unstable Technology for Unstable Futures.*
"Designing Futures Panel" at European Forum Alpbach Technology Symposium.

2016 *Usable/Unstable: Making Space for Resistance in Design*
ATLAS Institute University of Colorado, Boulder

2015 Crafted Conversations
Hosted by the American Crafts Council, Museum of Craft and Design, San Francisco, CA

2015 *Slow and Unpredictable Prototyping*
Data Clay Symposium, California College of the Arts, San Francisco CA.

2014 *Being the Machine: My Journey to Become a Human 3D Printer*
Autodesk's Pier 9 Workshop, San Francisco, CA

2014 *The Algorithm Multiple, the Algorithm Material*
Contours of Algorithmic Life Symposium. UC Davis (with Elizabeth Goodman)

2013 *AnyType: Social Meaning in DIY Typefaces*
Digital Society in Context , New Media Working Group, Berkeley, CA.

ART EXHIBITIONS

The Emerging Goddess. (with Emilia Louisa Pucci) Intersections: A conference exploring collaboration in textile design research. 2017.
3D Printing En Plein Air. Autodesk Artist in Residence Show, San Francisco, CA. 2016.
Being the Machine. Autodesk Artist in Residence Show, San Francisco, CA. 2015.
Redeform, TEI Arts Track, Stanford University, CA (Juried) 2015.
AnyType, Place by Design, SXSW Eco, Austin TX (Juried). 2014.
AnyType, Urban Prototyping Festival, San Francisco, CA (Juried). 2013.
Net in Ruins, Super Santa Barbara 2: Net Neutrality. Santa Barbara CAF, Santa Barbara, CA. 2011.
Canned Laughter, Fine Art Adoption Network, Pocket Utopia, New York, NY. 2008.
Canned Laughter, Anthology, Santa Barbara Contemporary Arts Forum, Santa Barbara, CA. (Juried). 2007.

SELECT PRESS

"Maschinen: Chaos erwünscht" (Machines: "Chaos" Desired). Wissen Aktuell, Austrian National Radio (ORF). June 2017.

"Color-Changing Threads Might One Day Turn Your T-Shirt Into a Screen." Gizmodo.com. May 2016

"Artists in Residence Give High Tech Projects a Human Touch." All Things Considered, National Public Radio. April 2015.

"PhD student's project 3D Print En Plein Air allows you to 3D print in nature." 3Ders.com. Nov. 2015

PROFESSIONAL ACTIVITES

Program Committee Member
Pictorials Chair, ACM SIGCHI Conference on Designing Interactive Systems, 2018

Associate Chair
ACM SIGCHI Conference on Designing Interactive Systems, 2017

Journal Reviewer
Design Issues, Digital Creativity, Interacting with Computers

Ellen Yi-Luen Do

College of Design & College of Computing
School of Industrial Design & School of Interactive Computing
Georgia Institute of Technology

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Keio-NUS CUTE Center
Interactive & Digital Media Institute,
National University of Singapore

02-01-01, I-Cube Building
21 Heng Mui Keng Terrace, Singapore 119613

ellendo@nus.edu.sg

EDUCATION

1992 -- 1998 Ph.D. Georgia Institute of Technology, USA
Major: Design Computing & Design Methods, Minor: Cognitive Science & Computer Science

Dissertation: The Right Tool at the Right Time –
Investigation of Freehand Drawing as an Interface to Knowledge Based Design Tools

Dissertation Committee: Craig M Zimring, Mark D Gross, Jean D Wineman
Reading Committee: Janet L Kolodner, Francis D.K. Ching

1990 -- 1991 Master of Design Studies, Harvard University, Graduate School of Design, USA
Design and Computing
Advisor: William J Mitchell

1983 -- 1988 Bachelor of Architecture (Honors), National Cheng Kung University, Taiwan, ROC
Minor in Urban Planning

Design Thesis: A Spatial Constitution of Contemporary Settlers Community –
The Case of Aboriginal Ami Tribe Dwelling in Pachiemen District, Keelung City (Thesis Award)
Thesis Advisor: Ming-Hung Wang

PROFESSIONAL EXPERIENCE

2016 – Present **Georgia Institute of Technology, Atlanta**

Professor, School of Industrial Design, College of Design (renamed since 2016) with joint appointment at the School of Interactive Computing, College of Computing

Associate Director, ID Faculty Coordinator, MS-HCI program (Master of Science in Human-Computer Interaction), PhD program proposal committee, School of Industrial Design

2013 – 2016 **National University of Singapore, Singapore**

Co-Director, Keio-NUS CUTE Center [http://cutecenter.nus.edu.sg/]

Interactive and Digital Media Institute (since April 2013), and Visiting Research Professor (since Jan 2013), with joint appointments at School of Computing (SoC) and Division of Industrial Design (DiD) at the School of Design and Environments (SDE)

Directing a multi-million-dollar joint International Research Center (named CUTE – Connective Ubiquitous Technology for Embodiments) between NUS and Keio University in Japan to develop technologies for

experience media research, source: Media Development Authority (MDA), Singapore.

Approved Fund: S$ 10.75 million, duration 2009-2016, supported by the Singapore National Research Foundation under its International Research Center Keio-NUS CUTE Center @ Singapore Funding Initiative and administered by the IDM Program Office, Singapore

Visiting Research Professor, Interactive & Digital Media Institute (IDMI), with joint appointments at the School of Computing (SoC) and the School of Design and Environment (SDE)

New course development, Design Platform, Digital Wellness (Fall 2013), Digital Wellness for Children (Spring 2014), Digital Wellness for Seniors (Fall 2014), Digital Play (Fall 2015)

GS6883A, Interface Sciences and Engineering, for NUS Graduate School for Integrative Sciences and Engineering - NGS PhD Program (Fall 2014, Spring 2015, Fall 2015)

Principal Investigator

CUTE Center Phase II: Creating Unique Technology for Everyone, Extension of International Research Centre (IRC) into RIE 2020, Research, Innovation, Enterprise, Singapore National Research Foundation, S$ 10 million (Oct 2016 – March 2021)

VR MedSIM, Virtual Reality Medical Simulation, including Virtual Interactive Human Anatomy (VIHA) and Virtual Interactive Simulation Environment (VISE), with Centre for Healthcare Simulation, Yong Loo Lin School of Medicine, National University of Singapore, $ 3.04 M SGD (Sep 2014 – Aug 2017)

HairWise: Sensing and Imaging Technology for Haircare, A*Star BMRC Strategic Positioning Fund – A*STAR – P&G (Procter & Gamble) Collaboration (APG2013/029A), $300,000 SGD (June 2015 – June 2017), joint with IME (Institute of Microelectronics) & IMRE (Institute of Materials Research and Engineering)

Mobile Application for Singapore Heritage Trails, National Heritage Board, Singapore, $205.44 K SGD (Jan 2015 – April 2016), National heritage Board

Project VitARmin, VR application for Vitamin Bottle, Proctor & Gamble, $51.06k SGD (Nov 2015 – April 2016)

3D Display Application Development for Augmented Learning, with Tohoku University, Research Institute of Electrical Communication (RIEC), $18.37 M JPY = $ 200k SGD

Silver Sense, a Smartphone Application for Elderly Wellness Monitoring, Active Ageing Council, People's Association (PA), $20k SGD (July 2014 – March 2015)

Supervisor

LORDS: Location ORiented Description Service based on Smartphone Probe Vehicle System" for research and development of location and digital contents distribution system, and field test, $ 28k SGD (April 2013 – March 2014)

Study of Future ITS Platform for Innovative Bus Services, Mitsubishi Heavy Industries LTD (MHI) $15.05k SGD (Dec 2013 – Sep 2014).

3Rd Eye, VR Helmet, Motorbike collision prevention system utilising 5.9 GHz V2V communication project, Denso Corp. $ 62.6K SGD (Jan 2015 –Sep 2015)

Design and production of a "location-aware variable message sign for bus transportation" Technology for positioning of automobile's location, together with analysis of system commercialisation value, Mitsubishi Heavy Industries, LTD, $46.96K SGD, $3,005,600 JPY (Dec 2014 – Aug 2015)

2012 (1 month) **National University of Singapore, Singapore**

Visiting Research Professor, Interactive & Digital Media Institute (IDMI

Collaborative research and planning discussion at CUTE Center [http://cutecenter.nus.edu.sg/]

2006 - present **Georgia Institute of Technology, Atlanta**

Professor (since March 2012), School of Industrial Design, College of Architecture with joint appointment at the School of Interactive Computing, College of Computing, affiliate faculty at GVU Center (since 2006), Health Systems Institute (since 2007), and Center for Music Technology (since 2009).

Associate Professor (Jan 2006 – Dec 2009) in the PhD Program (tenure home), College of Architecture, and joint appointment in the Intelligent and Interactive Computing Division (06-07), Human Centered Computing Program, and then the School of Interactive Computing (since Feb 2007), College of Computing, the School of Architecture (Jan 2010 – Dec 2011), then the School of Industrial Design (since Jan 2012)

Program and curriculum developments in Design Computing and Design Cognition for PhD program Courses cross-listed in Architecture, Computer Science and Health Systems. (2006 – 2011)

Graduate Program Coordinator, School of Industrial Design (Fall 2011 – Fall 2012)

New Degree Program development: MS HCI (Human-Computer Interaction) ID (Industrial Design) track (2012)

New course development: Creativity and Design Cognition, Visual and Spatial Reasoning, Design Computing and Everyware, Ambient Intelligence for Home Energy, Wellness, Emotion, Sex and Technology, Patient Room of the Future, Pediatric Center of the Future, Emergency Room of the Future, Onsite Health Center of the Future, Design Games, Happy Healthy Home – Ambient Intelligence and Innovation

Supervise research in creative design computing, human centered computing, human-robot interactions, energy puppet, and Evidence-Based Design best practices, technology interventions for healthcare environment.

Director, Health Space Futures [http://www.hsi.gatech.edu/healthcaredesign/]

A Laboratory, a series of interdisciplinary courses that focus on research and design for quality care and experience for patients, families and caregivers. The lab explores the possibilities of creating a safe, soothing and healing environment that increases patient, family and caregiver satisfaction while facilitating flexible use of space and integration of technologies toward a smart healing environment.

Director, ACME Lab – ACME Creativity Machine Environment [http://acmelab.gatech.edu]

Intelligent Systems and Objects, Design Computing and Cognition, Physical and Ubiquitous Computing, Intuitive Design Interfaces, Sketch Understanding, Diagram Indexing and Retrieval, Computationally Enhanced Construction Kits and Toys, Architectural Robotics, Ambient Intelligence and Smart Living Technologies.

Principal Investigator, NSF SHB 1117665 http://nsf.gov/awardsearch/showAward.do?AwardNumber=1117665

InteCog System: ClockReader+ and CogStim Game for Screening and Preventing Cognitive Impairment ($102,000, Sep 2011 – August 2012)

Principal Investigator, NSF HCC 1137527 http://nsf.gov/awardsearch/showAward.do?AwardNumber=1137527

Workshop: Graduate Student Symposium at ACM Creativity & Cognition (C&C 2011) Conference ($22,020, May 2011 – April 2012)

2004 - 2005 **Carnegie Mellon University, Pittsburgh**

Associate Professor, School of Architecture (Sep 2004 – Dec 2005)
Co-Director, Computational Design Research Lab [http://code.arc.cmu.edu]

Program & curriculum developments in the Graduate Program of Computational Design: Master of Science and Ph.D. Program. Supervise research in design critiquing, architectural robotics, computationally enhanced construction toys, and avatar based, augmented annotation with freeform authoring interface.

New course development: Studio X, Inventing Futures, Home 2020, Design Computing Theory and Method, Computational Design Colloquium. Co-teach (with Susan Finger, Civil Engineering) Rapid Design through Physical and Virtual Prototyping, Collaborative Learning in Design

1999 - 2004 **University of Washington, Seattle**

Associate Professor (with tenure since September 2003), Assistant Professor (1999-2003)
Department of Architecture, College of Architecture & Urban Planning

New course development: Digital Design Studio, Computer Graphics Programming in Lisp, Computers in Architecture, Digital Design Media, Design Computing Seminar and Developing Design with Computers (Digital Design Dreams).

Program development: Architecture Hall Infrastructure upgrade and Plug-n-Play scheme. Tools for Transformation Grant, Curricular development and planning for Master of Science in Design Computing Program, Certificate of Design Computing, Computational Design Research focus track in College Ph.D. in Built Environment.

Principal Investigator, NSF DUE-0127579 http://nsf.gov/awardsearch/showAward.do?AwardNumber=0127579
Project title: Enhancing Spatial Reasoning and Visual Cognition for Early Science and Engineering Students with 'Hands-on' Interactive Tools and Exercises (March 2002 - August 2004)

Co-Director, Design Machine Group
Conduct research on design, computing and built environment, organize Design Computing Research Colloquium (Lab Lunch Seminar). Supervise student researchers.

Program Director, Master of Science in Design Computing Program (from March 2002)
Oversee program operation, curricular development and planning, admission, and program budget administration. Supervise program administrative staff.

Program Faculty, Executive Planning Committee, Interdisciplinary College Ph.D. in Built Environment Program
Program proposal, planning and curricular planning

Honors Council, and Program Faculty, University of Washington, Honors Program (from Summer 2002)
Course: Visual Thinking and Spatial Reasoning, Early Fall Start, and Freshman Seminar

Program Faculty, Interdisciplinary Ph.D. Program in Urban Design and Planning (from Spring 2002)
Supervision of Ph.D. students and curriculum planning

Adjunct Assistant Professor, Department of Landscape Architecture (from Fall 2001)
Urban Design Studio (Northgate, Thornton Creek, Community Center, Northgate Public Library and Open Space) engaged in citizen participation community workshops sponsored by the City of Seattle. Chairing student theses.

1998 - 1999 **University of Colorado, Boulder**

Post-Doctoral Fellow, NSF grant 96-19856, Sundance Lab for Design Computing
Computer support for design, including diagrams, drawing and constraint based architectural design methods supervise Lab research projects.

1994 - 1998 **University of Colorado, Boulder**

Professional Research Associate, Sundance Lab for Design Computing
Computer support for design, including diagrams, drawing and constraint based architectural design methods supervise Lab research projects.

Instructor, Environmental Design Program, College of Architecture & Planning
Teaching Computer Graphics Programming, Managing Architecture & Planning Computer Facilities (Lab Advisors)

1992 - 1994 **Georgia Institute of Technology, Atlanta**

Research Assistant, Ph.D. Program, College of Architecture
Integrating computing and design analysis: Isovist & space syntax

Research Assistant for Architecture & Artificial Intelligence joint project ARCHIE
Case-Based Reasoning for conceptual design using Post Occupancy Evaluation data, data collection, user studies, and implementation of a diagram interface

Instructor, and Teaching Assistant, Industrial Design Program, College of Architecture
Teaching Alias visualization, multi-media applications for industrial design graduate students
Industrial design graduate design studio

1990 – 1992 **Harvard University, Graduate School of Design**

Technical and Applications Assistant, Computer Aided Design Resources Department
Technical support for computer applications, academic consulting on computer-aided design for students and faculty, General project administrator

System management encompassing Macintosh and IBM micro-computers, UNIX-based Sun Sparc, Silicon Graphics Iris, and IBM RT workstations.

Electronic Virtual Design Studio, railroad train station design

Designer & Modeler
Project Boston 2000 (for Congress of Architecture, Engineering and Construction)

1989 – 1990 **Tourism Bureau, Ministry of Communications, Taiwan, ROC**

Designer, Project Manager, Research Assistant
Kingmen Area Landscape Controlling Codes and Urban Planning Suggestions
Tourism Resources Survey and Integrated Development of Kingmen
Kingmen island tourist resort design, scenic spots planning, project management and publications

1989 - 1990 **Freelance Designer, Taipei**

Designer & Researcher
Urban Design and Planning Proposal for the Yi-Lan County, Taiwan

Designer
Orange Country Preserved Fruits Display Center, Yi-Lan, Taiwan.

1988 – 1989 **National Taiwan University Graduate Institute of Building and Planning**

Teaching Assistant, Research Assistant, and Project Manager
Research and material preparation for class on public open space & urban seismic disaster design
Relationship between Population Characteristics & Land Use in Densely Populated Areas
The Evaluation of Urban Seismic Disaster Factors

1988 – 1989 **C. H. Ho International, Architects & Planners, Taipei**

Designer
First Prize, design competition entry, Hsi-Chi Commercial Building
Houlong Institute of Technology campus planning and design
Taipei Public Housing Project spatial layout design

1987 **National Taiwan University, Institute of Architecture and Urban Studies**

Researcher,
Construction Techniques of Confucius Temple in Tainan City

1987 **C. Y. Lee & Partners, Architects, Planners, Taipei**

Intern architect, spatial layout organizer, schematic designing and construction drafting
Taipei Regent Hotel

1984 - 1986 **Studio of Chinese / Contemporary Architecture, Landscape, & Environment (SCALE)**

Researcher
Architecture in Anping (project and book publication)

1985 **Tainan Cultural Center**

Instructor
Introduction to Chinese Architecture

EDITED VOLUME AND REFEREED BOOK CHAPTER

2015 "Proceedings of the 2015 ACM SIGCHI Conference on Creativity and Cognition (C&C '15)," June 22-25, 2015, Glasgow, UK, conference chair Tom Maver, II, program chair Ellen Yi-Luen Do, ACM Press ISBN: 978-1-4503-3598-0, http://dl.acm.org/citation.cfm?id=2757226, 404 pages.

"Proceedings of the 6th Augmented Human International Conference (AH '15)," March 09-11, 2015, Singapore, conference chairs Suranga Nanayakkara, Ellen Yi-Luen Do, http://dl.acm.org/citation.cfm?id=2735711, ACM Press, ICPS: ACM International Conference Proceeding Series (228 pages) ACM ISBN 978-1-4503-3349-8

2014 "Clock Reader", Ellen Yi-Luen Do and Hyungsin Kim, in the book "Designed Technologies for Healthy Aging" edited by Claudia B. Rebola, page 78-81, Morgan & Claypool Publishers

"Proceedings of the Second International Symposium of Chinese CHI," April 26-27, 2014, Toronto, conference chairs Ellen Yi-Luen Do, Wei Li, http://dl.acm.org/citation.cfm?id=2592235 ICACHI International Chinese Association of Computer Human Interaction (120 pages) ACM Press 978-1-4503-2876-0

2013 "Intelligent Interactive Technologies and Multimedia: Second International Conference, IITM 2013, Allahabad, India, March 9-11, 2013. Proceedings, edited volume by Anupam Agrawal, RC Tripathi, Ellen Yi-Luen Do, MD Tiwari, 2013, Springer Publisher, http://library.wur.nl/WebQuery/clc/2026691

"Designing Interactive Computing for Happy Healthy Life" Ellen Yi-Luen Do, 2013/1/1, chapter for the book, Intelligent Interactive Technologies and Multimedia, P. 1-13, Publisher, Springer Berlin Heidelberg. http://link.springer.com/chapter/10.1007/978-3-642-37463-0_1

2012 "Happy Healthy Home," Ellen Yi-Luen Do and Brian D Jones, chapter for The Handbook of Ambient Assistive Technologies for Healthcare, Rehabilitation and Well-being, J. Maitland (ed) IOS Press, Amsterdam, The Netherlands, Volume 11, 2012, pp. 195-210, DOI: 10.3233/978-1-60750-837-3-195 IOS Press

2011 SBIM 2011 – Proceedings of the Eighth Eurographics Symposium on Sketch-Based Interfaces and Modeling, Conference Chairs: Ellen Do, Jean-Claude Leon, Program Chairs: Tracy Hammond, Andy Nealen, SBIM/NPAR/CAe 2011 Joint Symposia on Sketch-Based Interfaces and Modeling, Non-Photorealistic Animation and Computational Aesthetics, Vancouver, BC, Canada — August 05 - 07, 2011 ACM New York, NY, USA ©2011 http://dl.acm.org/citation.cfm?id=2021164

TEI'11, Proceedings of the fifth international conference on Tangible, embedded, and embodied interaction, (eds) Ellen Yi-Luen Do, Stephen Brewster, Ian Oakley, Funchal, Portugal — January 22 - 26, 2011, ACM, New York, (453 pages) http://dl.acm.org/citation.cfm?id=1935701

TEI 2011 Work-in-Progress, Proceedings of the work-in-progress workshop at the 2011 Tangible, Embedded and Embodied Interaction in Madeira, Portugal (eds) Ellen Yi-Luen Do, Mark D Gross, Ian Oakley (204 pages) http://www.lulu.com/product/paperback/tei-2011-work-in-progress/14640275

"Sketch that Scene for Me and Meet Me in Cyberspace," Ellen Yi-Luen Do, in Collaborative Design in Virtual Environments (Chapter 11) pp. 121-130, edited by Xiangyu Wang and Jerry Jen-Huang Tsai, Springer ISBN: 978-94-007-0604-0, Springer Online Springer Link http://www.springerlink.com/content/978-94-007-0604-0#section=862591&page=1&locus=0

2010 SBIM 10 – Proceedings for the Seventh Sketch-Based Interfaces and Modeling Symposium jointly with Eighth Symposium on Non-Photorealistic Animation and Rendering Annecy, France — June 07 - 10, 2010, (eds)

Marc Alexa, Ellen Yi-Luen Do, Eurographics Association Aire-la-Ville, Switzerland, Switzerland (158 pages) http://dl.acm.org/citation.cfm?id=1923363&CFID=9151343&CFTOKEN=24384934

"Design Computing and Cognition" – Special Issue for AI EDAM Artificial Intelligence for Engineering Design, Analysis and Manufacturing, Volume 24 - Special Issue 01, Published online: 29 January 2010 http://journals.cambridge.org/action/displayIssue?jid=AIE&volumeId=24&seriesId=0&issueId=01

Editorial – Design Computing and Cognition, An Introduction, DOI>10.1017/S0890060409990205, (eds) Ashok Goel and Ellen Yi-Luen Do, AI EDAM Vol 24 (1): 1-2, Cambridge University Press, http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=7128756

2009 "The mechanisms of value transfer in design meetings," Christopher A. Le Dantec and Ellen Yi-Luen Do, Values" in About Designing: Analysing Design Meetings, Edited by Janet McDonnell and Peter Lloyd, Taylor & Francis http://www.routledgeart.com/books/About-Designing-isbn9780415440585 http://design.open.ac.uk/dtrs7/downloads/About_Designing.pdf

"Tangible Interaction for Design" – Special Issue for AI EDAM Artificial Intelligence for Engineering Design, Analysis and Manufacturing, Volume 23 - Special Issue 03, Published online: 17, June 2009, DOI> 10.1017/S0890060409000195, http://journals.cambridge.org/action/displayIssue?iid=5855024

Editorial - Back to the real world: Tangible interaction for design, Ellen Yi-Luen Do and Mark D. Gross Artificial Intelligence for Engineering Design, Analysis and Manufacturing / Volume 23 / Special Issue 03, pp 221 -223, Published online: 17 June 2009, DOI>10.1017/S0890060409000195 http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=5855028

2008 "TeleTables and Window Seat: Bilocative Furniture Interfaces," Yeonjoo Oh, Ken Camarata, Mike Philetus Weller, Mark D Gross, and Ellen Yi-Luen Do, in Ubiquitous Computing: Design, Implementation, and Usability, Yin-Leng Theng and Henry B. L. Duh, Eds. Hershey: Information Science Reference, 2008, (Chapter 11) pp. 160 - 171. ISBN-13: 978-1-59904-693-8 (hardcover) ISBN-13: 978-1-59904-695-2 (e-book) http://www.igi-global.com/reference/details.asp?ID=7532, http://www.igi-global.com/bookstore/chapter.aspx?TitleId=30525

2006 "Understanding, Representing and Reasoning about Design" – Special Issue for AI EDAM Artificial Intelligence for Engineering Design, Analysis and Manufacturing, Volume 20 - Issue 03, Published online: 27, June 2006 http://journals.cambridge.org/action/displayIssue?jid=AIE&volumeId=20&seriesId=0&issueId=03

Editorial, Understanding, Representing and Reasoning about Design, Claudia M. Eckert and Ellen Yi-Luen Do, Artificial Intelligence for Engineering Design, Analysis and Manufacturing / Volume 20/ Issue 03, pp 163 -165, online: 27 June 2006, DOI: 10.1017/S089006040606014, http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=449339

2003 "Integrating the Digital and the Physical…" (eds) Nancy Yen-Wen Cheng and Ellen Yi-Luen Do, for International Journal of Architectural Computing, Volume 1, Number 2 / June 2003, Multi Science Publishing ISSN1478-0771, Online Wednesday, July 29, 2009 http://multi-science.metapress.com/content/r17028467n13/?p=b88e1acba06b4bb58824dbc9fc53fe64&pi=0

Editorial Pages - "Integrating the Digital and the Physical…" (eds) Nancy Yen-Wen Cheng and Ellen Yi-Luen Do, International Journal of Architectural Computing, Volume 1, Number 2 / June 2003, Multi Science Publishing ISSN1478-0771, Online Wednesday, July 29, 2009, pp 131-132, DOI> 10.1260/147807703771799139 Online Wednesday, July 29, 2009 http://multi-science.metapress.com/content/r17028467n13/?p=db97cc10a95f46cda3a5734bd5f6d0f2&pi=28

"Why Peer Review Journals?" Ellen Yi-Luen Do, International Journal of Architectural Computing, Volume 1, Number 2 / June 2003, Multi Science Publishing ISSN1478-0771, Online Wednesday, July 29, 2009, pp 263-265, DOI> 10.1260/147807703771799229 Online Wednesday, July 29, 2009 http://multi-science.metapress.com/content/b72g72q075216861/?p=f2037ba72ddb49268f44ddb89176162b&pi=9

2001 "Thinking with Diagrams in Architectural Design", Ellen Yi-Luen Do and Mark D. Gross, In Thinking with Diagrams, Alan F. Blackwell (ed), (Chapter 8 in single volume book, reprinted from AI Review) pp. 135-149, Kluwer Academic Publishers, Dordrecht, The Netherlands. http://books.google.com/books?id=IRcKTUOGKUIC&pg=PP1&dq=Thinking+with+Diagrams

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2009 "Thinking with Diagrams in Architectural Design", Ellen Yi-Luen Do and Mark D Gross, for Architectural Review special issue, The Diagram, p 50-54, printed by the Concrete Centre http://portal.acm.org/citation.cfm?id=378094 also http://en.wikipedia.org/wiki/Architectural_drawing

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2016 "Digital Lollipop: Studying Electrical Stimulation on the Human Tongue to Simulate Taste Sensations, Nimesha Ranasinghe, Ellen Yi-Luen Do, in ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM) Volume 13 Issue 1, Article No. 5 ACM New York, NY, USA doi>10.1145/2996462

"Virtual ingredients for food and beverages to create immersive taste experiences: The sensation of taste as an electronic media" Nimesha Ranasinghe, Kuan-Yi Lee, Gajan Suthokumar, Ellen Yi-Luen Do, in the Journal of Multimedia Tools and Applications, 1-19, Springer, online Jan 6, 2016, DOI> 10.1007/s11042-015-3162-8

2014 "La forma de las actividades humanas en el espacio: hacia un análisis espacio-temporal en la arquitectura," Paula Gómez, Ellen Yi-Luen Do, Mario Romero, De Arquitectura Vol 26:11-19, Aug 13, 2014, http://www.revistas.uchile.cl/index.php/RA/article/viewArticle/32550 or doi>10.5354/0719-5427.2012.32550

2013 "Evidence-based design of healthcare facilities: opportunities for research and practice in infection prevention" Craig Zimring, Megan E Denham, Jesse T Jacob, David Z Cowan, Ellen Do, Kendall Hall, Douglas Kamerow, Altug Kasali, James P Steinberg, 2013/5, in Journal of Infection Control and Hospital Epidemiology, Volume 34 Issue 5 Pages 514-516, http://www.jstor.org/discover/10.1086/670220?uid=3738992&uid=2&uid=4&sid=21103394193903

A Theoretical Framework of Design Critiquing in Architecture Studios, Yeonjoo Oh, Suguru Ishizaki, Mark D. Gross, Ellen Yi-Luen Do, in Design Studies, Available online 25 September 2012, Vol 34 (3): 302-325, May 31, 2013, http://dx.doi.org/10.1016/j.destud.2012.08.004

2012 "Quantifying the Artistic Experience with Perceptive Sketching Tools: Cognitive Technologies to Support Creative Researchers," Nicholas Davis and Ellen Yi-Luen Do, Comunicação e Sociedade 22, 76-95 http://www.lasics.uminho.pt/ojs/index.php/comsoc/article/download/1275/1217

"Home-based Computerized Cognitive Assessment Tool for Dementia Screening", Hyungsin Kim, Chih-Pin Hsiao, Ellen Yi-Luen Do, Journal of Ambient Intelligence and Smart Environments, JAISE IOS Press, pp. 429 - 442, DOI 10.3233/AIS-2012-0165 http://iospress.metapress.com/content/t62j422j6804/

2011 "The Role of Information and Computer Technology for Children with Autism Spectrum Disorder and the Facial Expression Wonderland (FEW)", Rung-Yu Tseng and Ellen Yi-Luen Do, International Journal of Computational Models and Algorithms in Medicine (IJCMAM) 2(2), 23-41, April-June 2011, (ed) Aryya Gangopadhyay, IGI Global, Hershey, PA, USA, DOI: 10.4018/jcmam.2011040102 http://www.igi-global.com/bookstore/titledetails.aspx?TitleId=1166

2010 "Move, Beam, and Check! Imagineering Tangible Optical Chess on An Interactive Tabletop Display," Andy Wu, David Joyner & Ellen Yi-Luen Do, in ACM Computers in Entertainment (CIE) Vol 8 (3) Article 20 (15 pages, Wu and Joyner, PhD students), http://dx.doi.org/10.1145/1902593.1902599 or http://portal.acm.org/citation.cfm?id=1902593.1902599

"Extended Linkography And Distance Graph In Design Evaluation: An Empirical Study Of The Dual Effects Of Inspiration Sources In Creative Design," Hui Cai, Ellen Yi-Luen Do, Craig M. Zimring, in journal of Design Studies. Vol. 31 (2) March 2010, pp 146-168, doi:10.1016/j.destud.2009.12.003 (Available online 22 January 2010, Cai: PhD student, Zimring: faculty colleague) http://linkinghub.elsevier.com/retrieve/pii/S0142694X09000970

"A Constraint-Based Furniture Design Critic" Yeonjoo Oh, Mark D Gross, Suguru Ishizaki, Ellen Yi-Luen Do, in Research and Practice in Technology Enhanced Learning (RPTEL) Vol 5: 2 (2010) 97-122 DOI: 10.1142/S1793206810000864 *&* http://dx.doi.org/10.1142/S1793206810000864

2009 "Computational Support for Sketching in Design: A Review", Gabe Johnson and Mark D. Gross and Jason Hong and Ellen Yi-Luen Do, in *Foundations and Trends® in Human–Computer Interaction*: Vol. 2: No 1, pp 1-

93. DOI: 10.1561/1100000013 (http:/dx.doi.org/10.1561/1100000013) (Johnson: former student. Gross and Hong: faculty colleagues) Now Publishers, Boston, Delft. http://www.nowpublishers.com/product.aspx?product=HCI&doi=1100000013

"The mechanisms of value transfer in design meetings," Christopher A. Le Dantec and Ellen Yi-Luen Do, Values in the Design Process, Edited by Peter Lloyd and Janet McDonnell, in Design Studies, Volume 30, Issue 2, March 2009, Pages 119-137, doi:10.1016/j.destud.2008.12.002 (Available online 29 January 2009, Le Dantec: PhD student) http://dx.doi.org/10.1016/j.destud.2008.12.002

"Educating the New Makers: Cross-Disciplinary Creativity," Mark D Gross and Ellen Yi-Luen Do, in Leonardo, Vol. 42: 3. Pp 210-215. E-ISSN: 1530-9282 Print ISSN: 0024-094X, Edited by Leonardo/the International Society for the Arts, Sciences and Technology, and published by the MIT Press, Posted Online April 30, 2009. doi:10.1162/leon.2009.42.3.210 (Gross: faculty colleague) http://www.mitpressjournals.org/doi/abs/10.1162/leon.2009.42.3.210

2008 "ArchiDNA: An Interactive System for Creating 2D and 3D Conceptual Drawings in Architectural Design," Doo Young Kwon, Mark D Gross and Ellen Yi-Luen Do, for Journal of Computer Aided Design, Vol. 41: 159-172 (available online since 8/08 - http://dx.doi.org/10.1016/j.cad.2008.07.007, Science Direct) Elsevier Publisher. (Kwon: former MS student. Gross: faculty colleague)

2006 "FlexM: Designing a Physical Construction Kit for 3D Modeling", Markus Eng, Ken Camarata, Ellen Yi-Luen Do, Mark D Gross, in IJAC – International Journal of Architectural Computing, Nancy Cheng and Celine Pinet (eds), 1 June 2006, vol. 4, issue. 2, pp: 27-47, Multi-Science Publishing Co Ltd (Eng: M Arch student, Camarata: former MS student, Gross: faculty colleague), DOI> 10.1260/1478-0771.4.2.27, http://multi-science.metapress.com/content/x3648288433k55j2/

"Energy Cube and Energy Magnets", Ken Camarata, Ellen Yi-Luen Do, Mark D Gross, in IJAC - International Journal of Architectural Computing, Nancy Cheng and Celine Pinet (eds), 1 June 2006, vol. 4, issue. 2, pp: 49-66, (Camarata: former student, Gross: faculty colleague) DOI > 10.1260/1478-0771.4.2.49 http://multi-science.metapress.com/content/e680h04n364106k2/

2005 "Design Sketches and Sketch Design Tools," Ellen Yi-Luen Do, in KBS - Knowledge Based Systems (18) 383-405, Kumiyo Nakakoji, Mark D Gross, Linda Candy, Ernest Edmonds (eds), Elsevier Publisher. Available online 11 August 2005, doi>10.1016/j.knosys.2005.07.001, http://dx.doi.org/10.1016/j.knosys.2005.07.001

"SPOT! Fetch Light: Interactive navigable 3D visualization of direct sunlight," Sébastien Bund and Ellen Yi-Luen Do, in Automation in Construction, Volume 14, Issue 2, March 2005, Pages 181-188 , Elsevier, B.V. doi:10.1016/j.autcon.2004.07.007 Available online 8 January 2005 (Bund: former student) http://dx.doi.org/10.1016/j.autcon.2004.07.007

2004 "Let There Be Light! Knowledge-Based 3-D Sketching Design Tools," Ellen Yi-Luen Do and Mark D. Gross IJAC - International Journal of Architectural Computing, Wassim Jabi and Celine Pinet (eds), 1 June 2004, vol. 2, issue. 2, pp. 211-227(17) Multi-Science Publishing Co Ltd (Gross: faculty colleague) DOI: 10.1260/1478077041518647 http://multi-science.metapress.com/content/u772723uxw441874/

2003 "A Physical Computing Studio: Exploring Computational Artifacts and Environments," Ken Camarata, Mark D Gross, and Ellen Yi-Luen Do, in International Journal of Architectural Computing, Volume 1, Issue #2. Nancy Yen-wen Cheng and Ellen Yi-Luen Do (eds.) Multi-Science Publisher, UK, Pp 169-190 (Camarata: research associate and former student, Gross: faculty colleague) (Double Blind Review, 7/11, acceptance rate 64%) DOI: 10.1260/147807703771799166 or http://multi-science.metapress.com/content/883l660315237614/?p=206795a1166741f38c67ee40a2078ea9&pi=3

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2000 "Drawing on the Back of an Envelope", Mark D. Gross and Ellen Yi-Luen Do, in Computers and Graphics, Vol. 24, No. 6, pp. 835-849, Calligraphic Interface, Joaquim A Jorge and Ephraim Glinert (eds) New York, Pergamon Press. DOI: 10.1016/S0097-8493(00)00087-X or http://www.ingentaconnect.com/content/els/00978493/2000/00000024/00000006/art00087

"Intentions and Relations among Design Drawings", Ellen Yi-Luen Do, Mark D. Gross, Craig Zimring, and Bennett Neiman, in Design Studies Vol. 21 #5 pp. 483-503, Gabriel Goldschimidt and William Porter (eds), Elsevier Publisher doi:10.1016/S0142-694X(00)00020-X or http://dx.doi.org/10.1016/S0142-694X(00)00020-X

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PEER REVIEWED CONFERENCE PAPERS

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2015 "Digital Flavor: Towards Digitally Simulating Virtual Flavors," Nimesha Ranasinghe, Gajan Suthokumar, Kuan-Yi Lee, and Ellen Yi-Luen Do. In Proceedings of the 2015 ACM on International Conference on Multimodal Interaction, pp. 139-146 ACM, Nov 9-13, 2015, doi>10.1145/2818346.2820761

"WildAR: Creating a networked AR system for "in-the-wild" studies " Weiquan Lu, Mandi Jieying Lee, Teong Leong Chuah, Chun Kit Lee, Zheng Yi Lim, Ellen Yi-Luen Do. International Symposium for Mixed and Augmented Reality Sep 29 – 3 Oct, 2015, Fukuoka, Japan, http://ieeexplore.ieee.org/document/7350733/

"Multimodal Digital Taste Experience with D'Licious Vessel." Liangkun Yan, Barry Chew, Jie Sun, Li-An Chiu, Nimesha Ranasinghe, and Ellen Yi-Luen Do. In Virtual, Augmented and Mixed Reality, pp. 409-418. Springer International Publishing, 2015. 7th International Conference, VAMR 2015, Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015, Proceedings, doi>10.1007/978-3-319-21067-4_42

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"State Machines are Child's Play: Observing children age 9 to 11 playing with Escape Machine," Michael Philetus Weller, Mark D Gross and Ellen Yi-Luen Do, IDC, International Conference of Interaction Design and Children, June 3-5, Como Italy, http://www.idc09.polimi.it/ (acceptance rate 17/53, 32%, Weller: former PhD student. Gross: faculty colleague) pp. 170-173, http://portal.acm.org/citation.cfm?id=1551788.1551819

"Technological Interventions for Hand Hygiene Adherence - Research and intervention for smart patient room," Ellen Yi-Luen Do, in CAAD Futures 2009, June 17-19, Montreal, Canada (two steps review, acceptance rate 31- 48%, 63/130/200) T. Tidalfi and T. Dorta (eds), p. 303-313, http://www.arclab.umontreal.ca/CAADFutures09/ http://www.caadfutures.org/proceedings_09.htm , see http://cumincad.scix.net/cgi-bin/works/Search?search=Technological+Interventions+for+Hand+Hygiene and (CuminCAD login needed) http://cumincad.scix.net/cgi-bin/works/Show?cf2009_303

"Assessing the significance of problem solving expertise and computational tool proficiency for design performance," Sherif Morad AbdelMohsen and Ellen Yi-Luen Do, in CAAD Futures 2009, June 17-19, Montreal, Canada (two steps review, 63/130/200, acceptance rate 31-48%, AbdelMohsen: Design Cognition PhD student), T. Tidalfi and T. Dorta (eds). p. 273-287 http://www.arclab.umontreal.ca/CAADFutures09/, see http://cumincad.scix.net/cgi-bin/works/Search?search=Sherif+Morad+AbdelMohsen and (CuminCAD login needed) http://cumincad.scix.net/cgi-bin/works/Show?cf2009_273

"Toward An Intelligent Design Critiquing System - Investigation of Delivery Types and Modalities of Critiquing," Yeonjoo Oh, Mark D Gross, Ellen Yi-Luen Do and Suguru Ishizaki, in CAAD Futures 2009, June 17-19, Montreal, Canada, poster http://www.arclab.umontreal.ca/CAADFutures09/ (Oh: former Computational Design PhD student. Gross, Ishizaki: faculty colleagues, acceptance rate 18/67, 27%) Poster proceedings, p 43-45, http://cumincad.scix.net/cgi-bin/works/Search?search=Yeonjoo+Oh and (CuminCAD login needed) http://cumincad.scix.net/cgi-bin/works/Show?cf2009_poster_43

"Designing Three Dimensional Image Generator," Chung-Lun Kuo and Ellen Yi-Luen Do, in CAAD Futures 2009, June 17-19, Montreal, Canada, poster (Kuo: Design Computing PhD student, acceptance rate 18/67, 27%), Poster proceedings, p 17-18 http://cumincad.scix.net/cgi-bin/works/Show?cf2009_poster_17 http://www.arclab.umontreal.ca/CAADFutures09/CAAD_futures_2009_home.php, or http://cumincad.scix.net/cgi-bin/works/Search?search=Chung-Lun+Kuo and (member login needed)

"Towards a Smart Living Environment," Ellen Yi-Luen Do, in CAAD Futures 2009, June 17-19, Montreal, Canada, poster http://www.arclab.umontreal.ca/CAADFutures09/CAAD_futures_2009_home.php, (acceptance rate 18/67, 27%), Poster proceedings, p 27-29

"Tangible Sketching in 3D with Posey," Michael Philetus Weller, Ellen Yi-Luen Do and Mark D Gross, in Ext Abstracts of 27th international conference on Human Factors in Computing (CHI 2009) session: Interactivity: touch & feel pp. 3193-3198, Boston, MA, USA, April 5-9 (acceptance rate 24.5%) (Weller, Computational Design PhD student) http://doi.acm.org/10.1145/1520340.1520455

"An Optocoupled Poseable Ball and Socket Joint for Computationally Enhanced Construction Kits," Michael Philetus Weller, Ellen Yi-Luen Do and Mark D Gross, in Robocom - Second International Conference on Robot Communication and Coordination, Odense, Denmark, March 31 - April 2 2009, pp. 1-6, ISBN: 978-963-9799-51-6INSPEC Accession Number: 10661513 http://www.robocomm.org/techprog.shtml & http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=4957466 (Weller, Computational Design PhD student)

"The ED of the Future: an Interdisciplinary Graduate Course in Healthcare Design," SAEM 2009 – Society for Academic Emergency Medicine annual meeting, May 14-15, New Orleans, in the category of Innovations in Emergency Medicine Education, (IEME) exhibits, (abstract peer reviewed, acceptance rate, 20/83 submission), http://www.saem.org/saemdnn/Meetings/2009AnnualMeeting/tabid/1132/Default.aspx, http://www.saem.org/saemdnn/Meetings/2009AnnualMeeting/2009MeetingEvents/IEME2009/tabid/1194/Default.aspx, Jeremy Ackerman (Emory School of Medicine), David Cowan (Health Systems Institute), Ellen Yi-Luen Do, Marilyn Margolis (Emory School of Nursing), Marvina Williams (Perkins + Will Architects), Craig Zimring (faculty colleagues) http://onlinelibrary.wiley.com/doi/10.1111/j.1553-2712.2009.00392_9.x/abstract, Academic Emergency Medicine*,* Special Issue: 2009 SAEM Annual Meeting Abstracts*,* Volume 16, Issue s1, page S277, April 2009*,* DOI: 10.1111/j.1553-2712.2009.00392_9.x

"Interactive Blow Painting," Yang-Ting Shen and Ellen Yi-Luen Do in 2009 International Symposium on Digital Life Technologies: Human-Centric Smart Living Technology, May 28, 29, pp. 24-30 http://credit.csie.ncku.edu.tw/2009_ch/main.htm in Chinese (Yang-Ting: MS HCI, Digital Media student)

2008 "PianoTouch: A Wearable Haptic Piano Instruction System For Passive Learning of Piano Skills," Kevin Huang, Ellen Yi-Luen Do, Thad Starner, in ISWC 2008, 12th IEEE International Symposium on Wearable Computers, http://www.iswc.net/, pp 41-44, Sep 28 - Oct 1, Pittsburgh, Pennsylavania (Huang: CS MS student, Starner: Interactive Computing faculty)
http://doi.ieeecomputersociaety.org/10.1109/ISWC.2008.4911582

"Energy Puppet: An Ambient Awareness Interface for Home Energy Consumption," Sherif Morad Abdelmohsen and Ellen Yi-Luen Do, in SID 08, 7th International Workshop on Social Intelligence Design, Designing socially aware interactions, http://cdr.uprrp.edu/SID2008/default.htm, Dec 3-5, Universidad de Puerto Rico, San Juan, PR, full 7 page paper included in digital proceedings (Abdelmohsen: Design Computing PhD student)

"Variation from Repetition," Marcelo Bernal and Ellen Yi-Luen Do, in eCAADe 08, Education and Research in Computer Aided Architectural Design in Europe, architecture 'in computro' integrating methods and techniques, http://www.ecaade08.be/, pp. 791-798, Sep 17 – 20, University College of Antwerpen, Belgium, (Bernal: Design Computing PhD student). http://ecaade08.be/Day3

"Computing Spatial Qualities For Architecture," Sora Key, Mark D Gross and Ellen Yi-Luen Do, in ACADIA 2008, Silicon + Skin, Computational Methods for Data Integration, pp 472-477, Oct 16-19, University of Minnesota, Minneapolis, http://www.acadia.org/acadia2008/?page_id=140 (Key: Computational Design PhD student, Gross: faculty colleague)
http://www.researchgate.net/publication/30871556_Computing_Spatial_Qualities_For_Architecture

"Posey: Instrumenting a Poseable Hub and Strut Construction Toy," Michael Philetus Weller, Ellen Yi-Luen Do and Mark D Gross, in Tangible and Embedded Interaction (TEI'08), Feb 18-20, Bonn, Germany, pp 39-46. http://tei-conf.org/ (Weller: Computational Design PhD student) (full paper review, acceptance rate 31%, 27/85) doi>10.1145/1347390.1347402 or http://portal.acm.org/citation.cfm?id=1347402

Escape Machine: teaching computational thinking with a tangible state machine game," Michael Philetus Weller, Ellen Yi-Luen Do and Mark D Gross, in Interaction Design and Children (IDC '08), pp. 282-289, Chicago, June 11-13. http://idc08.northwestern.edu/index.php (Weller: PhD student) (full paper review) doi>10.1145/1551788.1551819 or http://portal.acm.org/citation.cfm?id=1551788.1551819

"SmartHands – a multi-modal haptic piano teaching system," Kevin Huang and Ellen Yi-Luen Do, in DCC 08 (Design Computing and Cognition), June 22-26, Atlanta, http://mason.gmu.edu/~jgero/conferences/dcc08/, Poster Proceedings Vol. II. pp 13-14 (Huang: CS Master student) (extended abstract review, 60% acceptance)

"Computer-Aided Critiquing Systems: Lessons Learned and New Research Directions," Yeonjoo Oh, Mark D Gross, Ellen Yi-Luen Do, in CAADRIA (Computer Aided Architectural Design Research in Asia) Chiang Mai, Thailand, April 9-12, http://www.caadria2008.org/, pp 161-167 (Oh: Computational Design PhD student) (abstract and full paper review, acceptance rate 50%, 85/170)

2007 "The Mechanisms of Value Transfer in Design Meetings," Christopher A Le Dantec and Ellen Yi-Luen Do, in DTRS 7, Design Meeting Protocols, Design Thinking Research Symposium, Central Saint Martins College of Art and Design, London, UK, (eds) Nigel Cross, Peter Lloyd, Rachael Luck, Janet McDonnell, and Fraser Reid, p 57-68 (Le Dantec: HCC PhD student) http://design.open.ac.uk/dtrs7/

"Architectural Robotics: A New Paradigm for the Built Environment," Michael Philetus Weller and Ellen Yi-Luen Do, for EuropIA.11, 11th International Conference on Design Sciences & Technology, Digital Thinking in Architecture, Civil Engineering, Archaeology, Urban Planning and Design: Finding the Ways, (eds) G De Paoli, K Zreik and R Beheshti, September 19-21, 2007, Montreal, Quebec, Canada, http://europia11.free.fr/ (Weller is a Computational Design PhD student) pp 353-362. ISBN 978-2-909285-41-3

"The Dual Effects of Inspiration Sources in Design - An Empirical Study of Designer's use of Analogy in Design," Hui Cai and Ellen Yi-Luen Do, in IASDR, International Association of Societies of Design Research, Emerging Trends in Design Research, November 12-15, Hong Kong Polytechnic University School of Design, http://www.sd.polyu.edu.hk/iasdr/ (Cai is a CoA PhD student) (abstract and full paper review, acceptance rate 46%, 300/650) Pdf in proceedings - Nov 14, Session D Creativity, 11:45 am (3) Wednesday program

"Comparing Notes, a study of perceived concept importance between architectural design students and teachers," Hugo A Sheward and Ellen Yi-Luen Do, in IASDR, International Association of Societies of Design Research, Emerging Trends in Design Research, November 12-15, Hong Kong Polytechnic University School of Design, http://www.sd.polyu.edu.hk/iasdr/ (Sheward is a Design Computing PhD student) (abstract and full paper review, acceptance rate 46%, 300/650) Pdf in Nov 14, Session F Case Study 4:45 pm (1) Wednesday program

"Investigating how Physical Environment might help Enhance Children's Creativity," Atefe Makhmalbaf and Ellen Yi-Luen Do, in IASDR, International Association of Societies of Design Research, Emerging Trends in Design Research, November 12-15, Hong Kong Polytechnic University School of Design, http://www.sd.polyu.edu.hk/iasdr/ (Makhmalbaf CoA PhD student) (abstract and full paper review, acceptance rate 46%, 300/650) pdf in proceeding - Nov 14, Session D Creativity 3:15 pm (2) Wednesday program

"Tracking Concept Development Through Decomposing Sketching Processes," Sherif Morad Abdelmohsen and Ellen Yi-Luen Do, in IASDR, International Association of Societies of Design Research, Emerging Trends in Design Research, November 12-15, Hong Kong Polytechnic University School of Design, http://www.sd.polyu.edu.hk/iasdr/ (Abdelmohsen is a CoA Design Computing PhD student) (abstract and full paper review, acceptance rate 46%, 300/650) pdf in-Nov 14, Session D Creativity 3:15 pm (2) Wednesday program

"Environments for Creativity - A Lab for Making Things" Ellen Yi-Luen Do and Mark D Gross, in Shneiderman B, Fischer G, Giaccardi E, Eisenberg M (eds) Creativity and Cognition, pp 27-36, (New York, ACM Press) acceptance rate 23% (24/104) doi>10.1145/1254960.1254965 , http://portal.acm.org/citation.cfm?id=1254965

"Tools and Principles for Collaborative Design", Mark D Gross and Ellen Yi-Luen Do, in Tools for Support of Creativity in Collaboration Workshop http://sites.google.com/site/creativitysupport/ (4 pages) at ACM Creativity and Cognition Conference 2007 http://www.cs.umd.edu/hcil/CC2007/program/workshop-1.shtml. http://sites.google.com/site/creativitysupport/GrossDo.pdf

"On Context of Content: A Comparative Methodology Review of How HCI and Mass Communication Analyze Blogs and Social Media" Lo Ping Wei, Ellen Yi-Luen Do, Charles M. Eastman, for Work in Progress in CHI 2007, San Jose, April 28 – May 3. (Wei is a CoA Design Cognition PhD student) http://www.chi2007.org pp 2753-2758, 212/582, acceptance rate 36% , http://portal.acm.org/citation.cfm?id=1240866.1241074

TangiCAD: Tangible Interface for Manipulating Architectural 3D Models," Sherif Morad AbdelMohsen and Ellen Yi-Luen Do, at CAADRIA conference in Nanjing, China, April 19-22, http://www.caadria2007.org/ (2 stage, abstract and full paper review, acceptance rate 42%, 75/180) (Abdelmohsen, Design Computing PhD student) http://cumincad.scix.net/cgi-bin/works/Search?search=TangiCAD, and (CuminCAD login needed), http://cumincad.scix.net/cgi-bin/works/Show?caadria2007_029 or http://www.researchgate.net/publication/30867191_TangiCAD_Tangible_Interface_for_Manipulating_Architectural_3D_Models

Design, Art, Craft, Science: Making and Creativity, Mark D Gross and Ellen Yi-Luen Do, in Science of Design Symposium, by Humboldt University, March 22-24. http://www.humboldt.edu/~sod/symposium/, http://portal.acm.org/citation.cfm?id=1496636 and doi>10.1145/1496630.1496636

2006 "The Designosaur and the furniture factory" Yeonjoo Oh, Gabe Johnson, Mark D Gross, Ellen Yi-Luen Do, International Conference on Design Computing and Cognition (DCC 06), July 10-12, Eindhoven, Netherlands (Oh and Johnson are Computational Design PhD students) pp 123-140, http://www.springerlink.com/content/rm42g05417643r19/ DOI> 10.1007/978-1-4020-5131-9_7

"Flow Select: A Time-Based Selection and Operation Technique for Sketching Tools" Gabe Johnson, Mark D Gross, Ellen Yi-Luen Do, International Conference of Advanced Visual Interfaces (AVI 2006) in Venice, Italy, May 23-26, 2006 (Johnson is a PhD student) pp 83-86, http://portal.acm.org/citation.cfm?id=1133281

"Sketching Human Computer Interactions," Mark D Gross, Ellen Yi-Luen Do, CHI 2006 Conference Workshop of Sketching Nurturing Creativity: Commonalities in Art, Design, Engineering and Research, held April 22-27, 2006 at Montreal, Canada (Gross is faculty colleague)

2004 "Intelligent Critiquing of Design Sketches", Yeonjoo Oh, Ellen Yi-Luen Do, and Mark D Gross, in Making Pen-Based Interaction Intelligent and Natural, Randall Davis, James Landay, Tom Stahovich, Rob Miller, and Eric Saund (eds.), p.127 - 133, October 21-24, 2004, Arlington, Virginia, AAAI Press, Technical Report FS-04-06, ISBN 1-57735-217-3 (Oh is a Computational Design PhD student, Gross is faculty colleague) www.aaai.org/Papers/Symposia/Fall/2004/FS-04-06/FS04-06-020.pdf

"As If You Were Here - Intelligent Annotation in Space: 3D Sketching as an Interface to Knowledge-Based Design Systems", Ellen Yi-Luen Do and Mark D. Gross, in Making Pen-Based Interaction Intelligent and Natural, Randall Davis, James Landay, Tom Stahovich, Rob Miller, and Eric Saund (eds), p. 55-57, October 21-24, 20024, Arlington, Virginia, AAAI Press, Technical Report FS-04-06, ISBN 1-57735-217-3 http://www.aaai.org/Library/Symposia/Fall/2004/fs04-06-009.php

“Critiquing Freehand Sketches: A Computational Tool for Design Evaluation”, Yeonjoo Oh, Mark D Gross, Ellen Yi-Luen Do, in Visual and Spatial Reasoning in Design III [VR '04] p 105-120, John Gero, Terry Knight (eds.) at MIT, July 22-23. (Oh is Computational Design PhD student)

“Three R's of Design Computing”, Mark D Gross and Ellen Yi-Luen Do, for First International Conference on Design Computing and Cognition (DCC ’04), p. 613-632, Kluwer, at MIT, July 19-21, 2004 (accepted, 30/140, acceptance rate of 30/14 = 21%). http://www.springer.com/computer/ai/book/978-90-481-6650-3

“Between Worlds: Visions and View for the Future of CAD", Ellen Yi-Luen Do and Mark D Gross, in Generative CAD Systems, Edited by Omer Akin, Ramesh Krishnamurti, and Khee Poh Lam, pp. 61-78, Carnegie Mellon University (ISBN 0-9762941-0-9)

“Window Seat: visual experience with an interactive chair”, Yeonjoo Oh, Doo Young Kwon, Babak Ziraknejad, Ken Camarata, Ellen Yi-Luen Do, for G-CAD Symposium, July 12-15, Carnegie Mellon University

“FlexM: Designing a Physical Construction Kit for 3D Modeling”, Markus Eng, Ken Camarata, Ellen Yi-Luen Do, Mark D Gross, for G-CAD Symposium, July 12-15, Carnegie Mellon University (Eng: M Arch student)

“Expresso CAD: A System to Support the Design of Dynamic Structure Configurations”, Michael Philetus Weller, Ellen Yi-Luen Do, Mark D Gross, for G-CAD Symposium, July 12-15, Carnegie Mellon University

“Artifacts for Displaying Home Energy Use”, Ken Camarata, Drew Bregel, Ellen Yi-Luen Do, Mark D Gross, for G-CAD Symposium, July 12-15, Carnegie Mellon University

"Design Evaluator: Critiquing Freehand Sketches", Yeonjoo Oh, Mark D Gross, Ellen Yi-Luen Do, for G-CAD Symposium, July 12-15, Carnegie Mellon University

"Computational Tools for Lighting Visualization, Analysis and Design" Ellen Yi-Luen Do, Mark D Gross, in Workshop for Computer Aided Performance Based Architectural Design, for G-CAD Symposium, July 12-15, Carnegie Mellon University

"Toward Design Principles for Invisible Interfaces," Mark D Gross, Ellen Yi-Luen, Do, Workshop on Invisible and Transparent Interfaces, at Advanced Visual Interfaces, AVI 04, Gallipoli, Italy, May 25-28. http://www.di.uniba.it/~avi2004/

"People Pretzel: A Computationally Enhanced Play Board for Group Interaction," Orit Shaer, Babak Ziraknejad, Ken Camarata, Ellen Yi-Luen Do, Mark D. Gross, in Pervasive Computing 2004, Vienna, Austria, April 18-23. Hot Spot Paper, PP. 357-361 (Shaer and Camarata are PhD students, Ziraknejad is Masters student, Gross is faculty colleague) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.170.4533

2003 "MouseHaus Table: A Physical Interface for Urban Design" Chen-Je Huang, Ellen Yi-Luen Do and Mark D. Gross, in UIST, User Interface Software and Technology, Conference Supplement, p 41-42, Vancouver, November 2-5, http://www.acm.org/uist/ (Huang is a graduate student, Gross is faculty colleague) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.5.2427

"Space Maker: Creating Space by Sketching It," Ming-Chun Lee and Ellen Yi-Luen Do, in annual conference of ACADIA, Association of Computer Aided Design in Architecture, pp. 311-323, Ball State University Oct 23-26, http://www.acadia.org (Lee is a PhD student, I was the chair of Lee's Master Thesis. Acceptance rate, 39 paper out of 59 submissions out of 112 = 34-66%, 2-stage double blind review). http://cumincad.scix.net/cgi-bin/works/Search?search=Lee+Ming-Chun

"LiQuID: Lighting Quality for Design," James Peng, Ben Liao, Daniel Glaser, John Canny, Ellen Yi-Luen Do, in annual conference of ACADIA, Association of Computer Aided Design in Architecture, pp. 251-261, Ball State University Oct 23-26, http://www.acadia.org (Glaser is a PhD student, Canny is faculty colleague, Peng and Liao are undergraduate students. Acceptance rate, 39 paper out of 59 submissions out of 112 abstract submission = 34-66%, 2 stage double blind review)

"Developing Architectural Lighting Representations," Daniel C. Glaser, Roger Tan, John Canny, Ellen Yi-Luen Do, in InfoVis, IEEE Symposium on Information Visualization - Seattle, Oct 19-21, pp. 241-248. http://www.infovis.org/infovis2003/ (Glaser, a PhD student, Canny, faculty colleague, Tan, undergraduate) http://www.computer.org/portal/web/csdl/doi/10.1109/INFVIS.2003.1249032

"The Junk Mail to Spam Converter," Mike Weller, Mark D Gross, Jim Nicholls and Ellen Yi-Luen Do, in International Conference on Ubiquitous Computing, Adjunct Proceedings, pp. 229-230, October 12-15 (Weller is a graduate student, Gross, Nicholls are faculty colleagues. Acceptance rate 42/57=73%)

"LightSketch: a sketch modeling program for lighting analysis" for CAAD Futures 2003, April 28-30, October 13-15, Taiwan, Chiu, Tsou, Kvam, Morozumi, and Jeng (eds.) ISBN 1-4020-1210-1, Kluwer Publisher, pp. 371-382. Daniel C Glaser, Bonnie Tai and Ellen Yi-Luen Do (Glaser is a PhD student, Tai is an undergraduate student, paper acceptance rate 61/116 = 53%) http://www.caadfutures.org/proceedings_03.htm

"LightPen: a sketching system for lighting design in a 3D virtual environment", for CAAD Futures 2003, April 28-30, October 13-15, Taiwan, Chiu, Tsou, Kvam, Morozumi, and Jeng (eds.) ISBN 1-4020-1210-1, Kluwer Publisher, pp. 327-338. Thomas Jung, Mark D Gross and Ellen Yi-Luen Do (Jung is research assistant, Gross is faculty colleague, paper acceptance rate 61/116 = 53%) http://www.caadfutures.org/proceedings_03.htm

"SPOT! Fetch Light! Interactive navigable 3D visualization of direct sunlight," Sebastien Bund and Ellen Yi-Luen Do, in eCAADe, Education and Research in Computer Aided Architectural Design in Europe, Graz, Austria, pp. 117-124, Sep 17-20, http://www.ecaade2003.tugraz.at/ (Bund is a graduate student, acceptance rate 121/183 = 66%) http://dx.doi.org/10.1016/j.autcon.2004.07.007

"Scythe And Sew: A Tool For Creating Meaningful Patterns In Lighting Simulation Data," biannual IBPSA International Conference and Exhibition on Building Simulation, August 11-14, in Eindhoven, Netherlands. Ben Liao, James Peng, Osbert Feng, Dan Glaser, John Canny, and Ellen Yi-Luen Do. (Liao, Peng and Feng are undergraduate students, Glaser is a PhD candidate, Canny is a Computer Science faculty at UC Berkeley) www.inive.org/members_area/medias/pdf/Inive/IBPSA/UFSC892.pdf

"MouseHaus Table: A Physical Interface for Urban Pedestrian Study," Chen-Je Huang, Ellen Yi-Luen Do and Mark D. Gross, for CAAD Futures 2003, Poster, Taiwan, (Huang is Master of Science student, Gross is faculty colleague). In Digital Design: Research and Practice: CAAD Futures 2003 Poster Papers proceeding, April 28-30, as well as in CAAD Talks 3, Digital Design Education, Mao-Lin Chiu ed. Pp. 170-171. Garden City Publisher, Taipei, Taiwan, ISBN 986770520-3

"LiQuID: A tool for understanding Lighting Quality In 3D architectural Design," James Peng, Ben Liao, Daniel Glaser, John Canny, Ellen Yi-Luen Do, for CAAD Futures 2003, Taiwan, (Peng, Liao are undergraduate students, Glaser is PhD student, Canny is faculty colleague). In Digital Design: Research and Practice: CAAD Futures 2003 Poster Papers proceeding, as well as in CAAD Talks 3, Digital Design Education, Mao-Lin Chiu ed. Pp. 178-179. Garden City Publisher, Taipei, Taiwan, ISBN 986770520-3

"Inspired by Eisenman: ArchiDNA, a creative shape generative system," Doo Young Kwon and Ellen Yi-Luen Do, for CAAD Futures 2003, Taiwan, April 28-30 (Kwon is Master of Science student). In Digital Design: Research and Practice: CAAD Futures 2003 Poster Papers proceeding, as well as in CAAD Talks 3, Digital Design Education, Mao-Lin Chiu ed. Pp. 180-181. Garden City Publisher, Taipei, Taiwan, ISBN 986770520-3

"SPOT: a 3D Interactive Navigable Environment for Direct Sunlight Simulation," Sebastien Bund and Ellen Yi-Luen Do, for CAAD Futures 2003, Taiwan, April 28-30 (Bund is a graduate student and research assistant). In Digital Design: Research and Practice: CAAD Futures 2003 Poster Papers proceeding, as well as in CAAD Talks 3, Digital Design Education, Mao-Lin Chiu ed. Pp. 174-175. Garden City Publisher, Taipei, Taiwan, ISBN 986770520-3

"Window Seat: Interactive Chairware for Experiencing Virtual Spaces," Yeonjoo Oh, Doo Young Kwon, Babak Ziraknejad, Jennifer Lewis, Ken Camarata, Ellen Yi-Luen Do, and Mark D Gross. (Oh, Kwon, Ziraknejad are graduate students, Camarata and Gross are faculty colleagues). In Digital Design: Research and Practice: CAAD Futures 2003 Poster Papers proceeding, as well as in CAAD Talks 3, Digital Design Education, Mao-Lin Chiu ed. Pp. 188-189. Garden City Publisher, Taipei, Taiwan, ISBN 986770520-3

2002 "Multi-Resolution Sky Visualization: daylight design and design tools", Daniel C Glaser, Richard Warfield, Karen Carrier, Alex Lam, YingYing Yong, Ellen Yi-Luen Do, John Canny, Susan Ubbelohde, in ACADIA 2002, Los Angeles, October 24-27. Pp. 251-261 (Glaser is a PhD student, I am Co-Chair of Glaser's dissertation committee, Canny and Ubbelohde are faculty colleagues, others are undergraduate and graduate students working under Glaser's supervision)

"Physical Computing, a design studio that bridges art, science, and engineering", Ken Camarata, Mark D Gross and Ellen Yi-Luen Do, in ICLS, The Fifth International Conference of the Learning Sciences, October 23-26, Seattle. Pp 520-521(Camarata, research assistant, former M. Arch. Do was Camarata's Thesis chair.)

"Sketching Annotations in a 3D Web Environment", in CHI 2002, Conference on Human Factors in Computing Systems, Association of Computing Machinery, ACM Press, pp. 618-619, April 23-25, Minneapolis. Thomas Jung, Mark D. Gross and Ellen Yi-Luen Do (Jung is a research assistant, paper acceptance rate is 32%, 62 short talks, 60 interactive posters out of 374 submissions)

"Navigational Blocks: Tangible Navigation of Digital Information", CHI 2002, Conference on Human Factors in Computing Systems, Association of Computing Machinery, ACM Press, pp. 752-753, Ken Camarata, Ellen Yi-Luen Do, Mark D. Gross and Brian R. Johnson. (Camarata is a research assistant, former M. Arch student, Gross and Johnson are faculty colleagues on Camarata's Thesis committee, Do is committee chair, paper acceptance rate is 32%, 62 short talks, 60 interactive posters out of 374 submissions)

"Digital Sandbox: integration of design and analysis in digital earth-forming", Ellen Yi-Luen Do, in Artificial Intelligence in Design, (ed.) John Gero, Kluwer Academic Publisher, July 15-17, Cambridge University, UK. pp. 165-188 (Blind review. Acceptance rate 30%, 28 papers accepted)

"Functional and Formal Reasoning in Architectural Sketches", Ellen Yi-Luen Do, in Sketch Understanding, AAAI Spring Symposium, AAAI Technical Report SS-02-08, March 25-27, Stanford University, AAAI (American Association for Artificial Intelligence) Press, Menlo Park, California, (eds. Randall Davis, James Landay, and Tom Stahovich) pp. 37 - 44.

"Annotating and Sketching on 3D Web Models", Thomas Jung, Mark D Gross and Ellen Yi-Luen Do, International Conference on Intelligent User Interfaces (IUI), ACM Press pp. 95-102, January 13-16, San Francisco (Acceptance rate 30%, 22 papers out of 71 submissions)

"Navigating Information Space with Tangible Media", January 13-16, San Francisco, 2002 International Conference on Intelligent User Interfaces (IUI), ACM press, Ken Camarata, Ellen Yi-Luen Do, Brian R Johnson and Mark D Gross, pp. 31-38 (Acceptance rate 30%, 22 papers out of 71 submissions)

2001 "Graphics Interpreter of Design Actions: the GIDA system of diagram sorting and analysis", Ellen Yi-Luen Do, in Computer Aided Architectural Design Futures (CAAD Futures 2001), Bauke de Vries, Jos P. van Leeuwen, Henri H. Achten (eds), Pp. 271-284. July 2001, Eindhoven, the Netherlands, Kluwer Academic Publishers Acceptance rate 48-50% (48 -58 papers, from 67 abstracts, selected from 167 submissions, double review)

"VR Sketchpad: Creating Instant 3D Worlds by Sketching on a Transparent Window", Ellen Yi-Luen Do, in, CAAD Futures 2001, Bauke de Vries, Jos P. van Leeuwen, Henri H. Achten (eds), pp.161-172, July, 2001, Eindhoven, the Netherlands, Kluwer Academic Publishers. Acceptance rate 48-50% (48 -58 papers, from 67 abstracts, selected from 167 submissions, double review)

"Space Pen, Annotation and Sketching on 3D Models on the Internet", Thomas Jung, Mark D. Gross and Ellen Yi-Luen Do, in CAAD Futures 2001, Bauke de Vries, Jos P. van Leeuwen, Henri H. Achten (eds), pp.257-270, July, 2001, Eindhoven, the Netherlands, Kluwer Academic Publishers. Acceptance rate 48-50% (48 -58 papers, from 67 abstracts, selected from 167 submissions, double review)

"The Design Amanuensis, An Instrument for Multi-modal Design Capture and Playback", Mark D. Gross, Ellen Yi-Luen Do, and Brian R. Johnson, CAAD Futures 2001, Bauke de Vries, Jos P. van Leeuwen, Henri H. Achten (eds), pp. 1-13, July 2001, Eindhoven, the Netherlands, Kluwer Academic Publishers. Acceptance rate 48-50% (48 -58 papers, from 67 abstracts, selected from 167 submissions, double review)

"Smart Objects: Constraints and Behaviors in a 3D Design Environment", Dustin Eggink, Mark D. Gross, Ellen Yi-Luen Do, in Proceedings of 19th Conference on Education in Computer Aided Architectural Design in Europe (eCAADe), Helsinki, August 31, 2001, pp. 460-465. (Eggink is a Master student, paper blind reviewed)

"Sketching Interfaces for Conceptual Design and Analysis in Architecture", Ellen Yi-Luen Do, in CHI Workshop, Tools, Conceptual Frameworks, and Empirical Studies for Early Stages of Design. April 2001, Seattle Acceptance rate 50%. (12 out of 24 submissions)

2000 "Immersive Redliner: Collaborative Design in Cyber Space", Thomas Jung and Ellen Yi-Luen Do, in ACADIA 2000, Associations of Computer Aided Design in Architecture National Conference (October 19-22), Eternity, Infinity and Virtuality in Architecture, Catholic University, Washington D.C. (eds) Mark Clayton, Guillermo P. Vásquez de Velasco. pp. 185-194 (Jung is a research assistant, paper acceptance rate 57%, 24 out of 42).

"Sketch that Scene for me: Creating Virtual Worlds by Freehand Sketching", Ellen Yi-Luen Do, in eCCADe 2000 (June 22-24) Education in Computer Aided Architectural Design in Europe (eCAADe) and IKM (International Colloquium on the Application of Computer Science and Mathematics in Architecture and Civil Engineering), pp. 265-268, Dirk Donath (ed) Weimar, Germany

"Beyond the low-hanging fruit: Information Technology in Architectural Design, past, present and future", Mark D. Gross, Ellen Yi-Luen Do and Brian R. Johnson, in ACSA Technology Conference, pp. 100-106. William Mitchell and John Fernandez (eds), MIT. (July 14-17)

1999 "Digital Media and the Language of Vision", Bennett Neiman and Ellen Yi-Luen Do, in Media and Design Process, Proceedings of Association of Computer Aided Design in Architecture (ACADIA) 1999 Conference, pp. 70-80, O. Ataman & J. Bermudez (eds.) Salt Lake City - Snowbird, Utah (October, '99) Acceptance rate 25-30%. (20 papers out of 65-80 papers)

"Immersive redlining and annotation of 3D design models on the Web". Thomas Jung, Mark D. Gross and Ellen Yi-Luen Do, in Computers in Building (June, '99) Proceedings of the CAAD Futures '99 Conference, G. Augenbroe & C. Eastman (eds.) pp. 81-98. Acceptance rate 20% (25 papers from 55 abstracts, selected from 105 submissions, double review)

"Drawing and Design Intentions -- an investigation of freehand drawing conventions in design," Ellen Yi-Luen Do, Mark D. Gross, and Craig M. Zimring, in Design Thinking Research Symposium '99 (April, '99). W. Porter & G. Goldschimdt (eds.) pp. 1-10

"Sketches and Their Functions in Early Design: A Retrospective Analysis of Two Houses". Bennett Neiman, Ellen Yi-Luen Do, and Mark D. Gross, In Design Thinking Research Symposium '99 (April, '99) W. Porter & G. Goldschimdt (eds.) pp. 255-266

"Integrating Digital Media in Design Studio: Six Paradigms". in ACSA '99 (March, '99) Annual National Conference Proceedings for American Collegiate Schools of Architecture. Mark D. Gross and Ellen Yi-Luen Do, pp. 144-148

1997 "The Design Studio Approach: Learning Design in Architecture Education". In Design Education Workshop, J. Kolodner & M. Guzdial (eds.) EduTech/NSF, College of Computing, Georgia Institute of Technology, September 8-9, 1997, Atlanta, Ellen Yi-Luen Do and Mark D. Gross

"Computability of Design Diagrams -- an empirical study of diagram conventions in design" In CAAD Futures 97, pp. 171-176, edited by R. Junge, Munich. Kluwer. (August 3-6. 1997, Munich. (Acceptance rate 20-25%)

"Tools for Visual and Spatial Analysis of CAD Models -- implementing computer tools as a means to thinking about architecture". Ellen Yi-Luen Do and Mark D. Gross, in CAAD Futures 97, pp. 189-202, R. Junge (ed.). Munich, Germany, Kluwer Publisher (Acceptance rate 20-25%)

"Collaboration and Coordination in Architectural Design: approaches to computer mediated team work" in GVU/NIST workshop on Collaborative Design, TeamCAD 97, Atlanta, GA. Mark D. Gross, Ellen Yi-Luen Do, Raymond J. McCall, Wayne V. Citrin, Paul Hamill, Adrienne Warmack, Kyle S. Kuczun, pp. 465-473

"Inferring Design Intention from Sketches -- an investigation of freehand drawing conventions in design". Ellen Yi-Luen Do and Mark D. Gross, in CAADRIA '97, edited by Y. L. Liu & J. Y. Tsou Taipei: Hu's Publishing, pp. 217-227.

1996 "The Right Tool at the Right Time -- drawing as an interface to knowledge based design aids." Ellen Yi-Luen Do, in Proceedings, National Conference, Association for Computer Aided Design in Architecture 1996, (ACADIA 96), Filiz Ozel and Patricia McIntosh (eds.), University of Arizona, Tucson, pp. 191-199. (Acceptance rate 30 - 33%)

"Ambiguous Intentions -- a paper-like interface for creative design." Mark D. Gross and Ellen Yi-Luen Do, in Proceedings, Ninth Annual Symposium for User Interface Software and Technology, (UIST 96), pp. 183-192. Marc Brown and Ramana Rao (eds.), Seattle, ACM Press, New York (Acceptance rate is 25 - 30%).

"Reasoning about Cases with Diagrams", Ellen Yi-Luen Do and Mark D. Gross, in Third Congress on Design Computing, A/E/C '96, Anaheim, American Society of Civil Engineers, Jorge Vanegas and Paul Chinowsky (eds.), pp. 314-320, ASCE.

"Drawing as a Means to Design Reasoning" Ellen Yi-Luen Do and Mark D. Gross, in Visual Representation, Reasoning and Interaction in Design Workshop, Artificial Intelligence in Design '96, 22-27, June, 1996, Stanford University.

"Demonstrating the Electronic Cocktail Napkin: a paper-like interface for early design." Mark D. Gross and Ellen Yi-Luen Do, In CHI 96, Conference on Human Factors in Computing Systems, Conference Companion, Addison Wesley: pp. 5-6. Vancouver, British Columbia, Canada, ACM Press, New York (Acceptance rate is 15-20%).

"Structuring cases in a case-based design aid." Craig Zimring and Sonit Bafna, and Ellen Yi-Luen Do, in Third Congress on Design Computing, Anaheim, A/E/C '96, American Society of Civil Engineers, Jorge Vanegas and Paul Chinowsky (eds.), pp. 308-313, ASCE.

1995 "What's in a diagram that a computer should understand." Ellen Yi-Luen Do, in The Global Design Studio, Proceedings of the Sixth International Conference on Computer Aided Architectural Design Futures (CAAD Futures 95), Milton Tan and Robert Teh (eds.), pp. 469-482, National University of Singapore, Singapore 1995. (Acceptance rate is 30%).

"Diagram Query and Image Retrieval in Design." Mark D. Gross and Ellen Yi-Luen Do. In 2nd IEEE International Conference on Image Processing, Washington, D. C., IEEE Computer Society Press, pp. 308-311, Vol. 2

"Shape based reminding as an aid to creative design." Ellen Yi-Luen Do and Mark D. Gross, in The Global Design Studio, Proceedings of the Sixth International Conference on Computer Aided Architectural Design Futures (CAAD Futures 95), Milton Tan and Robert Teh (eds.), pp. 79-90, National University of Singapore, Singapore 1995. (Acceptance rate is 30%).

"Supporting Creative Architectural Design with Visual References." Mark D. Gross and Ellen Yi-Luen Do, in Computational Model of Creative Design, John Gero and Fay Sudweeks Tan (eds.), pp. 37-58, Key Centre for Design Computing, University of Sydney, Australia. (Acceptance rate is 50%).

"Drawing Analogies: Finding Visual References by Sketching." Ellen Yi-Luen Do and Mark D. Gross. In ACADIA 95, Computing in Design, enabling, capturing and sharing ideas in Seattle, Association of Computer Aided Design In Architecture, pp. 35-52. (Acceptance rate 25-30%, 20 out of 65-80 papers)

"Supporting Case-Study Use in Design Education: A Computational Case-Based Design Aid for Architecture" Craig Zimring, Ellen Yi-Luen Do, Eric Domeshek, and Janet Kolodner, in A/E/C '95, American Society of Civil Engineers pp. 308-313

1994 "Using post-occupancy evaluation to aid reflection in conceptual design: Creating a case-based design aid for architecture", Craig Zimring, Ellen Yi-Luen Do, Eric Domeshek, and Janet Kolodner, in Design Decision Support System, Harry Timmermans (ed),Vaals, Switzerland. http://cumincad.scix.net/cgi-bin/works/Search?search=Domeshek and (CuminCAD login needed) http://cumincad.scix.net/cgi-bin/works/Show?ddss9507

"Using Diagrams to Access a Case Base of Architectural Designs" Mark D. Gross, Craig Zimring and Ellen Yi-Luen Do, in J. Gero (eds.), Artificial Intelligence in Design '94, pp. 129-144, Lausanne, Kluwer Publisher. (Blind review, 3 reviews each paper. Acceptance rate 33%) (Amazon page)

GRANTS, AWARDS, SCHOLARSHIP, HONORS

2015 SIGCHI Best of CHI Honorable Mention Award (top 5%), New Interaction Tools for Preserving an Old Language, Beryl Plimmer, Liang He, Tariq Zaman, Kasun Karunanayaka, Alvin W. Yeo, Garen Jengan, Rachel Blagojevic, Ellen Yi-Luen Do, in CHI '15: Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, pp. 3493 - 3502, ACM Press, NY, 2015, doi>10.1145/2702123.2702339, http://dl.acm.org/citation.cfm?id=2702123.2702339, listed on the Best of CHI 2015 web site: http://chi2015.acm.org/program/best-of-chi/

Get Creative with Learning: Word Out! A Full Body Interactive Game, by Felicia Clare Paul, Christabel Goh and Kelly Yap, (class project from Prof. Ellen's class) for CHI 2015 Student Game Competition, won the Top prize for the category of Games for a Purpose. CHI EA '15, pp. 81-84, doi>10.1145/2702613.2728657

insight: Kick-starting Communications for Elderlies Ageing in Place, by Loh Zhide, Edmund Zhang, Lim Zhi Ying, (class project from Prof. Ellen's class) for CHI 2015 Student Design Competition, was among the top 12 finalist, selected from the 70 submissions around the world (17.1% acceptance). CHI EA '15, p. 25-30, doi>10.1145/2702613.2726954

2014 Second Place in the Stanford Center on Longevity Design Challenge, students in Ellen's class Kok Hua Bin, Yang Tzuhsuan, with researchers R.A. Nimesha Ranasinghe, Lee Kuan-yi and intern Gajan Suthokumar won the 2nd Place in the Stanford Center on Longevity Design Challenge with their project entry "Taste +". http://longevity3.stanford.edu/design-challenge-winners-announced/

Keio-NUS Connective Ubiquitous Technology for Embodiments (CUTE) Center, S$ 10 million, duration 2009-2016, supported by the Singapore National Research Foundation under its International Research Center Keio-NUS CUTE Center @ Singapore Funding Initiative and administered by the IDM Program Office, Singapore (PI: Ellen Yi-Luen Do, April 2013 – March 2015) http://cutecenter.nus.edu.sg

VR MedSIM, Virtual Reality Medical Simulation, including Virtual Interactive Human Anatomy – VIHA and Virtual Interactive Simulation Environment – VISE, with Centre for Healthcare Simulation, Yong Loo Lin School of Medicine, National University of Singapore, PI: Suresh Pilai (MedSchool), Ellen Yi-Luen Do, Weiquan Lu (CUTE) $ 3.04 M SGD (Sep 2014 – Aug 2017)

Silver Sense, a Smartphone Application for Elderly Wellness Monitoring, Active Ageing Council, People's Association, $20k SGD, PI: Ellen Yi-Luen Do (July 2014 – March 2015)

3D Display Application Development for Augmented Learning, with Tohoku University, Research Institute of Electrical Communication (RIEC), PI: Ellen Yi-Luen Do, $18.37 M Yen ($ 200k SGD)

2013 Development of the location-aware variable message sign for route bus transportation, Mitsubishi Heavy Industries (MHI), PI: Masaaki Sato (CUTE) (1,215000 JPY =S$15,000)

"LORDS: Location ORiented Description Service based on Smartphone Probe Vehicle System" for research and development of location and digital contents distribution system, and field test. ($2.6M JPY = $28k SGD)

2011 ACADIA Award for Innovative Research, award ceremony held in Banff, Canada at the annual International Conference for Association of Computer Aided Design in Architecture (ACADIA 2011) Oct 11 – 16, http://www.acadia.org/acadia2011/acadia.html, http://www.acadia.org/previous_recipients.htm

SHB: Small: InteCog System: ClockReader+ and CogStim Game for Screening and Preventing Cognitive Impairment, National Science Foundation, Smart Health and Wellbeing, $102,000, (notification 6/5/2011, for 9/2011 – 8/2012) Proposal ID: IIS-1117665, submitted 12/7/2010, PI: Ellen Yi-Luen Do http://www.nsf.gov/pubs/2010/nsf10575/nsf10575.htm, http://nsf.gov/awardsearch/showAward.do?AwardNumber=1117665

Understanding the Role of Healthcare Facility Design in the Acquisition of Healthcare Associated Infections ($225,000, submitted 6/6/2011, funded, notification 9/2011) to Research Triangle International (RTI) to AHRQ – Agency for Healthcare Research and Quality. PIs: Craig Zimring, Ellen Yi-Luen Do, David Cowan, Jennifer DuBose(Sep 2011 – Aug 2012)

Workshop: Graduate Student Symposium at ACM Creativity & Cognition (C&C 2011) Conference National Science Foundation, CISE Information and Intelligent Systems Division, $22,020 (Award Id: IIS-1137527, awarded 5/2/2011 5/1/2011 – 4/30/2012), PI: Ellen Yi-Luen Do http://nsf.gov/awardsearch/showAward.do?AwardNumber=1137527

IMC System – Intelligent Mini-Cog Test For Mild Cognitive Impairment, to Emory ADRC/ACTSI Pilot Grant ($23,754, funded 2/11), PIs. Ellen Yi-Luen Do, James Lah (Emory Neurology) http://www.actsi.org/areas/tracking/documents/news/ADRC_ACTSI_Pilot_Grant_Announcement_4_Nov_2010_v1-0.pdf

ClockReader^{+} – A Computerized Neuropsychological Diagnosis Tool for Detecting and Monitoring Cognitive Impairment, funded by Korea Institute for Advancement of Technology (KIAT), Seoul, Korea, PI: Ellen Yi-Luen Do, 40,000,000 KRW = $34,724 (funded 12/22/2010, Global Industry-Academia Cooperation Program, http://www.kiat.or.kr

First Prize, Hyungsin Kim, my PhD student on the ClockReader research project won Gold Medal **(**first prize) at ACM CHI 2011 Conference's Student Research Competition (SRC) May 7-12, in Vancouver. http://src.acm.org/winners.html, http://portal.acm.org/citation.cfm?id=1979512

Second Prize, Talk to the Hand" by Halley Profita and Scott Gilliland was awarded 2nd Overall, and 2nd Concept in the ISWC (International Symposium on Wearable Computers) Design Competition, June 12-15, in San Francisco. Co-located with pervasive conference. Profita is MID Student just graduated. I was her thesis advisor. Gilliland was a former MS HCI student in my Onsite Center class. http://www.iswc.net/iswc11/ & http://pervasiveconference.org/2011/program.html#ISWCSessions

2010 Best Paper Gold Award - "Move, Beam, and Check! Imagineering Tangible Optical Chess on An Interactive Tabletop Display" Andy Wu, David Joyner and Ellen Yi-Luen Do, in 7th International Conference on Advanced in Computer Entertainment Technology, Nov 17-19, Taipei, Taiwan, http://ace2010.ntpu.edu.tw/award.html (Wu and Joyner are current PhD student, the project started in my Design Games class)

2009 "CHEROC – Comprehensive Health Encounter Room for On-Site Clinics – developing research, analysis and virtual library of best practices" to Comprehensive Health Services, PI: Ellen Yi-Luen Do ($155,000, funded)

ClockReader - Investigating Automated Recording and Analysis of Clock Drawing Test for Detecting Cognitive Impairment, PI: Ellen Yi-Luen Do, Co-PI: Allan Levey (Emory Center for Neurodegenerative Disease and Alzheimer's Disease Center, Emory University) $34,100 funded, August 7, 2009
http://www.hsi.gatech.edu/research/seedgrants/profile.php?gid=99

Helping Hand - A Light-Weight Glove That Locates and Identifies Objects for the Visually Impaired, http://www.hsi.gatech.edu/research/seedgrants/profile.php?gid=131, PI: Ellen Yi-Luen Do, Co-PI: David Ross (Atlanta VA Rehab R&D Center of Excellence in Vision Loss), Marc Lawson (MS HCI), $50,000 funded, August 7, 2009
(* Do received 2 HSI Seed Grant out of 8 selected from 40 submissions, 20% acceptance rate)
http://www.hsi.gatech.edu/research/seedgrants/

2008 "Mobile Music Touch: A Lightweight Wearable Haptic System For Hand Rehabilitation Through Passive Learning of Musical Playing Skills," Center for Music Technology, Georgia Institute of Technology, granted by Director Gil Weinberg, PIs: Ellen Yi-Luen Do, Thad Starner, Deborah Backus, Kevin Huang [granted September 2008, for Spring 2009, $10,0000 GRA)

"Interactive Waiting Room" concept projects sponsorship from NCR, [granted October 23, 2008, $12,000 gift], PI: Ellen Yi-Luen Do (Health Systems Institute and GVU Center)

"Emergency Room of the Future" a class sponsored by Perkins + Will, [granted September 2008, $10,000 gift] PIs: David Cowan (Health Systems Institute), Craig Zimring and Ellen Yi-Luen Do

2007 "Pediatric Center of the Future" a class sponsored by Perkins + Will, [granted August 2007, $25,000 gift] PIs: David Cowan (Health Systems Institute), Craig Zimring and Ellen Yi-Luen Do

"Building High Performance Healthcare: Physical Environment" by Robert Wood Johnson Foundation, [granted January 2007, $749,896] PIs: Craig Zimring, Godfried Augenbroe, Ellen Yi-Luen Do, Sheila Bosch, Jennifer DuBose

"Designing Healthcare of the Future, Multi-Disciplinary Approaches to Applying Innovation in the Design of a Pediatric Healthcare Center" [granted September 2007, $50,000] by Health Systems Institute Seed Grant, PIs: Craig Zimring, Ellen Yi-Luen Do, David Cowan (Health Systems), Gerri Lamb (Emory Nursing) and Julia Jones (Children's at Hughes Spalding)

2006 "Healthcare Design Web" by Center for Health Design, [granted October 2006, $183,798] PIs: Craig Zimring, Ellen Yi-Luen Do

"Patient Room of the Future," a class sponsored by Steelcase [granted August 2006, $25,000 gift] PIs: Ellen Yi-Luen Do, Craig Zimring

"Ambient Devices for Home Energy Awareness" for Creating Energy Options (CEO) Program, Strategic Energy Initiatives, Georgia Institute of Technology [granted April 14, $ 6,000 and one year GRA tuition] PI: Ellen Yi-Luen Do

2005 Environmental Award, Carnegie Mellon Spring Carnival, Studio X, "Home 2020, Imagine the Future, Build it Today!" http://code.arc.cmu.edu/home-2020/

"Thinking with Your Hands", A SURE Thing (Summer Undergraduate Research Experience) [$4,000 to support Carlie Roberts from Grove City College to work at Carnegie Mellon University], PI: Ellen Yi-Luen Do

2004 "Thinking with your Hands: Making 3-Dimensional Design and Production More Intuitive", FY05- PITA_ICES Research Seed Fund [granted Dec. 2004, $44,224], Pennsylvania Infrastructure Technology Alliance (PITA), Institute for Complex Engineered Systems (ICES). PI: Ellen Yi-Luen Do, Co-PI: Susan Finger, Mark D Gross.

2003 "Interactive Tools for Visual and Spatial Reasoning," Summer Undergraduate Research Program (SURP), [$3,400] sponsored by Washington NASA Space Grant Consortium, PI: Ellen Yi-Luen Do

"Evaluating, Developing Tablet PC Applications," evaluation pack and gift from Microsoft Corporation, Learning Sciences, Research Enablement [granted April 2003, 2 Toshiba Tablet PCs, $ 2,400 each, USB hubs and software development kit and programmer's guide, $ 3,138.89]. PI: Ellen Yi-Luen Do

Jeannette and David McKinley Faculty Award [$ 2,500] for “Design and Implementation of Self-configuring Building Blocks”

2002 “Enhancing Spatial Reasoning and Visual Cognition for Early Science and Engineering Students with 'Hands-on' Interactive Tools and Exercises” for NSF (National Science Foundation) CCLI (Courses, Curriculum and Laboratory Improvement) Program, NSF-01-58 [granted March 15, DUE-0127579. $ 74,984.00] PI: Ellen Yi-Luen Do

“Learning Via Distributed Dialogue: Livenotes and Handheld Wireless Technology”, for CILT (Center for Innovative Learning Technologies), Seed Grant (www.cilt.org), PI: John Canny, University of California at Berkeley, Co-PI: Ellen Yi-Luen Do, project participants include Rogers Hall, Alastair Iles, Dan Glaser, Matthew Kam, and Christopher Wu [$ 9,990, granted July, 2002]

ArchiCAD software, [$ 7,500], Graphicsoft U.S. Inc. Software Grant

College Group Project Award [$ 200], for Fall 2001 Studio, Interdisciplinary Collaboration of Northgate Redevelopment Charrette, http://courses.washington.edu/studio01/charette

2001 Jeannette and David McKinley Faculty Award [$ 2,500] for “Designing the Interface and Communication Control for the Future Home Environments”

The Varey Award [$ 1,250] for “transforming 2-D Drawings of Urban Spaces into 3-D Virtual Reality” (Undergraduate Research Award for Brian Porter), PI: Ellen Yi-Luen Do

Best Paper of the Year 2000, Third Prize, Journal of Computers & Graphics, for the paper “Drawing on the back of an envelope” in Computers and Graphics, Vol. 24, No. 6, pp 835-849, Calligraphic Interface, Joaquim A Jorge and Ephraim Glinert (eds) New York, Pergamon Press. Mark D. Gross and Ellen Yi-Luen Do. (total 6 issues, 80 papers in year 2000)

2000 “Design Education for the Future,” Tools for Transformation Grant, University of Washington [granted August 1, $ 328,248], for information infrastructure upgrade of Architecture Hall and the experimental Digital Design Studio, Lead Author. (Co-authors: Department Chair Jeffrey K. Ochsner, colleagues: Mark D. Gross and Brian R. Johnson)

1999 “Leadership in Design Computing”, for Department of Architecture, College of Architecture and Urban Planning, University of Washington, (co-PI with Mark D. Gross). Includes Architecture Hall remodeling ($ 200,000), capital equipment, supplies and support for physical improvement, and creation of Digital Design Suite including the Digital Design Studio, Seminar Room, Faculty Offices, and the Design Computing Research Lab (3 year operation seed funds $ 255,508).

1998 SmarterKids Grant, SmarterKids Foundation [$ 1,000], Equipment Grant.

1997 Cognitive Science Fellowship, HCIC (Human Computer Interaction Consortium), University of Colorado, Boulder, Travel Grant

NSF, IIS 96-19856, “The Back of an Envelope: An Architecture for Knowledge Based Design Environment” [$ 323,742], as senior personnel, PI: Mark D Gross

1996 AID ‘96 Scholarship, Fourth International Conference on Artificial Intelligence in Design, Travel Grant

1995 HI ‘95 Scholarship, Travel Grant
Key Centre of Design Computing, University of Sydney
International Conference on Computational Models of Creative Design

1994 SGAICO Scholarship (for AI in Design), Travel Grant
Swiss Group for Artificial Intelligence and Cognitive Science

Outstanding Teaching Award

College of Architecture, Georgia Institute of Technology

Cognitive Science Student Travel Grant
College of Computing, Georgia Institute of Technology

1990 Scholarship for Outstanding Youth, Harvard Club of Republic of China

Honorable Mention in annual research conference
National Conference in Architecture & Urban Studies, Taiwan, ROC

1989 First Prize Design
Competition of Hsi-Chih Commercial Building, Taipei, Taiwan ROC
(with C.H. Ho International, architects and Planners)

1988 First Prize Thesis design Project
A Spatial Constitution of Contemporary Settlers Community (joint work with Yu-Hua Wang)

NCKU Alumni Association Design Award
National Cheng Kung University Alumni Association

National Outstanding Youth
China Youth Corps, Taiwan, Republic of China

Outstanding Youth, National Cheng Kung University

1987 Excellent Performance, Youth Mission Corps
Great Alliance for China's Re-unification under the Three Principles of the People
Position as vice president, stage designer and actress

1986 First Prize (portrait), Second Prize (building) and Fine Work Prizes (both categories)
N. C. K. U. Photo Contest

Principal Scholastic Excellence Award, National Cheng Kung University

Fourth Prize, National Youth Modern Drama Contest
N. C. K. U. Drama Society, position as Vice president, stage designer and actress

1984 Scholarship, Cooperative Bank of Taiwan

Principal Scholastic Excellence Award, National Cheng Kung University

GRANT PROPOSALS SUBMITTED

2012 National Endowment for the Arts (NEA) proposal, Story Sketch: supporting creative expression of visual narratives (submitted, not funded)

EFRI-ODDISSEI: Bio-Ori - Biologically-Inspired Ontological Framework and Engineering Design for Self-Transforming Mechanisms, to National Science Foundation, Office of Emerging Frontiers in Research and Innovation, EFRI ($1,999,918, preliminary proposal submitted 11/09/2011, not invited). PIs: Jeannette Yen, Ellen Yi-Luen Do, David Hu, Silas Alben, Russel Gentry

SHB: Type II (INT): Collaborative Research: Computational Approach to Characterizing Progression of Mild Cognitive Impairment and Alzheimer's Disease, to National Science Foundation, Division of Information & Intelligent Systems, cross-cutting program, Smart Health and Wellbeing ($999,930. submitted 2/21/2012, under review, status pending). PIs: Gregory Abowd, James Rehg, Ellen Yi-Luen Do, Thad Starner, Irfan Essa

SHB: Type I (EXP): ClockAnalyzer: Computational Behavioral Analysis for Neurological Examination, to National Science Foundation, Division of Information & Intelligent Systems, cross-cutting program, Smart Health and Wellbeing ($599,999, submitted 2/6/2012, not funded). PI: Ellen Yi-Luen Do

Mental Models and Creative Problem-Solving in Computer Science, submitted to National Science Foundation, Division of Behavioral and Cognitive Sciences BCS ($1,449,465, submitted 2/2/2012, not funded). PIs: Michael Mumford, Ellen Yi-Luen Do, Dean Hougen

2011 EFRI-ODDISSEI: Bio-Ori - Biologically-Inspired Ontological Framework and Engineering Design for Self-Transforming Mechanisms, to National Science Foundation, Office of Emerging Frontiers in Research and Innovation, EFRI ($1,999,918, preliminary proposal submitted 11/09/2011, not invited). PIs: Jeannette Yen, Ellen Yi-Luen Do, David Hu, Silas Alben, Russel Gentry

Developing Intelli-Cog system for MCI Screening and Analysis, to Early Detection-Cognitive Testing and Neuropsychometrics Program, Alheimer's Drug Discovery Foundation, http://www.alzdiscovery.org/ ($150,000, Letter of Intent submitted 3/18/2011, not funded). PI: Ellen Yi-Luen Do

Cognitive Stimulation Games to Prevent Aging-related Cognitive Impairment, to Alzheimer's Association International Grant Program (Letter of Intent submitted 1/10/11, and accepted. $240,000, Proposal submitted 2/16, not funded). PI: Ellen Yi-Luen Do, http://www.alz.org/research/alzheimers_grants/overview.asp

Inclusive Play Environment, submitted to FIP (Field-Initiated Projects) to NIDRR – National Institute on Disability and Rehabilitation Research ($200,000, proposal submitted 2/6, status pending), PI: Abir Mullick (ID), Senior Personnel: Tim Purdy (ID), Ellen Yi-Luen Do, Sarah Endicott (CATEA), David S Gordon (Living through Learning Foundation) http://www2.ed.gov/programs/fip/index.html

2010 InteCog System: ClockReader+ and CogStim Game for Screening and Preventing Cognitive Impairment, submitted to National Science Foundation, Smart Health and Wellbeing (12/7 submitted, $499,996, budget revision $102,000, funded in 2011). PI Ellen Yi-Luen Do http://www.nsf.gov/pubs/2010/nsf10575/nsf10575.htm

ClockReader + - A Computerized Neuropsychological Diagnosis Tool for Detecting and Monitoring Cognitive Impairment, submitted to Joint Coulter-ACTSI Translational Research Grant Program, PIs: Ellen Yi-Luen Do, Michelle LaPlaca (Biomedical Engineering), Dr. Allan I Levy (Emory Center for Neurodegenerative Disease and Alzheimer's Disease Research Center), $140,776, submitted 10/26, not funded http://www.atlantactsi.org/news/2010/joint_grant .html

2009 "HealthQuest: A Ubiquitous Technology to Motivate Employees to Increase Everyday Steps" NCIIA, National Collegiate Inventors and Innovators Alliance, PIs: Ellen Yi-Luen Do (faculty), Hyungsin Kim, Tina Seunghyun Lee, Matthew Swarts, Lauren Calvert (student team), $20,000, submitted 12/4/2009, not funded

EFRI-SEED Preliminary Proposal: Center for Adaptive Buildings with Integrated Systems (CABInS), Office of Emerging Frontiers in Research and Innovation (EFRI) National Science Foundation, PI: Erica Ryherd, Co-PIs: Ellen Yi-Luen Do, Gregory Corso ($1,999,816.00, submitted 11/13/2009, not funded).

Collaborative Research: CI-ADDO: A Universal Data Repository for Sketch Recognition Datasets, National Science Foundation, Division of Information & Intelligent Systems IIS (248,257.00, submitted 8/5/2009, not funded), PI: Ellen Yi-Luen Do, Collaborating PI: Tracy Hammon, Texas A & M University

"iVis - Investigating visual search behavior of the visually impaired in complex environments," Health Systems Institute Seed Grant, PIs: Ellen Yi-Luen Do, Ron Schuchard (Atlanta Veteran's Administration R&D Center of Excellence), Matthew Swarts and Hyungsin Kim Georgia Institute of Technology ($50,000, not funded)

"Grocery Hunter in an Immersive 3D Virtual Supermarket: Designing a health game for children, Health Systems Institute Seed Grant, PIs: Ellen Yi-Luen Do, Seema Csukas (Children's Healthcare of Atlanta), Ruth Bell (CHOA), Matthew Swarts and Hyungsin Kim Georgia Institute of Technology ($50,000, not funded)

"Baby Bottle Bud - research and instrumentation for sensing and transmitting data about suction, tongue movement and fluid flow of infant feeding pattern" Health Systems Institute Seed Grant, PIs: David L. Jaquess, Ph.D., Licensed Psychologist Director of Pediatric Feeding and Pediatric Psychology Programs, Marcus Autism Center, Ellen Yi-Luen Do, Associate Professor, Director of ACME Lab and Health Space Futures, College of Architecture and College of Computing, William Gary Sharp, PhD., Behavioral Pediatric Psychologist, Feeding Disorders Program The Marcus Autism Center, Jeannette Yen, Professor, Biology, Director, Center for Biologically-Inspired Design, College of Science, Georgia Institute of Technology, Heidi S. Liefer MS, CCC-SLP, CLC, Speech Language Pathologist, Feeding Specialist, Children's Healthcare of Atlanta ($50,000, not funded)

"Grocery Hunter in an immersive 3D virtual supermarket" for RWJF, Robert Wood Johnson Foundation: Health Game Research, PIs: Ellen Yi-Luen Do, Hyungsin Kim ($300,000, not funded)

2008 "TIM-HHA - Technological Interventions and Measurement for Hand Hygiene Adherence, for CDC 2008-R-20, Developing Measures to Assess Compliance: MRSA and related organisms, PIs: Dr. James P Steinberg (Chief Medical Officer, Emory Crawford Long Hospital), Ellen Yi-Luen Do, Craig Zimring (Do is the main author, $600,000, not funded)

"Designing Tangible Interactions Through Metaphors" for GVU Innovation Grant, PIs: Ellen Yi-Luen Do, Ashok Goel, Blair MacIntyre, Iulian Radu ($25,000, not funded)

"A Digital Workspace of One's Own: Organization of design workspace and knowledge capital in support of the creative process" for GVU Innovation Grant, PIs: Ellen Yi-Luen Do, Richard Catrambone, John Stasko, Carol Bales ($25,000 not funded)

"Designing Infant Toddler Illness-Notification Toolkit" for Health Systems Institute Seed Grant, PIs: Ellen Yi-Luen Do, Dr. John Cheng (Department of Pediatrics, Emory University and Children's Healthcare of Atlanta), Chung-Lun Kuo ($50,000, not funded)

"Mobile Music Touch: A Lightweight Wearable Haptic System For Hand Rehabilitation Through Passive Learning of Musical Playing Skills" for Health Systems Institute Seed Grant, PIs: Ellen Yi-Luen Do, Thad Starner, Deborah Backus (Shepherd Center – Spinal Cord Injury Rehabilitation and Brain Injury Rehabilitation), Kevin Huang ($50,000, not funded)

2007 "Expressive Computing: Narrative, Space, and Game" for Integrative Graduate Education and Research Traineeship (IGERT) Program, PIs: Janet H. Murray (Digital Media), Ellen Yi-Luen Do, Irfan Essa, Ashwin Ram, Co-PIs: Michael Nitsche, Ali Mazalek, Celia Pearce (not selected)

"IGERT: Integrating Science/Engineering and Pediatrics In Research and Education (IGERT:INSPIRE)" PI: Julie Jacko, Co-PIs: Gregory Abowd, D Suzanne Butcher, Paula J Edwards, Gerri Lamb, Ellen Yi-Luen Do, Dennis Hess, Charlie Kemp, Eva Lee, Ling Liu, Elizabeth D Mynatt, Ashwin Ram, Francois Sainfort, Eric Schumacher, John Stasko, Ajit Yoganathan, Craig Zimring [Submitted to NSF 07-540, not funded]

2005 "Moments of Discovery" an innovative approach to general education at research universities, submitted to NEH [not funded], PI: Wendy Katkin (Reinvention Center, State University of New York – Stony Brook)

"Collaborative Learning in Design: the Teamroom Backpack", submitted to NSF IIS ($599,981, not funded). PI: Dan Siewiorek, Co-PI: Susan Finger, Ellen-Yi-Luen Do, Mark D Gross, Pamela Jennings

2003 "Evaluating the effectiveness of visualization tools and science training on general cognitive abilities - A cross-disciplinary, multi-campus comparison," a proposal submitted to GRC, Gordon Research Conference and National Science Foundation Mini-Grant for Collaboration for Research and Development in Molecular Visualization, [$ 5,000, not funded], PI: Ellen Yi-Luen Do, Co-Pis: Mike Stieff (Northwestern University) and Mark Walter (Oakton Community College).

"World Wide Studio – Web-based Cross-Cultural Design Collaboration," a proposal submitted to NCIIA, National Collegiate Inventors and Innovators Alliance [$ 4,8800, not funded], PI: Jeffrey Hou, Co-PI: Ellen Yi-Luen Do

2002 "Managing Critical Services: XML inventory management with a 3D diagrammatic interface", a proposal submitted to National Science Foundation CMMI [$ 99,663, not funded) Exploratory Research on Engineering the Service Sector (ESS) NSF 02-029, PI: Ellen Yi-Luen Do

"Computer based scoring for neuropsychological copying and drawing tests — feasibility study", a proposal submitted to NSF Collaborative Research in Computational Neuroscience CRCNS [$76,966, not funded), PI: Mark D Gross, Co-PI: Ellen Yi-Luen Do

"Learning Math and Science through Physical Computing", a proposal submitted to NSF Division of Information & Intelligent Systems, Information Technology Research ITR [$ 344,775, not funded), PI: Mark D Gross, Co-PI: Ellen Yi-Luen Do

"XML Project Management Site Engine" a Graduate Student Research Grant Proposal submitted (for graduate student Michael Philetus Weller) to AGC (Association of General Contractors) of Washington's Education Foundation. [$ 6,340, not funded]

2001 "Digital Sandbox: integration of design and analysis in digital earth-forming", a proposal submitted to the RRF (Royalty Research Fund), University of Washignton. ($ 39,766, not funded)

"A Tool Kit for Documenting Places", a proposal submitted to NWACC (Northwest Academic Computing Consortium), ($ 50,000, not funded), collaborate with PI: Nancy Yen-wen Cheng (U of Oregon) and Mark D. Gross (UW) and Ron Kellett (U of Oregon)

2000 "Psycho-Sketch: Computer based application and assessment of neuropsychological drawing tests" a proposal submitted to University Royalty Research Fund (RRF), March ($ 24,339, not funded). PI: Ellen Yi-Luen Do

NON-REFEREED PUBLICATIONS, TECHNICAL REPORTS AND VIDEO DEMONSTRATIONS

2015 "A flourishing field: a guide to HCI in China, Taiwan, and Singapore," Ellen Yi-Luen Do, January 2015, Interactions, Volume 22 Issue 1, 56-59, ACM Press, doi>10.1145/2694475

2014 "Creative design computing for happy healthy living," Ellen Yi-Luen Do, in HAI'14, second international conference on Human-agent interaction, Keynote, ACM Press: 7-8, http://dl.acm.org/citation.cfm?id=2658947 or doi>10.1145/2658861.2658947

"Sketch It, Make It: Freehand Drawing for Precise Rapid Fabrication," Gabe Johnson, Ellen Yi-Luen Do, Mark D. Gross, Jason I. Hong, CMU-HCII-14-103, http://cmuchimps.org/uploads/publication/paper/150/sketch_it_make_it_freehand_drawing_for_precise_rapid_fabrication.pdf

2013 "Preface: Special Issue on Intelligent Interactive Technologies and Multimedia" Anupam Agrawal, R. C. Tripathi, Ellen Yi-Luen Do, M. D. Tiwar: Int. J. Image Graphics 13(2) (2013) 4 pages http://www.worldscientific.com/toc/ijig/13/02 or DOI: 10.1142/S0219467813020014

Magic Keyer—A mobile augmented reality application by using Chroma keying, Yuan Wang, Linh Chi Nguyen, Do Yi Luen Ellen, Demo at ISMAR, International Symposium on Mixed and Augmented Reality, Oct 1-4, 2013, Adelaide, Australia, http://ismar.vgtc.org/ismar/2013/info/exhibition/2013-ismar-demonstrations

2012 A letter to a friend: Artificial intelligence and intelligent artifacts. AI EDAM 26(1): 9 (2012)

2011 Poster presentation, Hyungsin Kim & Ellen Yi-Luen Do. Automatic Clock Drawing Test for Cognitive Impairment Screening" as a Poster presentation at the 2011 Public Health Informatics Conference, August 12, 2011, Atlanta, Georgia, USA

Invited presentation, Hyungsin Kim & Ellen Yi-Luen Do. ClockReader: Investigating Sketch-Based Cognitive Screening System to Detect the Early Stages of Dementia. The UKC 2011 (US-Korea Conference on Science, Technology, and Entrepreneurship)'s Podium Presentation in Technical Group of Computer Science, August 10, 2011, Park City, Utah, USA

2009 "Graceful Aging and Happy Healthy Living in the Aware Home," keynote paper for the 4th. International Symposium on Construction Technology Information "Aging Society and Ambient Intelligence" http://www.npo-i2cti.jp/koshukai7.html, July 21, 2009, Tokyo, Japan, hosted by International Institute for Construction Technology Information, pp. 5-18. http://www.npo-i2cti.jp/

"Unlocking Human Potential through Technological Innovation," position statement for keynote speech in 2009 National Science Council "Intelligent, Quality, Good Life" conference proceedings, Jan 20, at National Taiwan University, Taiwan, pp. 011-020, Taipei, Taiwan

"Back to the real world: Tangible interaction for design," Ellen Yi-Luen Do and Mark D Gross, in Artificial Intelligence for Engineering Design, Analysis and Manufacturing (2009), 23, 221–223. Cambridge University Press 0890-0604/09 http://doi:10.1017/S0890060409000195

2007 Sustainability Poster Session Showcase before Al Gore's Lecture on Wednesday, April 18th, 2007, Ferst Center, Georgia Tech

2006 “Things that Think, Spaces that Sense and Places that Play," position statement for Keynote speech at the Smart Living Space Symposium, June 1-2 at International Conference Center at NCKU - National Cheng-Kung University, Tainan, Taiwan, http://credit.csie.ncku.edu.tw/2006/, organized by the Center for Research of E-life Digital Technology, with support from the National Science Council in Taiwan

“Things that Think, Spaces that Sense and Places that Play," HCI Seminar, talk abstract, hosted by Department of Computer Science and Information Engineering, National Taiwan University, Taipei, Taiwan, http://www.csie.ntu.edu.tw/, http://www.csie.ntu.edu.tw/announce/news/94B/20060607.pdf

2004 “Between Worlds: Visions and View for the Future of CAD," Mark D Gross, Ellen Yi-Luen Do, Opening Session for G-CAD Symposium, July 14, Carnegie Mellon University

2003 "SPOT" video demonstration, Sebastien Bund, Ellen Yi-Luen Do and Mark D. Gross

“A Culture of Possibilities – Design Machine Group,” Ellen Yi-Luen Do, in CAAD Talks 3, Digital Design Education, Mao-Lin Chiu (ed.), pp. 128-137, Garden City Publishers, Taipei, ISBN 986770520-3

“The Prospects of Design Computing,” Ellen Yi-Luen Do, in CAAD Talks 2, Dimensions of Design Computation, Mao-Lin Chiu (ed.), pp. 140-155, Garden City Publishers, Taipei, ISBN 986-7705-00-9

2002 “Space Maker” video demonstration, Ming-Chun Lee, Ellen Yi-Luen Do and Mark D. Gross

“Navigational Blocks” video demonstration, Ken Camarata, Mark D. Gross and Ellen Yi-Luen Do

2001 “Digital Sandbox”, video production, Robert M Harris and Ellen Yi-Luen Do

“SpacePen”, videotape demonstration, Thomas Jung, Mark D. Gross and Ellen Yi-Luen Do

Final report to National Science Foundation, Back of an Envelope Project, Grant # IIS-96-19856 and IIS-00-96138. (as senior personnel, PI: Mark D Gross)

2000 “Architectural Augmented Reality”, position statement, with Mark D. Gross, for DARE (Designing Augmented Reality Environments)

1999 “Immersive Redlining”, Video production, Thomas Jung, Mark D. Gross and Ellen Yi-Luen Do

“The Electronic Cocktail Napkin”, demonstration video, Mark D Gross and Ellen Yi-Luen Do

“Collaborative Design with NetDraw”, video production, with Mark D. Gross, Dongqiu Qian

“Digital Clay”, demonstration video, Mark D. Gross and Ellen Yi-Luen Do

“The Pyramids of Knowledge”, Library of Information Age, CD-ROM, Thomas Jung, Mark D. Gross and Ellen Yi-Luen Do. (ACADIA Competition, Honorable Mention)

“Freehand Drawing as an Interface to Knowledge Based Design”, at NSF Human-Computer Interface Grantees Workshop '99. K. Stanney and G. Strong (eds). Orlando, FL, Feb 21-23, pp.162-163, Mark D. Gross and Ellen Yi-Luen Do

1998 “The Sundance Lab -- Design Systems of the Future” In ACADIA Quarterly, Volume 17 #4 a quarterly publication of the Association for Computer-Aided Design in Architecture, Ellen Yi-Luen Do and Mark D. Gross

“Interactive Systems for Supporting the Emergence of Concepts and Ideas” In SIGCHI bulletin, a quarterly publication (http://www.acm.org/sigchi/bulletin) of the ACM Special Interest Group on Computer-Human Interaction, Vol. 30, #1, January 1998, Ernest Edmonds, Thomas Moran and Ellen Yi-Luen Do

“The Right Tool at the Right Time: Investigation of Freehand Drawing as an Interface to Knowledge Based Design Tools” Ph.D. dissertation, Georgia Institute of Technology

"The Right Tool at the Right Time", Tech Report, GIT-COGSCI-98/03 Cognitive Science Program, Georgia Institute of Technology

1997 "Emergence in Sketching" In CHI 97, Conference on Human Factors in Computing Systems, Interactive Systems for Supporting The Emergence of Concepts and Ideas, Workshop preprints, Atlanta, GA. Ellen Yi-Luen Do and Mark D. Gross.

1996 "Drawing as an Interface to Knowledge Based Design", Mark D. Gross, Ellen Yi-Luen Do, Adrienne Warmack, Jen Lewin, and Kyle Kuczun, final report of a Colorado Advanced Software Institute Undergraduate Research Grant.

"Ambiguous Intentions: Contextual Recognition", video demonstration, Mark D Gross and Ellen Yi-Luen Do

1994 "Usability Study of A Case-based Design Aid Archie," Georgia Institute of Technology, Technical report. Ellen Yi-Luen Do, Siu-Wing Daniel Or, David M. Carson, Chang-shin Chang, and Wesley C. Hacker.

"To access an architectural case library from sketching." Ellen Yi-Luen Do, in The 1994 Cognitive Science Graduate Student Conference (CSGSC-94), Atlanta.

1993 "To share a dream - exploring design through multi-dimensional dynamic process." Ellen Yi-Luen Do, in W. Bullock and G. Lewis (eds.) Design Research Collaboration: Interdisciplinary Approach to Design Education, America's Industrial Design Educators Publication, IDSA (Industrial Designers Society of America), Atlanta.

1991 "Notes on Contemporary and Old Anping" in ARCH -- New Taiwan Architectural Journal, Taipei, Taiwan, R. O. C., 5/1991, (in Chinese)

1990 A Tourism Resources Survey and Integrated Development of Kingmen, Tourism Bureau Publication, Tourism Bureau, Ministry of Communications, R. O. C., project-manager, editor-in-chief, co-authored with Fu-Kuo Mi, et. al. (in Chinese)

A Study on the Relationship between Population Characteristics & Land Use in Densely Populated Areas National Taiwan University Graduate Institute of Building and Planning publication, Taipei, Taiwan R. O. C, editor-in-chief, co-authored with Liang-Chuan Chen, et. al. (in Chinese)

The Evaluation of Urban Seismic Disaster Factors, Ministry of Internal Affairs Project, R. O. C., National Taiwan University Graduate Institute of Building and Planning publication, Taipei, Taiwan R. O. C, editor-in-chief, co-authored with Liang-Chuan Chen, et. al. (in Chinese)

1989 Chinese translation of Appendixes of Good City Form by Kevin Lynch, Taiwan University publication, Taipei, Taiwan, R. O. C.: National Taiwan University. (in Chinese)

Chinese translation of Chapter 2 of The City and the Sign : an introduction to urban semiotics edited by M. Gottdiener and Alexandros Ph. Lagopoulos., Taiwan University publication, Taipei, Taiwan, R. O. C.: National Taiwan University.

1988 Editor-in-chief, N. C. K. U. Architecture Journal, no. 23, Tainan, Taiwan R. O. C. (in Chinese)

"Design Education" in N. C. K. U. Architecture Journal, no. 23 Tainan, Taiwan R. O. C. (in Chinese)

"Campus Planning of National Taiwan University" in N. C. K. U. Architecture Journal, no. 23 Tainan, Taiwan, R. O. C. (in Chinese)

1987 "The Glass Menagerie" in N. C. K. U. Monthly, 2/1987, Tainan, Taiwan, R. O. C. (in Chinese)

"Construction Techniques of Confucius Temple in Tainan City," Taiwan University publication, Taipei, Taiwan R. O. C. National Taiwan University Institute of Architecture and Urban Studies, 8/1987. (in Chinese)

1986 Architecture in Anping, SCALE Studio publication, Tainan, Taiwan, R. O. C., Studio of Chinese/Contemporary Architecture, Landscape, and Environment, 8/1986, co-authored with Chao-Ching Fu, et. al. (in Chinese)

1985 "How to build a Temple" in N. C. K. U. Monthly, 5/1985, National Cheng Kung University, Taiwan, R. O. C. (in Chinese)

INVITED PRESENTATIONS, PANEL, CONFERENCE PROGRAM CHAIR

2016 Plenary Speaker at the 3rd Asia Pacific Meeting on Simulation in Healthcare (APMSH), Singapore
Talk title: "From Magic to Outcomes - Virtual & Augmented Reality Simulation Applications in Healthcare" for AMPSH 11/15 - 11/17 http://www.apmsh2016.com/speakers 11/17 Thur. 3:00 pm University Culture Center

Keynote Panel, "Enchanted Ready-to-Wear: Transforming Fashion with 3D Printing" for The ATLAS T3 International Conference, Transdisciplinary –Transnational –Transcultural Conference on Design, Process and Systems, May 29 - June 2, 2016 at Xi'an Jiaotong-Liverpool University (XJTLU) in Suzhou, China, http://www.theatlas.org/index.php?option=com_content&view=article&id=166&Itemid=155

Keynote, The Disappearing Computer: Human-Computer Interfaces and the Promise of Seamless Computing CHI UX Indonesia 2016, "Bridging the Gaps in the HCI and UX World," April 13 – 15, 2016, http://chiuxid2016.chiuxindo.uxindo.com/

2015 ATLAS Speaker Series, "The Disappearing Computer: Human-Computer Interfaces and the Promise of Seamless Computing," ATLAS Institute - Alliance for Technology, Learning, Arts and Sciences, University of Colorado, Boulder, Sep 29, 2015, USA. http://atlas.colorado.edu/events/disappearing-computer/

Invited Talk, "CUTE Center and E-Taste Technology", Coca Cola Global Headquarter, Atlanta, Sep 1, 2015

Invited Talk, "Building VR medical simulation for augmented learning". Presented at the PMHA - Parametric Human Project - 3rd International Workshop on Biomechanical and Parametric Modeling of Human Anatomy, Aug 28-30. Montreal, Quebec, Canada, hosted by Autodesk Canada Co.
http://www.parametrichuman.org/events/pmha2015/program

Invited talk, "Methods and Application", presented by Ellen Yi-Luen Do, at Personalised Lifelong Learning: from the Neuroscience to the Practice of Learning, Science of Learning Workshop (9-10 July), hosted by NRF, at CREATE Tower, Level 2 Seminar Room, with Cambridge University. Program at
https://drive.google.com/file/d/0B4jIMqugj8XxdTlHZEJrUlo4M2h5UkJ2Q1dDRXpqTUlfcl9F/view

Invited talk, "2CUTE: Creating Unique Technology for Everyone", by Ellen Yi-Luen Do, presented at the Science of Learning Workshop, "Inter-disciplinary Research on the Science of Learning," hosted by NUS and sponsored by NRF, at Seminar Rooms 1-3, CREATE Tower, Level 2 (above Koufu), University Town, July 1, Program: https://drive.google.com/file/d/0B4jIMqugj8XxWlhPdDB5N2MycG5fTXNseFdqYnR0YUxnbjlr/view

Program Chair for ACM Creativity and Cognition Conference 2015, held in Glasgow, June 22-25, 2015, http://cc15.cityofglasgowcollege.ac.uk/

Invited Talk, "Exploring Foot Wearables, GT-NUS Wearable workshop", talk at Symposium on Design and Wearable Technology, http://ipdl.gatech.edu/wearables2015/ May 8-9, Atlanta, USA

Conference Co-Chair for the 6th Augmented Human International Conference, in Singapore, March 9-11, http://www.augmented-human.com/

Associate Chair for ACM CHI Design Subcommittee, Human Factors in Computing, in Seoul, Korea, April 18 - 23, 2015, http://chi2015.acm.org/

Invited Talk, "Augmented Learning for Medical Simulation", presented in Symposium about RIEC activities related to cooperative research – video http://www.riec.tohoku.ac.jp/archives/contents/kyopro2014_6/

2014 Invited Talk, "Creative design computing for happy healthy living", Dec 11, 2014, 11 am, at Electrical Engineering, Kyungpook National University, Daegu, Korea, hosted by Prof. Min-Ho Lee

Invited talk. "Creative design computing." 3pm, Thursday Dec 4, 2014, Ming Chih University of Technology, hosted by Dept. Chair Dr. Zun-Hwa Chiang, Dept. of Industrial Design

Invited talk. "Creative design computing" 11 am, Wednesday Dec 3, 2014, Chang Gung University, hosted by Dept. Chair Dr. Kevin C. Tseng, Dept. of Industrial Design

Invited Talk, "Creating Unique Technology for Everyone", at International Symposium on Interaction Design and Human Factors (IDHF) Nov 26, 2014, in Kochi, Japan http://idhf.xrenlab.com

Keynote Speech. "Creative design computing for happy healthy living." Ellen Yi-Luen Do, in HAI'14, Second international conference on Human-agent interaction, Keynote, Oct 29, 2014, Tsukuba, Japan, http://hai-conference.net/hai2014/keynote-ellen-do

Invited talk. Augmented Learning in Human-Computer Interaction: Learning through multimodal approaches. Tuesday, Oct 21, 2014, 2:30 pm at the UK Commission and NRF organised Workshop on the Science of Learning, at Royal Society, London, http://www.educationalneuroscience.org.uk/workshop-on-the-science-of-learning-held-on-21-october-2014-at-the-royal-society

Panelist. Integrating Gaming and Fitness Panel. Anita Borg Institute Grace Hopper Celebrating of Women in Computing conference, Oct 9, 2014, Phoenix, Arizona, USA, schedule http://gracehopper.org/2014-schedule

Panelist in the MMSP panel on Wearable Multimedia Computing. 2014 IEEE International Workshop on Multimedia Signal Processing, in Jakarta, Indonesia, Sep 22 - 24, 2014, http://mmsp2014.ilearning.me/

Keynote speech at Design Semantics. From Electronic Cocktail Napkin to Computing Happy Healthy Life. International Association for Ontology and Its Applications (IAOA). Special Interest Group Workshop, June 30 - July 2nd, Bari, Italy. http://www.designsemantics.org
http://cindy.informatik.uni-bremen.de/cosy/design-semantics/SIG-2014/keynotes/index.html

Keynote speech at the main conference of The 11th International Joint Conference on Computer Science and Software Engineering. Creating Unique Technology for Everyone with Computing Experience Media. Human Factors in Computer Science & Software Engineering, 14-16 May 2014 Pattaya, Thailand. Host: Faculty of Science at Si Racha, Kasetsart University Si Racha Campus, Thailand.
http://www.jcsse2014.com/index.php/keynote-speaker.

Invited Talk: Creative Design Computing, Department of Computer Education, doctoral research seminar, King Mongkut Institute of Technology, North Bangkok, Thailand. 10 May 2014

Conference Chair for Chinese CHI 2014, International Symposium of Chinese CHI, April 26-27, Toronto, Canada, http://chchi2014.icachi.org/zh/page/committee

Invited Talk: Being CUTE – Creating Unique Technology for Everyone. International Symposium on Design Visions 2014 (ISDV2014). 16 Mar 2014. http://www.design.kyoto-u.ac.jp/isdv2014/

Panelist in the (2/28) KMD Forum "Creating Unique Technology for Everyone". http://forum.kmd.keio.ac.jp, http://forum.kmd.keio.ac.jp/img/pdf/4th-kmd-forum_Release.pdf

Panelist in the (2/27) Interaction 2014 conference held at Miraikan (Japanese Museum for Future Science and technology) on (Panel Discussion: Future of Communicating Research Outcomes on Interactive technologies). http://www.interaction-ipsj.org/2014/event.html

2013 Invited Talk: Things that Think, Spaces that Sense and Places that Play, at Taipei Tech (National Taipei University of Technology), hosted by Department of Interaction Design, and Graduate Institute of Interactive Media Design http://www.imd.ntut.edu.tw/ Dec 12, 2013. Tangible Interaction workshop Dec 9-18.

Keynote Speech, Design Computing for Things that Think, Spaces that Sense and Places that Play, at ICOMS 2013, International Conference on Modeling & Simulation, hosted by Air University, Islamabad, Pakistan, Nov 25-27. Ellen was given a plaque by Pakistan's Minister of Education Mr. Muhammad Baligh ur Rehman, http://portals.au.edu.pk/icoms-2013/keynotespeakerandinvitedtalks.php

Panel Discussion: Prof. Ellen Yi-Luen Do. Future of Communicating Research Outcomes on Interactive Technologies. SIGGRAPH Asia 2013 Hong Kong. 22 Nov 2013.
http://sa2013.siggraph.org/en/attendees/emerging-technologies.html?view=session&type=etech&sessionid=202

Keynote - Second International Conference on Intelligent Interactive Technologies and Multimedia (IITM 2013) http://iitm.iiita.ac.in/index.html (March 9-11, 2013), Allahabad, India

Conference Chair for IITM 2013 - second international conference on intelligent interactive technologies and multi-media, March 9-11, 2013, Allahabad, India http://iitm.iiita.ac.in/

Design Community Chair for ACM SIGCHI Conference on Human Factors in Computing Systems CHI 2013 - http://chi2013.acm.org/communities/design/ (April 27 - May 2, 2013), Paris, France

2012 Program co-chair for ACM C&C 2012, International Conference on Creativity and Cognition, June 17-20, 2013, Sydney, Australia, http://cc13.creativityandcognition.com/

Design Community Chair for ACM SIGCHI Conference on Human Factors in Computing Systems CHI 2012 (May 5-10, 2012), Austin, Texas, http://chi2012.acm.org/com-design.shtml

Invited talk, July 18, 2012, at Georgia Tech, Toward a Smart Living Environment, to a NSF funded ICE (Institute for Computing Education) Teacher Workshop, http://coweb.cc.gatech.edu/ice-gt/1878

Invited talk, July 10, 2012, at Georgia Tech, as part of the talk Things that Think, Spaces that Sense and Places that Play, for High School EarSketch summer camp - http://coweb.cc.gatech.edu/ice-gt/1889

2011 Conference Chair for SBIM 2011 – Sketch Based Interactions and Modeling Symposium, Eurographics and ACM sponsored, to be held pre-SIGGRAPH, and jointly with NPAR – Symposium on None Photorealistic Animation and Rendering and CAE – International Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging, to be held in Aug 5-7, 2011, in Vancouver, BC, Canada, http://www.cl.cam.ac.uk/conference/cae-sbim-npar-2011/SBIM/Home

Chair for Graduate Student Consortium for 8th ACM Conference on Creativity and Cognition, to be held Nov 3-6, 2011, Atlanta, Georgia Tech http://dilab.gatech.edu/ccc/index.html

Program co-chair for ACM TEI 2011 -- Tangible, Embedded and Embodied Interaction conference held in Madeira, Portugal, Jan 26-28, 2011 http://tei-conf.org/11/, TEI 2010 is hosted by MIT Media Lab, Jan 25-27, 2010 http://tei-conf.org/10/

Invited talk, Hyungsin Kim and Ellen Yi-Luen Do, The ClockMe System: Technological Opportunities for Memory Screening. Emory Alzheimer's Disease Research Centers (ADRC) first annual Fall Scientific Retreat, November 5, 2011, Atlanta, Georgia, USA

2010 Keynote Speaker – Things that Think, Spaces that Sense and Places that Play, at IITM 2010, First International Conference on Intelligent Interactive Technologies and Multimedia, Dec 28, 2010 Allahabad, India, http://iitm.iiita.ac.in/ http://portal.acm.org/citation.cfm?id=1963564&coll=DL&dl=ACM&CFID=14414315&CFTOKEN=25091911

Invited talk, Things that Think, Spaces that Sense and Places that Play, lecture given at the Faculty of Architecture, Design and Planning, at Nov 30, University of Sydney

Keynote Speaker, Things that Think, Spaces that Sense and Places that Play, at the Symbiotic, Safe and Secure System Design – International Symposim on Biofied Buildings, Nov 26, at Keio University, host: Prof. Akira Mita, http://www.gcoe-s4design.keio.ac.jp/event/2010/kenchiku_prog.pdf

Demo co-chair for DIS – Designing Interactive Systems 2010 (DIS 10) held in Arhus, Denmark, http://www.dis2010.org/ & http://www.dis2010.org/index.php?Organisers+%2Fchairs

Invited Speaker and Workshop leader – Thinking with Diagrams Charrette – Analog-Digital (2D – 3D – 2D), the Spatial Manipulation Workshop, at Southern Polytechnic State University, Friday, Sep 17, 2010.

Program Chair for SBIM 2010 – Sketch Based Interactions and Modeling Symposium, Eurographics and ACM co-sponsored, held jointly with NPAR – Symposium on None Photorealistic Animation and Rendering, June 7-10, Annecy, France, http://graphics.cs.williams.edu/sbim-npar10/

Keynote Speaker, "Come Dress with me - light, color, and magic show," at Tainan University of Technology, Fashion and Creative Design Symposium, International Masters series, May 26, 2010. Hosted by College of

Living Technology, and College of Design. Dept. of Styling and Cosmetology, Director Jung-Jy Lin, and Dept. of Product Design chair, Ivan Ting.

Invited Talk, “Design Better Future?” First International Creative Design Symposium, at Shu-Te University, 5/27, 2010, College of Design, Department of Digital Technology and Game Design, hosted by Chair Chun-Wei Chen, and Tin-Kai Ken Chen, http://www.stu.edu.tw/news/22953.html

Keynote Speaker, “From Electronic Cocktail Napkin to Creative Tangible Interaction,” at Shu-Te University, International Conference of Post-Design Development, Knowledge Innovation and Creativity Integration, May 28, 2010, hosted by University President Dr. Ining Y. H. Chu, Yuan-Hua Lu, and College of Design Dean Ing-Huey Wong, organized by College of Design http://www.pad.stu.edu.tw/2010postdesign/ http://news.sina.com.tw/article/20100529/3200149.html

2009 Keynote speaker "Toward a Smart Living Environment", lead a workshop on "Ambient Intelligence, Physical Computing and Fun" and a panel "Creating Environments that Make People Smarter" in Tainan, Taiwan for the "Being Smart, Going Green" Living Labs workshop, sponsored by National Science Council, Taiwan http://sites.google.com/site/livinglabsworkshops09/keynotes (Nov 11-14, 09) http://research.ncku.edu.tw/re/news/e/20091016/1.html

Keynote speaker, “Unlocking Human Potential through Technological Innovation” at 2009 National Science Council sponsored “Intelligent, Quality, Good Life” conference, Jan 20, at National Taiwan University, Taiwan, hosted by National Taiwan University's INSIGHT Center (Center of INnovation and Synergy for IntelliGent Home Technology), Taipei, Taiwan http://insight.ntu.edu.tw/CONFERENCE/speech.html

Keynote speaker, “Graceful Aging and Happy Healthy Living at the Aware Home” at the 4th. International Symposium on Construction Technology Information- Aging Society and Ambient Intelligence”, July 21, Tokyo, Japan, hosted by I2CTI – International Institute of Construction Technology Information, http://www.npo-i2cti.jp/, http://www.npo-i2cti.jp/koshukai5.html

Program chair for SBIM - NPAR - Sketch-Based Interfaces and Modeling Workshop and Symposium on NonPhotorealistic Animation and Rendering, in Annecy, France, June 2010 http://graphics.cs.williams.edu/sbim-npar10/committee.html

Invited talk, “Things that Think, Spaces that Sense and Places that Play” at Computer Science Colloquium, University of Massachusetts Lowell, April 8, 2009, hosted by Fred Martin http://www.uml.edu/Media/calendar/cs_collo.html

Invited talk, “Things that Think, Spaces that Sense and Places that Play – Creative Design Computing for Happy Healthy Living,” Computer Science Seminar, Wellesley College, April 9, 2009, hosted by Orit Shaer, https://frannie.wellesley.edu/clce/CLCE_Abstracts.jsp

2008 Invited talk, “Things that Think, Spaces that Sense and Places that Play” at Environmental Design & Planning PhD Program's Doctoral Seminar at Clemson University on October 17, 2008

Invited talk, “Towards a Smart Healing Environment” in Sketching in Hardware 07 - A summit on the design and use of physical computing toolkits, July 25-27, 2008, Rhode Island School Of Design, Providence, Rhode Island http://www.sketching08.com/ hosted by Mike Kuniavsky, Thing M.

2007 Invited talk at HCI Seminar, “Design Computing and Intuitive Interfaces” at University of Illinois at Urbana Champaign, Department of Computer Science, October 4, Thursday, 11:00, 3401 Siebal Center, hosted by Brian Bailey, ORCHID (Research in Computer Human Interaction Design), http://orchid.cs.uiuc.edu/, http://webtools.uiuc.edu/calendar/Calendar?calId=1436

Keynote Speaker, “Every Drawing Tells a Story,” for “Spatial Cognition in Architectural Design Workshop - Anticipating User Behavior, Layout Legibility, and Route Instructions in the Planning Process,” in conjunction with the International Conference on Spatial Information Theory (COSIT'07), Melbourne, Australia, September 19, 2007, hosted by Thomas Barkowsky (University of Bremen, Germany), Zafer Bilda (Australasian CRC for Interaction Design (ACID), Creativity and Design Studios, UTS, Australia), Christoph Hölscher (University of Freiburg, Germany) and Georg Vrachliotis (ETH Zurich, Switzerland), http://www.sfbtr8.spatial-cognition.de/SCAD/

Invited talk, “Creative Design Computing” at University of Oregon, Eugene, August 24, Friday, 2007, hosted by Nancy Yen-Wen Cheng.

Invited talk, “Higher-level toolkits and design compilers” in Sketching in Hardware 07 - A summit on the design of/with physical computing toolkits, June 23-24, 2007, Mechanics' Institute Library, San Francisco http://www.sketching07.com/ hosted by Mike Kuniavsky, Thing M.

Keynote Speaker, “Patient Room of the Future” at the 2007 Symposium on Digital Life Technologies: Building a Safe, Secured and Sound (3S) Living Environment, June 7-8, at National Cheng-Kung University, Tainan, Taiwan, http://credit.csie.ncku.edu.tw/2007/

Invited Speaker, Visual Thinking and Spatial Reasoning” for the School of Interactive Arts and Technology, Simon Fraser University, hosted by Janet McCracken, May 23, Surrey, British Columbia, Canada

Invited Speaker, “Understanding Geometry and Semantics for Sketching” for the Invited Workshop on pen-centric Computing, hosted by Andy van Dam, March 26, Brown University. Microsoft Center for Research on Pen-Centric Computing, http://pen.cs.brown.edu/news.html

2006 Speaker, “Ambient Intelligence for Home Energy Use”, Strategic Energy Institute, Creating Energy Options Grantees Meeting, November 21, hosted by Sam Shelton, Charlie Liotta.

Invited Speaker, Cognitive Science Colloquium, Georgia Tech, September 22, Friday, "Design Thinking and Sketch Understanding," hosted by Nancy Nersessian, and Ellie Harmon, Tech Square Research Building 223

Workshop Session Co-Chair, for “Let’s Get Physical: tangible Interaction and Rapid Prototyping in, for, and about Design” for Second International Conference on Design Computing and Cognition, held in Technical University of Eindhoven, Netherlands, 8-9 July, http://www.arch.usyd.edu.au/kcdc/conferences/dcc06/

Keynote Speaker - "Things that Think, Spaces that Sense and Places that Play" at the Smart Living Space Symposium, June 1-2 at International Conference Center at NCKU - National Cheng-Kung University, Tainan, Taiwan, organized by the Center for Research of E-life Digital Technology, with support from the National Science Council in Taiwan http://credit.csie.ncku.edu.tw/2006/

Invited Speaker, June 5 Monday at Interior Design & Visual Communications, at TUT - Tainan University of Technology, Yung Kang, Taiwan, hosted by Chieh-Jen Lin, http://www.tut.edu.tw/webmaster/Nenglish/english.htm

Invited Speaker, June 6 Tuesday at Graduate School of Computational Design, NYUST - National Yunlin University of Science and Technology, Yulin, Taiwan, hosted by Teng-Wen Chang and Ji-Huyn Lee, http://www.cd.yuntech.edu.tw/

Invited Speaker, June 7 Wed, at CSIE - Department of Computer Science and Information Engineering, NTU - National Taiwan University, Taipei, Taiwan, hosted by Hao-Hua Chu, http://www.csie.ntu.edu.tw/seminar.html, and Ubicomp Lab, http://mll.csie.ntu.edu.tw/

Invited Speaker, June 8 Thursday at NTUST - National Taiwan University of Science and Technology, Taipei, Taiwan, hosted by Shen-Fen Nik Chien, http://www.ad.ntust.edu.tw/grad/caad/

Invited Speaker, "Exploring Physical Computing" at Atlanta Dorkbot meeting, hosted by Jason Freeman, March 9, Atlanta, Georgia http://dorkbot.org/dorkbotatl/03092006/

2005 Session Chair, “Session IV – Digital Life and Human Technology of the Future”, Annual Convention, Chinese Institute of Engineers – USA, Greater New York Chapter http://www.cie-gnyc.org October 15, Newark Airport Marriott Hotel

Invited Speaker, “Home in the Digital Age” for Annual Convention, Chinese Institute of Engineers – USA, Greater New York Chapter http://www.cie-gnyc.org October 15, Newark Airport Marriott Hotel, Panel included Jackie Chia-Hsun Lee, Hao-Hsiu Chiu, and Jason I Hong.

Contributor, “House of the Future” for SciTech Spectacular, September 30 – October 9, exhibit at Carnegie Science Center, sponsored by the SciTech Festival http://www.scitechfestival.org

Invited Speaker, “Physical Computing and Home of the Future,” SURG Seminar (Small Undergraduate Research Grant), September 23, Dowd, University Center, Carnegie Mellon University, hosted by Janet Stocks and Lisa Everett, Undergraduate Research Office

Session Leader, “Engineering the House of the Future: Home 2020,” EYF (Engineering Your Future), A career guidance workshop for City of Pittsburgh Public School girls, Sponsored by the Society of Women Engineers, July 18-22, http://swetietoc.pc.cc.cmu.edu/swe/eyf.php

Invited Speaker, "Design and Human-Computer Interaction" RCAST (Research Center for Advanced Science and Technology, University of Tokyo, May 10, Komaba campus, Tokyo, Japan. Hosted by Professor Kumiyo Nakakoji, KID (Knowledge Interaction Design) Lab. http://www.kid.rcast.u-tokyo.ac.jp/index.html

Carnival Booth Chair, “Home 2020” April 14-16, Spring Carnival, Carnegie Mellon University

Invited Speaker, "Inventing Computational Design: Interface, Reasoning, and Environments," for the Ph.D. Program, College of Architecture, Georgia Institute of Technology, hosted by Chuck Eastman, March 11, Atlanta, Georgia. http://www.coa.gatech.edu/phd/

Invited Speaker, “Toward Intuitive Design Interfaces,” for HCII, Human Computer Interaction Institute, February 16, hosted by Brad Myers, Professor, HCII, School of Computer Science, Carnegie Mellon University. http://www.hcii.cmu.edu/index.html

Invited Speaker, “Reinventing Froebel's Gifts, a design brainstorming workshop,” for AIAS, American Institute of Architectural Students, February 16, hosted by Deniz T. Secilmis, AIAS president, Carnegie Mellon University. http://www.andrew.cmu.edu/user/aias/.

2004 Invited Speaker, “Design and Human-Computer Interaction,” for School of Information Sciences (SIS), December 6, University of Pittsburgh, hosted by Stephen Hirtle, Professor, Department of Information Science and Telecommunications http://www.sis.pitt.edu/l

Invited Speaker, and session Leader, "Integrating Research into Undergraduate Education" National Reinvention Center Conference, Nov 18-19, Washington, D.C. sponsored by the National Science Foundation and the Woodrow Wilson National Fellowship Foundation. http://www.sunysb.edu/Reinventioncenter/

Invited Speaker, "The Making of Design Machines," for the School of Interactive Arts and Technology, Simon Fraser University, hosted by Janet McCracken, Robert Woodbury, March 19, Surrey, British Columbia, Canada

Invited Speaker, “Intuitive Digital Design,” for Research Exposed, Undergraduate Research Seminar, Undergraduate Research Program and the Odegaard Undergraduate Library, GEN ST 391, January 7, Odegaard Auditorium OUGL 220, hosted by Janice DeCosmo, Assistant Dean, Undergraduate Education, University of Washington. http://www.washington.edu/research/urp/exposed/2004winter.html

2003 Keynote Speaker, “Architecture and beyond,” for the “Major Madness” sponsored by Panhellenic Association, November 25, hosted by VP Scholarship, Allison Schultz, Alpha Gamma Delta

Invited Speaker, “Visual Thinking and Spatial Reasoning,” for the Math Brownbag, November 25, Padelford C-120, hosted by Ginger Warfield, Mathematics Department, University of Washington

Invited Speaker, “Design Computing Research at the Design Machine Group,” for Doctoral Seminar, October 30, BE 550, Ph.D. Program in the Build Environment, hosted by Eddy Rojas, University of Washington.

Invited Faculty Mentor, for “First Connections,” Fall Orientation seminars, September 26, three sessions, sponsored by First Year Programs, Office of Undergraduate Education, University of Washington

Invited Speaker, “Intuitive Digital Design: sketch, gesture and physical computing,” for Graduate School of Computational Design, National Yunlin University of Science and Technology, Yunlin, Taiwan, December 24, evening lecture series hosted by Ji-Hyun Lee and Quen-Tai Gao.

Invited Speaker, “Physical Computing” lecture, panelist on “future computing research and education,” and programming workshop on sketching Department of Architecture, National Cheng-Kung University, Tainan, Taiwan, December 23, 24, hosted by Taysheng Jeng, and Maolin Chiu.

Invited Speaker, “Research Projects at the Design Machine Group,” also participant in panel discussion and programming workshop on generative shapes, National Taiwan University of Science and Technology, Taipei, Taiwan, December 22, hosted by Sheng-Fen Nik Chien

Invited Speaker, for SURP, Summer Undergraduate Research Program, Washington Space Grant Consortium, ESS 490 Seminar, June 26, Physics and Astronomy Auditorium A110, University of Washington

Presentation, “Instant 3D Worlds with Freehand Drawing,” for Gordon Research Conference, Visualization in Science and Education, http://www.grc.org/programs/2003/visualiz.htm July 20-25, Queen’s College, Oxford University.

Invited Lead for Campus Conversation, "Seeing Things as if They Could be Otherwise: a Series of Conversations about the Imagination," Co-sponsored by Lincoln Center for the Performing Arts, the offices of Undergraduate Education and Educational Partnerships and Learning Technologies, University of Washington, January 14, Mary Gates Hall 206, Honors Lounge.

Invited Speaker, for N.A.K.E.D Lunch Series (New Adventures in Knowledge, Expression, and Discovery), "Intuitive Digital Design" February 5, OUGL 220, sponsored by The University of Washington Undergraduate Research Program and the Odegaard Undergraduate Library

Invited Speaker, Honors Brown Bag, "Visual Thinking, Spatial reasoning and Creative Problem Solving," February 27, Mary Gates Hall 206, University of Washington's Honors Program

2002 Invited Speaker, Intel Research Seattle Seminar, "Intuitive Design Interfaces, sketch, gesture and physical computing," November 20, Intel Research Seattle, 1100 NE 45th St. hosted by Sunny Consolvo and Gaetano Borriello, http://seattleweb.intel-research.net/seminars/index.html

Invited Speaker, University of Oregon, Eugene, "Intuitive Digital Design: sketch, gesture and physical interfaces," November 4, 100 Willamette Hall, hosted by Nancy Yen-wen Cheng, School of Architecture & Allied Arts Lecture Series

Invited Speaker, Cornish College of the Arts, "Design and Computation, Design Machine Group," October 16, Cornish North Building, hosted by Cornish Exhibition and Lecture series, Adrian von Egmond.

Invited Speaker, Human-Computer Interaction Seminar, “Design Machine Group: design, HCI and physical computing”, July 18, The Rainbow Room, FS07 William Gates Building, Computer Laboratory, University of Cambridge, hosted by Alan Blackwell.

Invited Speaker, “Design and Computation” at Intelligent Workplace, School of Architecture, Carnegie Mellon University, July 8, hosted by Vivian Loftness.

Invited Speaker, “Design Machine Group: research overview” at the Berkeley Institute of Design (BID) Planning retreat, June 16-18, Hosted by John Canny, Computer Science, University of California, Berkeley, Human Centered Computing consortium (HCC).

Invited Speaker, “Electronic Sketching and the Design Machine Group” for ACM SIGCHI (Special Interest Group in Computer Human Interaction) student chapter meeting, May 7, Loew Hall, University of Washington.

Invited Speaker, “Electronic Sketching and Drawing”, for Six Degrees of Collaboration – Information Technologies that Facilitate Collaboration in Architectural Practice. AIA Technology in Architectural Practice (TAP) Professional Interest Areas (PIA) April 5-6, AIA National Headquarters, Washington, D.C. http://www.aia.org/pia/tap/conference/

Panelist, on ‘Collaboration Strategies in Architectural Education”, with Nancy Yen-Wen Cheng, Mark Clayton, and Martin Fischer, April 6, in AIA Technology Conference, AIA National Headquarters, Washington, D.C.

Invited Speaker, February 22, Calligraphic Interface, for Technical Communication class TC 521, Current Issues of Technical Communication, host Judy Ramey, University of Washington. (EDGE, televised)

Invited talk, “Sketching Interface and Physical Computing”, March 28, Soda Hall, Computer Science Building, UC Berkeley, host Dan Glaser.

Invited Speaker, “Design Machine Group”, March 4, host Omer Akin, School of Architecture, Carnegie Mellon University.

2001 Invited presentation “Sketchy Interfaces” - SIGCHI (Special Interest Group in Computer Human Interaction), Puget Sound, local chapter, 22 Feb

Invited talk, “Current Work at Design Machine Group”, July 12, Industrial Design Engineering Department, Technical University of Delft, Host: Pieter Jan Stappers, ID StudioLab, Jouke Verlinden, Integrated Concept Advancement, Faculty of Design, Engineering and Production

Session chair, for Architectural Analysis, Ninth International Conference of Computer Aided Architectural Design Futures, CAAD 2001 Futures conference, Eindhoven, Netherlands, July 11.

Presentation, “Sketching Interfaces”, ACM CHI 2001 workshop on Early Stages of Design, April 1.

Invited presentation, January 11, CSE lunch colloquium, University of Washington, hosted by Hal Perkins, (Computer Science and Engineering)

2000 Invited Talk, April 4, “Sketching, Design and Collaboration”, at Virtual Worlds Group, Microsoft Research, hosted by Lily Cheng and Linda Stone.

Session chair for 'Experimental Design Systems', eCAADe conference, Education in Computer Aided Architectural Design in Europe, Weimar, Germany, June.

1999 Presenter for Mark Gross, on 'Architecture in the Digital Age: Creativity, Method, and Computer Aided Design', McKinley Invited Lecture, University of Washington, Seattle, October 7.

1998 Participant, DCNet'98 (Design Computing on the Net), an international on-line conference on the future of computer aided architectural design, Nov 30-Dec 3, sponsored by The International Journal of Design Computing, University of Sydney. http://www.arch.usyd.edu.au/kcdc/journal/vol1/dcnet/

Presenter for FTEP, Faculty Teaching Excellence Program sponsored Sundance Lab Demo Day, March 11, 1998, University of Colorado at Boulder

1997 Presenter, Design Reasoning with Drawing with Electronic Cocktail Napkin, at HCIC (Human Computer Interaction Consortium) held in Winter Park, Colorado.

“Thinking with Diagrams in Architectural Design”. In TwD 97, Thinking with Diagrams Interdisciplinary workshop on diagrammatic reasoning, Portsmouth, England (January 9 and 10), Edinburgh

Panelist, on Design and Technology, for FORUM ‘97, National Conference of American Institute of Architectural Students (AIAS), Hyatt Regency Denver, November 28.

1996 Invited presentation, “Right Tool at the Right Time- investigation of freehand drawing convention as an interface to knowledge based design aids”, October 2, at L3D (Center for LifeLong Learning and Design), Computer Science, University of Colorado at Boulder. Led by Gerhard Fischer, http://www.cs.colorado.edu/~l3d/meetings/oct_2.html

Invited presentation, “Paper and pen - A tool for communities of practice”, Mark D Gross, Ellen Yi-Luen Do, Kyle S. Kuczun, Adrienne Warmack, May 20, at L3D Symposium: Computational Support for Continually Evolving Organizational Knowledge Base, hosted by Gerhard Fischer, Jonathan Ostwald and Gerry Stahl, http://www.cs.colorado.edu/~ostwald/symposium/positions/sundance.html

Invited presentation and participation, Computational Support for Continually Evolving Organizational Knowledge Bases Symposium, May 19-21, http://www.cs.colorado.edu/~ostwald/symposium/

1995 “The Electronic Cocktail Napkin” invited lecture, sponsored by the Woo, Chow, Wong and Partners (HK) Visiting Lectureship in Architecture, Hong Kong University, Department of Architecture, September 28, 1995.

“Intelligent Sketching Paper: Drawing Analogies through Electronic Cocktail Napkin” presented at The 2nd International Conference on Computer-aided Design, Sept. 20, 1995, Taiwan, R. O. C.

Session Moderator, International Conference on Computational Models of Creative Design, Heron Island, December 1995, Australia

DESIGN REVIEWS AND WORKSHOPS

2010 Guest Speaker and Workshop leader – Thinking with Diagrams Charrette – Analog-Digital (2D – 3D – 2D), the Spatial Manipulation Workshop, at Southern Polytechnic State University, Department of Architecture, Friday, Sep 17, 2010. (host: Liz Martin)

2008 Guest juror, design review critic for City of Refuge clinic design studio, taught by Tim Harrison, Architecture Program, Georgia Institute of Technology

Guest juror, design review critic for second year studio, taught by Chung-Lun Kuo, Architecture Program, Georgia Institute of Technology

2005 Guest juror, design review critic for first year and fourth year studio, taught by David Burns, Dee Briggs, School of Architecture, Carnegie Mellon University

2004 Guest juror, design review critic for second year and third year studio, taught by Stephanie Bartos, Khee Poh Lam, School of Architecture, Carnegie Mellon University

2003 Guest juror, design review critic for a vertical studio, a sustainable research facility, an investigation of form and methods, taught by Sheng-Fen Nik Chien, National Taiwan University of Science and Technology, Department of Architecture

Guest juror, Physical Computing design projects, taught by Ken Camarata, Arch 498Z, Spring Quarter, Department of Architecture, University of Washington

2002 Guest juror, cyber critic, and "CU-see me" guest, for Virtual Design Studio joint video conferencing design review with National Cheng Kung University, taught by Mao-Lin Chiu and Taysheng Jeng, with Arch 402/504 High Phyber (physical + cyber) Studio taught by Brian Johnson, Department of Architecture, University of Washington

Guest juror, for 3rd year B. Arch studio on a museum design at the Mall of Washington, D.C., March 5, host Omer Akin, School of Architecture, Carnegie Mellon University.

Guest, final presentation and exhibit, for Physical Computing class, Interactive, Responsive Environment projects, Arch 498Z, taught by Ken Camarata, Winter Quarter, Department of Architecture, University of Washington

Guest juror, for Arch 403/505 Digital Design Studio, a digital design built studio of sustainable shelter for artists in Pioneer Square "sinking ship" garage, taught by Jim Nicholls and Mark D Gross, Department of Architecture, University of Washington, June 12

Guest, for final presentation and show, Arch 416, Freehand Drawing in the Digital Realm, taught by Anne Stevens, June 4, Department of Architecture, University of Washington

2001 Guest juror, for class and final presentation and art show, Arch 498Z, Physical Computing, project Memory Box, taught by Ken Camarata, Department of Architecture, University of Washington

Design juror, for Arch 403/505 Digital Design Build, techTronics studio, a digital design studio exploring future building technology, taught by Mark D Gross, Department of Architecture, University of Washington

Guest juror, cyber critic, for Cybrid Internet Café, a digital design studio taught by Brian Johnson, Department of Architecture, University of Washington

Guest juror, final review, Arch Advanced Digital Drawing, taught by Anne Stevens, Arch 498, Department of Architecture, University of Washington

2000 Design juror, cyber critic, for University of Oregon's ARCH 424/524 - Advanced Design Development Media, taught by Nancy Cheng

Design juror, cyber critic, for University of Southern California, Arch 402, Topics Studio, taught by Douglas Noble

Guest juror, critic for Advanced Projects of Freehand Drawing in the Digital Realm, taught by Anne Stevens, Department of Architecture, University of Washington

1999 Guest juror, Freehand Drawing in the Digital Realm, taught by Anne Stevens

1998 Design juror, cyber critic, for Georgia Tech, Arch 8000, Topics Studio, taught by Craig Zimring

Design juror, Department of Architecture, University of Oregon, final studio round robin review

1995 Design Juror, cyber critic, for Harvard GSD's 2302 - Advanced Digital Media, taught by Wade Hokoda and Spiro Pollalis

Design Juror, cyber critic, for Harvard GSD's 2107 - Fundamental of Computer Aided Design, taught by Wade Hokoda and Spiro Pollalis

DESCRIPTIONS OF MY WORK IN THE PROFESSIONAL AND POPULAR PRESS

2012 Mobile Music Touch featured in INFO Exame - Brazilian press, Uma luva mágica, by Cauã Taborda, August 1, 2012. http://info.abril.com.br/noticias/extras/uma-luva-magica-31072012-58.shl

Mobile Music Touch featured in CNET, Musical glove could improve mobility after spinal cord injury, Cutting Edge, CNET News, July 18, 2012 http://news.cnet.com/8301-11386_3-57474375-76/musical-glove-could-improve-mobility-after-spinal-cord-injury/?tag=mncol;txt

ClockReader project featured in May/June edition of Aging Well magazine Vol. 5 No. 3 P. 8, a national newsmagazine for geriatrics professionals, New Technology to Detect, Diagnose AD, by Juliann Schaeffer, - see viewer http://viewer.zmags.com/publication/a9e5ba39#/a9e5ba39/9 or http://www.agingwellmag.com/archive/050712p8.shtml

ClockReader & Mobile Music Touch projects featured in Research Horizons Summer/Fall 2011 issue http://acmelab.gatech.edu/wordpress/wp-content/uploads/2011-Fall-research-horizon.pdf Medical Device Innovation: Georgia Tech Develops Technologies to Solve Health Care Problems, by Abby Robinson, (see pp. 7, 8, 9 for ClockReader, and Mobile Music Touch on p. 15)

2010 Helping Hand project featured in (Dec 16, 2010) – US Scientists Lend a Helping Hand, Associate Press TV, EuroNews – Research-USA http://www.euronews.net/2010/12/16/us-scientists-lend-a-helping-hand/

2009 Helping Hand project featured in CNN Edge of Discoveries – (aired 6/24/2009) http://www.cnn.com/SPECIALS/2008/edge.of.discovery/

Mobile Music Touch/Piano Touch project Featured in The Information Technology Section Of The Chronicle Of Higher Education Article: Composers And Computers Work In Harmony At Georgia Tech's Music Center, By Eric Kelderman, Jan 30, 2009 Issue. http://chronicle.com/free/v55/i21/21a01101.htm

2008 Featured in FreeCollege.com: Scholarships, grants, and university news: “Reinventing the Way People Learn to Play the Piano” http://freecollege.com/2008/11/07/reinventing-the-way-people-learn-to-play-the-piano/

In the news and video of Piano Touch/Mobile Music Touch -- Reinventing the Way People Learn to Play the Piano November 7, 2008 http://www.gatech.edu/newsroom/release.html?id=2268&ga=5 http://www.digitallounge.gatech.edu/entertainmentandmusic/index.html?id=2268&source=DLrss

2006 "Design sketches and sketch design tools," Ellen Yi-Luen Do, in KBS - Knowledge-Based Systems, Volume 18, Issue 8, 1 December 2005, Pages 383-405, is ranked 14th on the Top 25 Hottest articles during Jan-March 2006 by Science Direct in the Subject Area: Computer Science, Journal: Knowledge-Based Systems http://top25.sciencedirect.com/index.php?cat_id=7&subject_area_id=7&journal_id=09507051

2002 Featured in Northwest Science & Technology, "Next Generation Tools for Architects" by Denise Fulton, Autumn 200 issue, pp. 32-37, http://www.nwst.org, http://depts.washington.edu/archi/NW-ST/

Featured in front page of Seattle Post Intelligencer's Local News, September 11, "Picture This: Problem Solving in 3D" by Jake Ellison. http://seattlepi.nwsource.com/local/86491_visual11.shtml

2001 Featured in “Digital Architecture” on Komo TV, channel 4 evening news, November 18, by Natasha Jones from Tech TV. Movie clip at http://depts.washington.edu/redline1/komo4-02.mov

Featured in UW Daily, “UW Design Machine Group unveils new Programs,” by Ken Michelson November 8. Also on-line at http://faculty.washington.edu/ellendo/udaily/udaily-dmg.html

Featured in Daily Journal of Commerce, October 31. “Design Machine Group shows off new tools” by Sam Bennett. Also online http://faculty.washington.edu/ellendo/daily.html

Featured in University Week, October 25. “Computer more than super pencil” by Steve Goldsmith, U Week Vol. 19, #4. Also on-line at http://faculty.washington.edu/ellendo/uweek/archives/2001.10.OCT_25/

2000 “The Poetic Potentials of Computers, a class that takes up the principles of Bauhaus, Bennett Neiman and Ellen Yi-Luen Do. in Arquitectura Digital: Architectural and Digital Design magazine, No. 9, March. Pp 64-69, S.A.I.C. Capital Federal, Argentina http://www.arquitecturadigital.com

Drawing on the Back of an Envelope: a framework for interacting with application programs by freehand drawing, Computers and Graphics, 24 (6) (2000) pp. 835-849 Best Paper Award, Journal in Computers and Graphics (2000)

Featured in Architecture Week, On-line magazine for Architecture, June 14 issue, “The Right Tool at the Right Time“ by B. J. Novitski.
On-line at http://www.ArchitectureWeek.com/2000/0614/tools_1-1.html

Featured in Architecture Week, Education
http://www.architectureweek.com/topics/education.html

Featured in Architecture Week, On-line Digital Library
http://www.architectureweek.com/topics/digital.html

Listed in Who’s Who in CAAD, http://www.arch.ncku.edu.tw/caad/who/list.htm

1999 Listed in International Graphonomics Society Bulletin ISBN 1560-3253
http://www.socsci.kun.nl/psy/igs/BIGS13_01.PDF

Featured in “Today's Research, Tomorrow's Software,” Technology Column, by B. J. Novitski, in Architectural Record, The Millennium Futures to Come, 12.99

“An Analog Digital Language of Vision,” Bennett R. Neiman and Ellen Yi-Luen Do, in Partnership in Learning, Form•Z Joint Study Annual Report, pp. 62-65.autodesys Inc. Also on
http://www.formz.com/web_site_2000/content_pages/Joint_Study/JS99/pgs_062-063.pdf
http://www.formz.com/web_site_2000/content_pages/Joint_Study/JS99/pgs_064-065.pdf

Featured in CADENCE magazine, “The Future of AEC Technology” by Jerry Laiserin, January issue. On-line excerpt at http://www.cadenceweb.com/1999/0199/issuefocus0199.html

1994 Featured in 'Research Horizons', A quarterly publication of the Georgia Institute of Technology, Educational Technology section, page 14, Winter 1994 issue, work on Archie- a case-based design aid for architecture (PI: Janet Kolodner, EduTech Institute and Institute of Cognitive Science)
http://gtresearchnews.gatech.edu/reshor/default.html

COURSE DEVELOPMENT

Happy Healthy Home – Ambient Intelligence and Innovation (COA 8833-ED, also CS 8803-D), 3 credits

Project based research studio, concerning topics of health aware home, social computing, quality of life issue, chronic care for the very young and the very old, ambient intelligence, ubiquitous computing, architectural robotics, etc.

Wiki site https://wiki.cc.gatech.edu/designcomp/index.php/Happy_Healthy_Home_11
Blog site - http://happyhealthyhome11.wordpress.com

Creativity and Design Cognition (COA-8843, and CS 8803-ED, 3 credits)

This course investigates the making of computational methods, models, tools and analysis for creativity, design and cognition. The seminar engages in readings and discussions about the nature and studies of creativity and design cognition, ranging from the literature of design thinking and methods, representations and theories on design, models and computational support for creativity, design process and collaboration.

Wiki https://wiki.cc.gatech.edu/designcomp/index.php/Computing_Creativity_and_Design_Cognition_-11
Blog site http://ccdc11.wordpress.com

Intensive Care Unit of the Future (COA-8823-DZ, HS 8803, CS-8803-ED, joint listing, 3 credits)

Project based research studio, with research methodology include field observations, and interdisciplinary collaboration among students from Architecture, PhD program, Computer Science, Human Computer Interaction, System Engineering, Health System Engineering), co-taught with Craig Zimring, David Cowan, Jeremy Ackerman (MD PhD Emory University)
http://hsi.gatech.edu/icu/

Design Games (COA-8843 ED #86160, and CS 8803-DG #86364, 3 credits)

Research seminar with literature reviews and projects concerning wellness and technology
Wiki site https://wiki.cc.gatech.edu/designcomp/index.php/Design_Games_10
Blog site http://designgames10.wordpress.com/

Onsite Health Center of the Future (COA-8823-DZ, HS 8803 A, CS-8803-ERF, 3 credits, joint listing)

Project based research studio, with research methodology include field observations, and interdisciplinary collaboration among students from Architecture, PhD program, Computer Science, Human Computer Interaction, System Engineering, Health System Engineering), sponsored by Comprehensive Health Services (CHS), co-taught with Craig Zimring, David Cowan, Jeremy Ackerman (MD PhD Emory University
http://www.hsi.gatech.edu/onsitecenter

Happy Healthy Home – Ambient Intelligence and Innovation (COA 8833-ED, also CS 8803-D), 3 credits

Project based research studio, concerning topics of health aware home, social computing, quality of life issue, chronic care for the very young and the very old, ambient intelligence, ubiquitous computing, architectural robotics, etc.

Wiki site https://wiki.cc.gatech.edu/designcomp/index.php/Happy_Healthy_Home_10
Blog site - http://happyhealthyhome.wordpress.com/

Creativity and Design Cognition (COA-8843, and CS 8803-ED, 3 credits)

This course investigates the making of computational methods, models, tools and analysis for creativity, design and cognition. The seminar engages in readings and discussions about the nature and studies of creativity and design cognition, ranging from the literature of design thinking and methods, representations and theories on design, models and computational support for creativity, design process and collaboration.

Wiki site https://wiki.cc.gatech.edu/designcomp/index.php/Creativity_and_Design_Cognition_10
Blog site http://creativedesigncognition.wordpress.com

Emergency Room of the Future (COA-8803-ED, COA-8823-DZ, CS-8803-ED, joint listing, 3 credits)

Project based research studio, with research methodology include field observations, and interdisciplinary collaboration among students from Architecture, PhD program, Computer Science, Human Computer Interaction, System Engineering, Health System Engineering), sponsored by Perkins+Will, co-taught with Craig Zimring, David Cowan, Jeremy Ackerman (MD PhD Emory University), Marvina Williams (RN, Perkins+Will), Marilyn Margolis (RN, MN, Director, Nursing Operations, Emory University Hospital)
http://www.hsi.gatech.edu/~erfuture

Design Games (COA-8843, and CS 8803-ED, 3 credits)

Research seminar with literature reviews and projects concerning wellness and technology
http://dcom.arch.gatech.edu/wiki/index.php?title=Design_Games (wiki/Carmen)

Wellness, Emotion, Sex and Technology (COA-8843, and CS 8803-ED, 3 credits)

Research seminar with literature reviews and projects concerning wellness and technology
http://dcom.arch.gatech.edu/wiki/index.php?title=Wellness%2C_Emotion%2C_Sex_and_Technology

Creativity and Design Cognition (COA-8843, and CS 8803-ED, 3 credits)

Research seminar with literature reviews and design thinking research and protocol analysis
http://dcom.arch.gatech.edu/wiki/index.php?title=Creativity_and_Design_Cognition_08

Design Computing and Everyware (COA-8843, and CS 8803-ED, 3 credits)

Research seminar with literature reviews concerning ubiquitous computing and calm technology
http://dcom.arch.gatech.edu/wiki/index.php?title=Design_Computing_and_Everyware

Pediatric Center of the Future (COA-8803-ED, COA-8823-DZ, CS-8803-ED, joint listing, 3 credits)

Project based research studio, with research methodology include field observations, and interdisciplinary collaboration among students from Architecture, PhD program, Computer Science, Human Computer Interaction, System Engineering, Health System Engineering), sponsored by Perkins+Will and Health Systems Institute Seed Grant, co-taught with Craig Zimring, David Cowan and Gerri Lamb (Emory School of Nursing)
http://www.hsi.gatech.edu/~pedcenter

Creativity and Design Cognition (COA-8843, and CS 8803-ED, 3 credits)

Research seminar with literature reviews and design thinking research and protocol analysis
http://dcom.arch.gatech.edu/wiki/index.php?title=Creativity_and_Design_Cognition

Patient Room of the Future (COA-8803-ED, COA-8823-DZ, ARCH-8823-SK, CS-8803-ED, joint listing, 3 credits)

Project based research studio, with research methodology include field observations, and interdisciplinary collaboration among students from Architecture, PhD program, Industrial Design, Computer Science, Human Factors, Health System Engineering, Emory School of Nursing), sponsored by Steelcase. Co-taught with Craig Zimring, Abir Mullick, Sabir Kahn, David Cowan, Gerri Lamb, Claudia Winegarden
http://cool.coa.gatech.edu/patientroom

Ambient Intelligence for Home Energy (COA-8843-ED 3 credits)

Research seminar and project course, developing ambient devices for monitoring home energy use, supported by Georgia Tech Strategic Energy Initiative (SEI), Creating Energy Options (CEO) grant
http://wiki.cc.gatech.edu/ambient/

Design of Computational Design Systems (48-748, 12 units), Making Interactive Toys

project courses at Carnegie Mellon University

http://code.arc.cmu.edu

Home 2020, Studio X for eXplore (48-550, 48-706, 18 units), Inventing Futures with Design Computing (48-733, 9-18 units)

Project based, experimental studio, with multi-disciplinary enrollment
http://code.arc.cmu.edu/home-2020/html/

Rapid Prototyping Design (39-245, 2 sessions, 18 units, co-taught with Susan Finger)

Project based, hands-on rapid design through physical and virtual prototyping, for engineering students
http://www.cs.cmu.edu/~rapidproto/home.html

Collaborative Learning in Design (12-744, 12 units, co-taught with Susan Finger)
Research seminar on computer supported collaborative learning, learning theory, learner-centered design
http://thekiva.org/designlearning/login.php?loc=%2Fdesignlearning%2Findex.php%3F

Computational Design Colloquium (48-749, 9 units),

Weekly talks and discussion with faculty and students on campus, Carnegie Mellon University
http://code.arc.cmu.edu/~ellendo/lablunch/schedule.txt
http://code.arc.cmu.edu/~ellendo/lablunch/schedule-s05.txt
http://code.arc.cmu.edu/~ellendo/lablunch/schedule-f04.txt

Computational Design Research Seminar (48-781, 12 units)

Research seminar with reading and discussions about HCI, Ubiquitous Computing and Design Computing
http://code.arc.cmu.edu/~ellendo/reading.txt

Visual Thinking and Spatial Reasoning (GIS 172) - General Interdisciplinary Studies (5 credits)

Early Fall Start and Honors Program, University of Washington
http://depts.washington.edu/efs/courses.html
New seminar course for undergraduate students
Development of hands-on interactive learning modules and web site
http://courses.washington.edu/visual

Visual Thinking and Creative Problem Solving (GIS 197D) (1 credit)

Freshman Seminar Program, University of Washington
http://depts.washington.edu/seminars/
New seminar course for undergraduate students
Development of hands-on interactive learning modules and web site
http://courses.washington.edu/creative

Design Computing Theory (Arch 587) (3 credits)

Department of Architecture, University of Washington
New seminar course. Development of course curriculum and web site
http://courses.washington.edu/arch587
Introduction, reading, projects and discussions of design methods and theory for the studies of design practice, design computing and design thinking, including style analysis, shape grammars, Artificial Intelligence and Cognitive Science.

Computer Graphics Programming (Arch 498) - now Arch 486 (3 credits)

Department of Architecture, University of Washington
New seminar course. Development of course exercises and web site
http://courses.washington.edu/lisp
Introduction to design and implementation of computer graphics programs (in Lisp) for design thinking.

Design Computing Seminar (Arch 498/600) - now as Arch 484 (3 credits)

Department of Architecture, University of Washington
New seminar course. The course has continued since 1999 - present.
http://courses.washington.edu/lablunch
Introduction, reading and discussions of a variety of design computing topics

Digital Design Media (Arch 311) (3 credits)

Department of Architecture, University of Washington
New seminar course. Development of course exercises and web site
http://courses.washington.edu/arch311
Introduction of 2D and 3D digital media and integration with physical media in design process

Computers in Architecture (introduction to computing in design, Arch 370) - now Arch 380 (3 credits)

Department of Architecture, University of Washington
Revised lecture and lab course, development of course exercises and web site
http://courses.washington.edu/arch370
Fundamental of computer applications for architectural design
Collaborated with University of Oregon's Arch 484/584 course (N. Cheng) on investigation and analysis of Bernard Maybeck's architecture elements (Winter 2000).

Digital Design Studio (Arch 402/505, Arch 503) (6 credits)

Department of Architecture, University of Washington

New studio course, studio web site, resources and CD-ROM production
http://dds.caup.washington.edu/DDS_sp2000/
Downtown Seattle open space, multi-functional, complex commercial buildings.
Participated community workshops and downtown city design forum (CityDesign).

New studio course, studio web site, resources and CD-ROM production
http://dds.caup.washington.edu/a00/index.html
Northgate redevelopment, Community Center, Library and open space
Participated in community workshops.
Collaborated with Landscape Studio LA 504 (K. Hill).

New studio course, studio web site, resources and CD-ROM production
http://dds.caup.washington.edu/au01/index.html
People, Places and Play, redevelopment of pedestrian-friendly 5th Avenue
Participated community workshops and presentations.
Collaborated with Urban Design Studio UDP 508 (D. Abramson)
Joint charettes with School of Community and Regional Planning, (P. Gurstein, E. McDonald) at University of British Columbia, Canada

New studio course, studio web site, resources and CD-ROM production
http://courses.washington.edu/studio03/
Inventing Futures: Spaces, Computing and Toys
Experimental studio investigated in inventing future built environments
Projects include flexible construction toy, portable room, responsive media space, morphing modular construction, interactive sound space, adjustable urban plaza seating, and energy conservation tutor

Digital Design Dreams: Developing Design with Computers (Arch 498) - now Arch 575 (3 credits)

Department of Architecture, University of Washington
New seminar course, web site and resources
http://courses.washington.edu/arch498u
Development, discussion, preparation of independent projects and thesis using digital media

Managing Architecture & Planning Computer Facilities (ENVD 3919) (3 credits)

College of Architecture and Planning, University of Colorado at Boulder
New seminar course and web site

Weekly seminar on various topics, and hands-on experience of computer resources

Graphics Programming (ENVD 3252) (3 credits)

College of Architecture and Planning, University of Colorado at Boulder
Revised seminar course.
Introduction and implementation of computer software to explore design process with graphics.

Alias Studio (ARCH/ID 4904) (5 credits)

College of Architecture, Georgia Institute of Technology
New course
Design of special event portable service carts. Sponsored by Coca Cola, Inc.

Advanced Computer Graphics (ARCH 8951) (3 credits)

College of Architecture, Georgia Institute of Technology
New course
Introduction of computer modeling, rendering, and animation using SGI's Alias software

Multimedia and Animations (ARCH 8000) (3 credits)

College of Architecture, Georgia Institute of Technology
New course
Advanced topics in multi-media design presentations and animation making.

DOCTORAL COMMITTEE

Adviser

Chih-Pin Hsiao	Design Computing, School of Architecture, (Fall 2010 – Fall 2015), Toward Semantic Model Generation From Sketch And Multi-Touch Interactions Dissertation defense 9/4/2015, ETD approval 11/11/2015, published 1/7/2016, Advisor: Ellen Yi-Luen Do, Committee: Charles Eastman, Baabak Ashuri, James Foley, Mark Gross
Nicholas Davis	Enabling Creative Artificial Intelligent Agents to Understand and Collaborate with Human Users in a Real Time Drawing, Human Centered Computing, College of Computing, Georgia Institute of Technology, proposal 2013 (Fall 2010 – present) Defense November, 2016
Vicki Haberman	Design Computing, Georgia Institute of Technology (Spring 2010 – Spring 2012) Strategic Approach for Influencing Design Decisions Associated with Inclusive Mobile Phone User Experience – a case study, Dissertation proposal 9/12/2011, "Designing for Diverse Users – A Case Study on Touchscreen Smartphone Customization" Dissertation defense, 3/26/2012, ETD approval April 4, 2012. Advisor: Ellen Yi-Luen Do, Committee: Jim Budd, Alexandra Mazalek, Michael L Jones, Bruce Claxton.
Hyungsin Kim	Human Centered Computing, College of Computing, Georgia Institute of Technology (Spring 2009 – Spring 2013)
Paula Gomez	Design Computing, Georgia Institute of Technology, College of Architecture (Fall 2008 – present), Qualifying paper, proposal defense Feb 14, 2013, final defense Jan 2017.
Elif Yagmur-Kilmici	Design Cognition, Georgia Institute of Technology, College of Architecture (Fall 2006 – Fall 2010), proposal Jan 7, 2009, dissertation defense June 28, 2010 "3D Mental Visualization in Architectural Design," Co-chairs with Chuck Eastman, Nancy Nersessian (ETD approval 7/30/2010)
Chung-Lun Kuo	The role of sketching in design, design tools and early detection of child illness, Georgia Institute of Technology, College of Architecture (Spring 2008 – 2011) on qualifying paper

Sherif Morad AbdelMohsen	Intelligent sketching and physical computing tools for design, Georgia Institute of Technology, College of Architecture (Fall 2006 – Spring 2010, proposal defended)
Seunghyn (Tina) Lee	Design Cognition, Georgia Institute of Technology, College of Architecture (Fall 2009 –2010)
Pedro Soza	Design Cognition, Georgia Institute of Technology, College of Architecture (Fall 2009 –Spring 2011), on Qualifying Paper
Altug Kasali	Design Cognition, Georgia Institute of Technology, College of Architecture (Fall 2008 – 2009)
Maher El Khadi	Design Computing, Georgia Institute of Technology, College of Architecture (Fall 2007 – Spring 2008)
Loping Wei	Design Computing, Computer-mediated communication or/and human-computer interaction with digital media arts and entertainment, Georgia Institute of Technology, College of Architecture (Fall 2006 – Fall 2008) On the Context of Context - Context Theory and Human-Computer Interaction (Qualifying paper approved 2008)

Committee

Kurt Luther	(Human Centered Computing), School of Interactive Computing, Georgia Institute of Technology Dissertation Proposal (May 6, 2009), Final defense July 11, 2012, Supporting and Transforming Leadership in Online Creative Collaboration, Chair: Amy Bruckman, ETD approval 8/25/2012
Hui Cai	(Architecture, Culture, Behavior), Analyzing and Coding Inspirations in Design Cognition, College of Architecture (Fall 2007 – present) Comprehensive Exam (2nd reader for Major), October 14, 2009, “To Make "Invisible Architecture Visible": A Study of Nursing Unit Typology and Caregivers’ Face-to-face Communication in Two Old and Two New Nursing Units in China” Proposal (May 12, 2010), final defense May 4, 2012, Cultural Aspects of Nursing Unit Typologies:A Comparative Study on Nursing Unit Typologies in the U.S. and China Chair: Craig Zimring
David Joyner	(Human Centered Computing), School of Interactive Computing, Georgia Institute of Technology, (Fall 2010 – qualifying exam 4/11/2011), Proposal defense 4/22/2013, Chair: Ashok Goel. Committee: Gautam Biswas, Jim Foley, Mark Guzdial, Ellen Yi-Luen Do, final dissertation defense in 2014
(Svet)Lana Yarosh	(Human Centered Computing), School of Interactive Computing, Georgia Institute of Technology, Supporting Remote Synchronous Communication between Parents and Young Children, Proposal defense March 12, 2010, final defense March 16, 2012, ETD approval, April 4, 2012, Chair: Gregory Abowd, Committee: Amy Bruckman, Ellen Yi-Luen Do, Panos Markopoulos and Elizabeth Mynatt
Tanya T Markow	(Human Centered Computing), School of Interactive Computing, Georgia Institute of Technology Dissertation Proposal (Dec 17, 2010) Passive Haptic Rehabilitation and Learning, Dissertation Defense, 3/9/2012, Mobile Music Touch: Using Music for Passive Haptic Rehabilitation and Learning, Chair: Thad Starner, Committee: Gregory Abowd, Deborah Backus, Ellen Yi-Luen Do, and Melody Moore-Jackson, ETD approval 3/30/2012
YoungSeon Choi	(Architecture, Culture, Behavior), “Healthcare Architecture and Falls: Investigation on Physical Environmental Factors Affecting the Likelihood of a Fall” Architectural, Cultural, Behavior, College of Architecture, proposal May 4, 2010, final defense, Nov 9, 2011, The Physical Environment and Patient Safety: An Investigation of Physical Environmental Factors Associated with Inpatient Falls, ETD approval Nov 21, 2011, Chair: Craig Zimring
Hyun-Bo Seo	(Architecture, Culture, Behavior), College of Architecture, An Investigation on Task Interruptions and the Physical Environment for Human Performance, Dissertation defense, Jun 23, 2011, ETD approval, July 14, 2011, Chair: Zimring

Carrie Bruce	(Human Centered Computing), School of Interactive Computing, Georgia Institute of Technology (Spring 2009 – qualifying exam) April 14, 2009, Chair: Melody Moore-Jackson, Facilitating Participation in Adults with Vision Loss through Real-Time Descriptive Exhibit Mediation, proposal defense, May 4, 2011, Chair: Bruce Walker, Committee: Ellen Yi-Luen Do, Beth Mynatt, Jon Sanford, final dissertation defense in 2013
Iulian Radu	(Human Centered Computing), School of Interactive Computing, Georgia Institute of Technology (Spring 2009 – qualifying exam) April 21, 2009, Chair: Blair MacIntyre, proposal defense 4/15/2013, Chair: Blair MccIntyre, committee: Ashok Goel, Jim Foley, Ellen Yi-Luen Do, Final Defense July, 2016.
Jae-Min Lee	(Design Computing), College of Architecture, Georgia Tech, Dissertation Proposal, "Automatic Checking of Pedestrian Circulation Rules - Development of an integrated method for automatic checking of pedestrian circulation rules," March 26, 2009, Dissertation defense (May 22nd, ETD approval July 6th) Chair: Eastman
Brian Schrank	(Digital Media) Ivan Allen College, Play Beyond Flow: A Theory of Avant-Garde Videogames (10/29/2010 defended, ETD approval 11/11/2010) Chair: Jay David Bolter
Daniel Saakes	(Industrial Design Engineering), Technical University Delft, the Netherlands Shape Does Matter – designing materials in products, Chair: Pieter Jan Stappers (dissertation defense Nov 2010)
Yeonjoo Oh	(Computational Design), School of Architecture, Carnegie Mellon University, Toward A Theory of Design Critiquing – The Furniture Design Critic Program, Carnegie Mellon University (Fall 2004 – Fall 2010, PhD candidate since 2007, proposal 2009, defense 9/13/2010)
Mario Romero	(Human-Centered Computing), College of Computing, Georgia Tech, Activity Characterization, (Jan 2007 – Spring 2009) Dissertation defense, June 24, 2009, Chair: Gregory Abowd
Jeonghwa Yang	(Human Centered Computing), College of Computing, Georgia Tech – Dissertation final defense (October 19, 2009), Eden: An Interactive Home Network Management System (Committee), Chair: Keith Edwards
Fatima Boujarwah	(Computer Science), School of Interactive Computing, Georgia Institute of Technology (Spring 2010 – Qualifying exam), April 8th, 2010, Chair: Gregory Abowd
Nazneen	(Computer Science), School of Interactive Computing, Georgia Institute of Technology (Fall 2010 – Qualifying exam), December 6th, 2010, Chair: Gregory Abowd
Jennifer Stoll	(Human Centered Computing), School of Interactive Computing, Georgia Institute of Technology (Spring 2009 – qualifying exam) March 30, 2009, Chair: Keith Edwards
Geoffrey Thomas	(Digital Media), LCC - School of Literature, Communication, and Culture, Georgia Institute of Technology, Ivan Allen College of Liberal Arts (Fall 2008 –2010) defense March 2010, ETD approval April 1) Chair: Jay Bolter
Hyun Jean Lee	(Digital Media), LCC - School of Literature, Communication, and Culture, Georgia Institute of Technology, Ivan Allen College of Liberal Arts (Fall 2008 graduated)
Kemaporn Jayanetra	(Architecture, Culture, Behavior), Restorative Environments for the Hospice Patient Room, College of Architecture (Fall 2006 –), Chair: Craig Zimring
Pegah Zamani	(Morphology), Spatial Dimension of Grouping: A Morphological Critique of Galleries in the High Museum of Art, College of Architecture, Georgia Institute of Technology (Fall 2006 – 2008, defense 08), Chair: John Peponis
Eduoard Din	(Design Computing), Unfolding Geometries: Abstract Structures and Emergent Symmetries – The Smith House Case Study, College of Architecture, Georgia Institute of Technology (Fall 2006 – Summer 2008, dissertation defense and degree confirmation, 08), Chairs: Thanos Economou and Chuck Eastmans

Tae-Jung Yun	(Computer Science), School of Interactive Computing, Georgia Institute of Technology (Spring 2010 – Qualifying exam), April 9th, 2010, Chair: Gregory Abowd
Michael E Helms	College of Computing, Georgia Tech (Fall 2008 – qualifying exam), proposal defense, September 1, 2011, Solution Based Problem Evolution and Problem Inception in Biologically Inspired Design, Chair: Ashok Goel
Susan Wyche	(Human Centered Computing), College of Computing, Georgia Tech, Intersection of religion, qualitative research, ubiquitous computing and creative design (Jan 2007 qualifying exam), Chair: Beki Grinter
Zach Pousman	(Human-Centered Computing), College of Computing, Georgia Tech Information Visualization for Social Interactions at Home, (Jan 2007 – qualifying exam)
Chris Le Dantec	(Human Centered Computing), Design for Dignity and Value Transfer Design, College of Computing, Georgia Tech (Jan 2007 – qualifying exam), Chair: Keith Edwards
Gabe Johnson	(Computational Design), Freehand sketching interface for rapid manufacturing, Designosaur and Flat CAD, Carnegie Mellon University (Fall 2005 – 2012)
Tony Sheng-Kai Tang	(Computational Design), Story Telling Cubes, Computational Design, Carnegie Mellon University (Fall 2005 – 2007)
Sora Key	(Computational Design), Design Tools for Architectural Qualities, Computational Design, Carnegie Mellon University (Fall 2005 – 2008)
Chun-Heng Ho	(Design Cognition), "Spatial Cognition in Design", Dissertation Defense presented in September 2006, Georgia Institute of Technology, Chair: Chuck Eastman
Tsung-Hsien Wang	(Computational Design), Tangible Notes, Computational Design, Carnegie Mellon University (Fall 2005 – Spring 2006)
Yu-Chang Hu	(Computational Design), Design Tools, Computational Design, Carnegie Mellon University (Fall 2005 – Spring 2006)
Mike Weller	(Computational Design), Architectural Robotics, self-configuring building blocks, Computational Design, Carnegie Mellon University (Fall 2004- present, PhD candidate since 2006, proposal 2009)
Ming-Chun Lee	(Architecture), Visualization of Urban Design and Planning Processes, University of Washington, Interdisciplinary Ph.D program in Urban Design and Planning (Fall 2002 - 2004)
Ken Camarata	(Architecture), Human Computer Interaction with Physical Computing, University of Washington, Ph.D. Program in Built Environment, University of Washington, College of Architecture and Urban Planning (Fall 2003 – 2004)
Daniel Glaser	(Interdisciplinary PhD) Space Series: an experimental software prototype for visualizing daylighting", University of California, Berkeley (98-2004). Co-Chair with Professor John Canny of Computer Science, University of California, Berkeley. (Fall 1998 - 2004) (Interdisciplinary Ph.D. Program, attended commencement Spring 2004)

External Examiner:

Daniel Saakes	(IDE), Shape Does Matter – designing materials in products, PhD. Industrial Design Engineering, Technical University Delft, the Netherlands, Chair: Pieter Jan Stappers (Nov 2010)
Rohan O'Neil Bailey	(Architecture) The Digital Design Coach: Enhancing Design Conversations in Architectural Education, Ph.D., Victoria University of Wellington, New Zealand. (2004), Chair: David Kernohan

MASTER THESIS COMMITTEES

Chair:

Nicole Blackwell	(Human-Computer Interaction) Vidal Locale (Local Food Guide) – Fall 2011 – Fall 2012)
Andrew Harbor	(Human-Computer Interaction) Crowd Sourcing Contribution (neighborhood finder) – Spring 2012 – Fall 2012)
Marc Carroll	(Human-Computer Interaction) Hand-writing based Social Media Applications (Fall 2012 – present)
Nitya Noronha	(Human-Computer Interaction) Remind Me (Fall 2012 – Spring 2013)
Srikanth Jalasutram	(Industrial Design), Design of an intelligent posture guidance system for workspace seating, thesis defense May 17, 2011, ETD approval July 5, 2011
Halley Profita	(Industrial Design), The Social Acceptability of Wearable Technology Use in Public, An Exploration of the Societal Perceptions of a Gesture-based Mobile Textile Interface, thesis defense May 19, 2011, ETD approval May 23, 2011
Stephanie A Allen	(Human-Computer Interaction), Sew Easy - Assistive Technology for Garment Construction and Home Decoration Projects, presented Spring 2011
Stephen W Garrett	(Human-Computer Interaction) Mobile Framework for Audience participation with Dance Performance, co-chair with Jason Freeman, presented Spring 2011
Szu-Chai Lu	(Human-Computer Interaction) Creativity Support Tools and mediRobbi – robotic companion for pediatric patients in hospital visits, presented Spring 2011
Navin R. Maharaj	(Computer Science) Toddler Drawing Application – presented Summer 2011
Viraj V. Sapre	(Human-Computer Interaction) Item Recalls and Cognitive Stimulation Games, Spring 2011
Nibha Jain	(Industrial Design) “Exploring Interactive Tangrams For Teaching Basic School Physics” (presented in May, ETD approval May 24, 2010), committee members: Abir Mullick, Ali Mazalek
Chris Wen-Hong Neoh	(Industrial Design) “Designing a Portable Data-Capture Device for Clinicians Transitioning to Electronic Medical Records in Outpatient Environments,“ Master of Industrial Design, presented April 28, 2010
Jasmine Williams	(Industrial Design) “Locomotion Storytelling: Kinesthetic Intelligence and Tangible Objects in Storytelling Creativity“ presented April 28, 2010, Master of Industrial Design
Brian Holcombe	(Industrial Design) “Designing Wireless Mesh Network for Emergency Service after Disaster,” Master of Industrial Design, to present in August 2010
Carol Bales	(Human-Computer Interaction) Organization of Creative Designers’ Environment, HCI, Spring 2009
Marc Lawson	(Human-Computer Interaction) Helping Hands – Light-weight RFID Glove for Visually Impaired, HCI, Fall 2009 – 2011 presented
John Ring	(Computer Science), College of Computing, Trailing References, investigation and analysis of research citations, Fall 2009
Jesse Smith	(Human-Computer Interaction) Business Plan for Computing Innovations, CS, Fall 2009
Young Suk Cho	(Computer Science) Handwriting Recognition for Automatic Clock Drawing Test project, CS, Spring 2010 - present

Anupam Guah	(Computer Science) Automatic language Understanding and Diagnosis for Medical treatment conversation, CS, Fall 2009, and Spring 2010
David Joyner	(Human-Computer Interaction) Investigating Optical Chess game on a Tangible Tabletop, CS, Fall 2009
Rung-Yu Tseng	(Design Computing) “How Information and Computing Technology (ICT) Facilitate the Life for Children with Autism Spectrum Disorder (ASD), presented in November 2008, Master of Science in Design Computing, Georgia Institute of Technology
Travis Fischer	(Computer Science) “Sketch-to-Robot interaction, Fall 2006, Fall 2007
Markus Eng	(Architecture) "FlexM: A Flexible Design Construction Toy", presented in June 2004. Project received 2003 College Graduate Student Award for Interdisciplinary Research.
Doo Young Kwon	(Design Computing) “ArchiDNA: Shape Generative System for Rule-based Operations,” Master of Science in Design Computing, presented November 2003.
Yeonjoo Oh	(Design Computing) "Design Evaluator: sketching interface with design evaluation," Master of Science in Design Computing, presented November 2003.
Babak Ziraknejad	"Intelligent Home Environment, e-Frame and interactive furniture" Master of Science in Design Computing, presented in June 2004.
Chen-Je Huang	(Design Computing) "MouseHaus Table: a physical interface for group interaction with urban pedestrian simulation," Master of Science in Design Computing, presented November 2003. Project received 2003 College Graduate Student Award for Interdisciplinary Research. University of Washington
Golnaz Mohammadi	(Design Computing) "Design Pattern Generator: parametric modeling of geometry," Master of Science in Design Computing, presented in June 2004.
Peter St. George	(Landscape Architecture) “The Virtual Client: an Exploration into the Teaching of Digital Media,” Landscape Architecture, January 2005. University of Washington
Mike Weller	(Design Computing) "Espresso Architecture," self-organizing robotic building blocks for live/work space, presented in June 2003. University of Washington
Julie Chen	(Architecture) “DAM: Digital Animation Museum”, a design of animation theater and wireless communication device, presented May 2002, University of Washington
Ming-Chun Lee	(Architecture) “Space Maker: a symbol based 3D computer modeling tool for early schematic development of the architectural design,” presented November 2001. University of Washington
Kennith A. Camarata	(Architecture) “Navigational Blocks, an interplay between the physical and the virtual,” presented in June 2001. Thesis Award. University of Washington
Robert M. Harris	(Landscape Architecture) “Digital Sandbox: integrating design and analysis in a new digital earth forming tool”, Landscape Architecture, University of Washington, presented in May 2001.
Gabriel Q. Hanson	(Architecture) “Connection, Orientation, and Transition: Exploring Place-Based Physical Environment in a Digital Media Firm,” presented in March 2001. University of Washington

Member:

Sang Won Lee	(Music Technology) ETD approval, May 21, 2012, Audience Participation Using Mobile Phones as Musical Instruments, Chair: Jason Freeman
Shabnam Ghaffari	(Industrial Design & Business) Will it Fit? Consumer Decision Making in Online Shopping Environments, (defended 12/17/2010, ETD approved 1/21/2011), Chair: Nicolas H Lurie
Pauline Chan	(Digital media) Narrative participation within Game Environments: Role-Playing in MMOs, Master of Digital Media, School of Literature, Communication, and Culture, Georgia Institute of Technology Chair: Celia Pearce (9/200 – 10/28/2010)
Seunghyun Tina Lee	(INDUSTRIAL DESIGN), "A System For Distributed Collaboration That Supports Interaction And Sharing Information", Master of Industrial Design, College of Architecture, Georgia Institute of Technology, June 2009
Tania Bilir	(Digital Media) "Economic relationships observed in an online game: Runescape", Master of Digital Media, School of Literature, Communication, and Culture, Georgia Institute of Technology, Chair: Janet Murray, presented July 14, 2009.
Courtenary Bird	(Digital Media) "Enabling Technological Literacy in the Classroom ", Master of Digital Media, School of Literature, Communication, and Culture, Georgia Institute of Technology, thesis presentation June 14, 2009. Chair: Carl DiSalvo
Abhishek Gupta	(Digital media) "User Experience Enhancements for Web Browsers," Master of Digital Media, School of Literature, Communication, and Culture, Georgia Institute of Technology, April 2009
Heerin Lee	(Digital Media) "Connected Space," Master of Digital Media, School of Literature, Communication, and Culture, Georgia Institute of Technology, April 2009
Bobby Schweizer	(Digital Media) "Representations of the City in Video Games," Master of Digital Media, School of Literature, Communication, and Culture, Georgia Institute of Technology, March 2009
Preechaya Therakomen	(Architecture) "Mouse.class: Experiments for Exploring Dynamic Behaviors in Urban Spaces", presented in November 2001, University of Washington
Dustin Eggink	(Architecture) "Smart Objects: Constraints and Behaviors in a Collaborative Design Environment", presented in May 2001, University of Washington
Luis F. Borrerro	(Architecture) "deliver E room: a new physical space for the residential units to come," presented March 2001, University of Washington
Brian J. Palidar	(Architecture) "Live and Direct: A Research and Development Facility for Robotics and Artificial Intelligence Applications," presented in March 2000, University of Washington

External Examiner:

Zhenyu (Cheryl) Qian	(Interactive Arts and Technology), A Pattern Approach to Support Digital Interpretation, Master of Applied Science, School of Interactive Arts and Technology, Simon Fraser University, Chair: John Nesbit, Committee: Robert Woodbury, Jim Bizzocchi, April 2004

Doctoral Dissertation Committee Member (as Graduate School Representative):

Yi Li	(Computer Science and Engineering), PhD, Committee: Linda Shapiro, Jeffrey Bilimes, Marina Meila, Steve Tanimoto, General Exam, March 5, 2004.
Eric S. Wiltshire	(Musical Arts) Doctoral exam, University of Washington, Chair: Steven Morrison, General Exam March 2003, qualify exam and dissertation proposal defense, January 9, 2004

Toshie Ueda	(Musical Arts) “Life and Music style of Toru Takemitsu”, Doctoral of Musical Arts, University of Washington Chair: Professor Craig Sheppard. General Exam May 29, 2002, Analysis, Comparison, and History of Composers,” dissertation defense, June 2003
Diana Mae Greenleee	(Anthropology), “Accounting for subsistence variation among maize farmers in Ohio valley prehistory”, PhD, University of Washington, May 10, 2002 Chair: Professor Robert Dunnell
Raydell C Bradley	(Musical Arts) “A Study of the Liturgical and Programmatic Aspects of Selected Wind Ensemble Compositions of David Gillingham”, Doctoral exam, University of Washington, June 2000

GRADUATE INDEPENDENT STUDIES AND PROJECTS - PHD

Sabri Gokmen (DC)	PhD in Design Computing, School of Architecture, Georgia Institute of Technology Computing Designs with Generative Systems Spring 2011
Paula Gomez (DC PhD)	PhD in Design Computing, School of Architecture, Georgia Institute of Technology Behavior Imaging and Information Visualization of Interactions in a Room, Spring 2010-11
Pedro Soza (DCog PhD)	PhD in Design Cognition, School of Architecture, Georgia Institute of Technology Investigating Categorical or Hierarchical Perception of Shapes in Design (Spring 2010 - 11)
Chih-Pin Hsiao (DC PhD)	PhD in Design Computing, School of Architecture, Georgia Institute of Technology Tangible Interface for Architectural modeling and design, Fall 2010
Hyungsin Kim (HCC PhD)	PhD in Human Centered Computing, Georgia Institute of Technology Virtual Grocery Hunter, and Accessing Items for Visually Impaired, Spring 2009
Iulian Radu (HCC PhD)	PhD in Human Centered Computing, Georgia Institute of Technology Investigating Mental Model for Collaborative Augmented Reality, Summer 2008
Chung-Lun Kuo (DC PhD)	PhD in Design Computing, School of Architecture, Georgia Institute of Technology Computing Activities for Senior Housing, Nocturia and Health Aware Home (Fall 2010)
Sherif Abdel Mohsen (DC PhD)	PhD in Design Computing, School of Architecture, Georgia Institute of Technology Thesis hour (12) - An Ethnographically Informed Analysis of Design Intent Communication in BIM-Enabled Architectural Practice (Spring 2010)
Heng Yang (CS PhD)	PhD in Computer Science, School of Computer Science and Engineering, Northwestern Polytechnical University, Xi’an, 710072, P.R. China (2009) Pattern Recognition
Peijung Cheng (Design PhD)	PhD, Graduate School of Design, National Yunlin University of Science and Technology, Yunlin, Taiwan, ROC (Fall 2009 – Spring 2010) Design Ideation Study
Altug Kasali (DCog PhD)	Analyzing Design Activity and Information Visualization of Data (Spring 2009)
Hugo Sheward Garcia (DC PhD)	PhD, Design Computing, Analyzing Comprehension through Highlighting Interaction on Document Reading, Spring 2008
Mamoun Sakkal (NME, PhD)	Near and Middle Eastern Studies, University of Washington Research outline for Islamic architecture geometry analysis, computational tools to support geometry generations and verification of historical buildings with analysis Fall 2001
Kathleen Kern (UDP PhD)	Development and implementation of Jake-O-Meter, University of Washington a database project and game for urban design and education. The Jake-O-Meter provides aspiring streetscape designers with a collection of example streets and their properties from Alan Jacob’s book “Great Streets”. Fall 2000, Winter 2001, Spring 2001.
DonQiu Qian (ENVD PhD)	NetDraw, a Collaborative Design Drawing Program in Java, University of Colorado Light Weight Java-based computer aided design Toolbox

Fall 1998 and Spring 1999

GRADUATE INDEPENDENT STUDIES AND PROJECTS - MASTERS

Charmant Kai Tan (MS HCI)	Ambient Alert system, Spring 2012
Howard Wang (Arch)	Designing Urban Space with Ubiquitous Computing and Social Media, Spring 2010
Nibha Jain (ID)	Tangible Tangrams for Physics Learning, Spring 2010
Marc Lawson (HCI)	Master of Science in Human-Computer Interaction, Georgia Institute of Technology Talk 2 the Hand, and Helping Hand, Spring 2009
Kevin Huang (CS)	Piano Touch – passive haptic learning, Spring 2009
Carol Bales (HCI)	Master of Science in Human-Computer Interaction, Georgia Institute of Technology Computer Support Tools for Problem Finding, Summer 2008
Michael Goodwin (MArch)	Master of Architecture, Georgia Institute of Technology Understanding Water as more than just H2O, Summer 2008
Seunghyun (Tina) Lee (ID)	Master of Industrial Design, Georgia Institute of Technology Tools and platform for collaborative creative design, Fall 2008
Darren Scott Appling (CS)	Master of Science in Computer Science, Georgia Institute of Technology Statistic Modeling of Language Translation, Summer and Fall 2008
Michael Goodwin (MArch)	Master of Architecture, Georgia Institute of Technology Green Aware Home - Making Aware Home Sustainable, Fall 2007
Yeonjoo Oh (MS)	Master of Science in Design Computing, University of Washington Visualization and Design Evaluation, Fall 2002 and Winter 2003
Doo-Young Kwon (MS)	Master of Science in Design Computing, University of Washington Creative Shape Generative Systems and Toys, Fall 2002 and Winter 2003
Chen-Je Huang (MS)	Master of Science in Design Computing, University of Washington Tangible MouseHaus – a tangible user interface for urban pedestrian simulation, and Tangible User Interface Toolkit. Spring, Summer and Fall 2002, Winter 2003
Sebastien Bund (Arch)	Visiting Graduate Student, Centre de Recherche en Architecture et Ingénierie, CRAI, France Sun Light Analyst, a system prototype development for 3D visualization of direct sun light project in a project building in a period of time, Summer 2002
Ming-Chun Lee (Arch + UDP)	As M Arch student, worked on diagram symbols to 3D space creation, Fall 2001 Winter, Spring and Summer 2002 on FormWriter project with OpenGL interface. Incoming Interdisciplinary Urban Design and Planning Ph.D. Program Fall 2002. University of Washington
Julie Chen (Arch)	Literature search of wireless technology research, Personal Digital Assistant, mobile phone and Bluetooth technology. Fall 2001, University of Washington Programming a point-draw-animate software on PDA. Winter 2002
Nan-Ching Tai (Arch)	Design & Organization of Multi-Media Information Presentation, Summer 2000 Bubble diagram editor with square footage constraints, Winter 2001
Michael P. Weller (Arch)	Implementation of Web Interaction using Common Gateway Interface (CGI) Language and Perl Script, Summer 2000 Community Tool, Sharable Magnetic Poetry on the Web, Fall 2000, Dynamic Web Site builder, Winter 2001 XML Site Engine, Fall 2001, Winter and Spring 2002

Dustin Eggink (Arch)	Valle Scholarship Development of Smart Objects in Web 3D, Spring, Summer, Fall 2000
William Washington (TC)	(Technical Communication) Information Organization and Literature Survey for Digital Desk, Intelligent Work Environment, Summer 2000, Winter 2001
Sitt Therakomen (Arch + UD)	Developing Storyboards and Video Documentation of Prototype System
	University Heights: interface and proposal of chat room utility with Virtual Reality Modeling Language (VRML), Summer 2000
	MausHaus, a vision simulation of pedestrian's activity in a virtual environment to visualize the pattern of movements and choices of path selections. Fall 2000
Preechaya Therakomen (Arch)	Production and vision video of prototype system for virtual garden, and research on environmental simulation of pedestrian movement pattern in an Urban open space, Summer 2000, University of Washington
	Development of tools for pedestrian behavior simulation, Fall 2000, Winter 2001
Doddy Samiaji (Arch)	Development and implementation of Development Simulator, University of Washington A program that converts building type, floor area ratio, parking requirements, etc from a spreadsheet to a 3D CAD design environment. Winter 2001, Spring 2001
Thomas Jung (Arch)	Visiting Graduate Student, Centre de Recherche en Architecture et Ingénierie, CRAI, France, Annotation on 3D VRML Environment Immersive Redliner, and design competition, Library of Information Age Fall 1998, and Spring 1999

UNDERGRADUATE INDEPENDENT STUDIES AND SPECIAL PROJECTS

Sravya Kotte (CS)	Junior, Computer Science, Georgia Institute of Technology Designing Cognitive Stimulation Game, Spring 2011
Sameer Yadav (CS)	Junior, Computer Science, Georgia Institute of Technology Designing Cognitive Impairment Screening Instruments, Spring 2011
Saa S. Camanor (Architecture)	Senior, Architecture, Georgia Institute of Technology Modeling and Visualization of Onsite Health Centers, Spring 2010
Stacy Krieg (Architecture)	Senior, Architecture, Georgia Institute of Technology Designing Digital Portfolio and Presentations, Fall 2010
Shiva Talebi (Architecture)	Senior, Architecture, Georgia Institute of Technology Visualization and Field Study of Onsite Health Center, Fall 2010
Elisabeth Robertson (Architecture)	Senior, Architecture, Georgia Institute of Technology Design Practicum, Interior Design and Material, Fall 2009
Cindy Caranto (Architecture)	Senior, Architecture, Georgia Institute of Technology Analyzing Architecture in Europe, Summer 2009
Robert Daniel Jones (Architecture)	Senior, Architecture, Georgia Institute of Technology Green Construction and Sustainability, Fall 2008
Lena Klein (Architecture)	Senior, Architecture, Georgia Institute of Technology The Organic Revolution, biomimcry in architecture, Summer 2008

Drew Bregel (pre-engineering)	Junior, Pre-Engineering, University of Washington Energy Cube, an ambient display for energy awareness, and heuristic evaluation, Fall 2003
Benjamin Hindman	(Freshman, Pre-Engineering) University of Washington Implementation of web based diagram editor for on-line questionnaire survey with XML, Spring and Summer 2003
Osbert Feng (CS)	(Computer Science, UC Berkeley) Implementation of Scythe and Sew: creating meaningful patterns in simulation data, Spring and Summer 2002
Bonnie Tai (CS)	(Computer Science, UC Berkeley) Implementation of Light-Sketch, a freehand sketch interface to lighting simulation, Winter and Spring 2002.
Brian Porter	(General Interdisciplinary Studies) University of Washington Computer software development and intelligent building project Transformation of GIS cell into VRML 3D models, Spring and Summer 2001.
James Giesen	(Chemistry + Carlson Leadership Program) Independent Fieldwork Web, mass media, public relations and promotions: business aspects of a popular alternative music radio station, The End, KNDD, 107.7 FM, Winter, and Spring 2000
Carter Barnes	(General Interdisciplinary Studies) University of Washington Independent Design Project Design with Digital Media and Digital Design Studio, Spring 2000
Nien-Tze Chen (Arch)	University of Washington Independent Studies and Projects Information Visualization Design, Graphics Representation, Spring & Summer 2000

EDITOR AND CHAIR ON ADVISORY BOARDS, PROFESSIONAL SOCIETIES

2011-current	Editor, International Journal of Automation and Smart Technology (AUSMT), http://www.ausmt.org
2011	Conference Chair for SBIM 2011 – Sketch Based Interactions and Modeling Symposium, Eurographics and ACM sponsored, to be held pre-SIGGRAPH, and jointly with NPAR – Symposium on None Photorealistic Animation and Rendering and CAE – International Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging, to be held in Aug 5-7, 2011, in Vancouver, BC, Canada, http://www.cl.cam.ac.uk/conference/cae-sbim-npar-2011/SBIM/Home
	Steering Committee, TEI - Tangible, Embedded, Embodied Interaction, http://www.tei-conf.org/
	Program Co-Chair, ACM TEI 11 – Tangible, Embedded, Embodied Interaction, http://www.tei-conf.org/11/
	Organizing Committee, Graduate Student Consortium Chair, ACM Creativity and Cognition Conference 2011, Atlanta
	Associate Chair and Reviewer, Interact 2011 – 13th IFIP TCI3 Conference on Human Computer Interaction - http://interact2011.org/
	Program Committee, IDC – Interaction Design and Children Conference 2011 - http://www.idc2011.net/
	Program Committee, International Workshop on Materializing Collaboration Via Tangible User Interfaces, (MCtui 2011), http://cts2011.cisedu.info/2-conference/workshops/workshop-13--mctui
2010	Program Co-Chair, ACM Eurographics SBIM Symposium, Sketch-Based Interfaces and Modeling http://graphics.cs.williams.edu/sbim-npar10/index.html

Demo Co-Chair, ACM DIS http://www.dis2010.org/ Arhus, Denmark

Advisory Board, Fourth International Conference on Design Computing and Cognition – DCC 10, Stuttgart, Germany http://mason.gmu.edu/~jgero/conferences/dcc10/

Editor, AIEDAM - Artificial Intelligence in Engineering Design, Analysis, and Manufacturing, Special Issue on Design Computing and Cognition, (Vol.24, No.1, Feb 2010) Cambridge University Press, DCC issue, 15 submissions, 75 reviewers (with Ashok Goel) http://web.cs.wpi.edu/~aiedam/SpecialIssues/DCC08.html

2009 Editorial Board, Journal of Artificial Intelligence for Engineering Design, Analysis, and Manufacturing (AIEDAM), Cambridge University Press http://journals.cambridge.org/action/displayJournal?jid=AIE

Editor, AIEDAM - Artificial Intelligence in Engineering Design, Analysis, and Manufacturing, Special Issue on Tangible Interaction for Design, (Vol.23, No.3, September 2009) Cambridge University Press, 7 article from 17 submissions, 100 reviewers, (each article received at least three reviews, and nine articles received five or more reviews, with Mark Gross) http://web.cs.wpi.edu/~aiedam/SpecialIssues/Do-Gross.html

ACM Creativity and Cognition 2009, Treasurer, Organizing Committee
http://www.creativityandcognition09.org/organizingcommittee.htm

AAAI Workshop on Visual Representations and Reasoning
http://dilab.gatech.edu/AAAI-10-VRR-Workshop/

SimAUD program committee: Symposium on Simulation for Architecture and Urban Design, http://www.simaud.org/organizers.php, http://www.simaud.org/

CHI Senior-Friendly Technologies workshop Workshop co-chair:
http://www.ece.nus.edu.sg/stfpage/eledbl/chi2010/organizers.html
at CHI 2010 (http://chi2010.org/authors/cfp-workshop-participants.html)

2008 Editorial Board, Journal of Artificial Intelligence for Engineering Design, Analysis, and Manufacturing (AIEDAM), Cambridge University Press http://journals.cambridge.org/action/displayJournal?jid=AIE

Advisory Board, NSF Science of Learning Center

Scientific Committee, Eurographics SBIM, Sketch Based Interface and Modeling, 2008

Advisory Board, Third International Conference on Design Computing and Cognition - DCC'08, Atlanta

Editorial Board, International Journal of Architectural Computing, Chief Editor, Andre Brown, MultiScience Publishing, UK http://www.multi-science.co.uk/gen_authors.htm

2007 Advisory Board, Workshop - Spatial Cognition in Architectural Design Anticipating User Behavior, Layout Legibility, and Route Instructions in the Planning Process in conjunction with international Conference on Spatial Information Theory (COSIT'07) Melbourne, Australia

Advisory Board, Developing Graduate level Interdisciplinary Curriculum for Creating Safe and Effective Health Care Environments, Robert Wood Johnson Foundation grant to Emory University School of Nursing and Georgia Tech College of Architecture (Robert Wood Johnson Foundation grant)

Editorial Board, International Journal of Architectural Computing, Chief Editor, Andre Brown, MultiScience Publishing, UK http://www.multi-science.co.uk/gen_authors.htm

2006 Scientific Committee, Eurographics SBIM, Sketch Based Interface and Modeling, September 2006, Vienna, Austria, http://www.eg.org/sbm

Advisory Board, Second International Conference on Design Computing and Cognition - DCC'06, Eindhoven, Netherlands http://www.arch.usyd.edu.au/kcdc/conferences/dcc06

Editorial Board, International Journal of Architectural Computing, Chief Editor, Andre Brown MultiScience Publishing, UK http://www.multi-science.co.uk/gen_authors.htm

2005 Editor, AIEDAM - Artificial Intelligence in Engineering Design, Analysis, and Manufacturing, Special Issue on Understanding Representing, Reasoning about Style, (Vol.20, No.3, September 2006) Cambridge University Press (Co-Editor Claudia Eckert) http://www.cs.wpi.edu/~aiedam/SpecialIssues/Eckert-Do.html

Editorial Board, International Journal of Architectural Computing, Chief Editor, Andre Brown, MultiScience Publishing, UK http://www.multi-science.co.uk/gen_authors.htm

2004 Editorial Board, International Journal of Architectural Computing, Chief Editor, Andre Brown. MultiScience Publishing, UK. http://www.multi-science.co.uk/gen_authors.htm

Advisory Board, DCC 2004, First International Conference on Design Computing and Cognition, MIT, Cambridge, http://www.arch.usyd.edu.au/kcdc/conferences/dcc04/

Advisory Board, G-CAD 2004, Generative CAD Systems Symposium, hosted by School of Architecture, CMU http://www.cmu.edu/architecture/graduate/G-CAD/

2003 Reviewer, EIA9: E-Activities and Intelligent Support in Design and the Built Environment, 9th EuropIA International Conference, Istanbul, Turkey, http://europia.org/eia9

Editorial Board, International Journal of Architectural Computing, Chief Editor, Andre Brown, MultiScience Publishing, UK http://www.multi-science.co.uk/gen_authors.htm

Coordinating Editor, Issue #2, International Journal of Architectural Computing, MultiScience Publishing, UK http://www.multi-science.co.uk/gen_authors.htm (Co-editor with Nancy yen-wen Cheng).

2002 Advisor, Berkeley Institute of Design (BID), sponsored by CITRIS (Center for Information Technology Research in the Interest of Society) http://www.citris.berkeley.edu/, University of California, Berkeley.

Editorial Board, International Journal of Architectural Computing, Chief Editor, Andre Brown, MultiScience Publishing, UK http://www.multi-science.co.uk/gen_authors.htm

2000 Advisory Board, INTERACT 2001, Eighth IFIP (International Federation for Information Processing) TC.13 International Conference on Human Computer Interactions, Human Interface Society and Information Processing Society of Japan, http://www.interact2001.org/

1999 - 2003 Executive Board, Space.City, Seattle's Art and Architecture Forum, a non-profit organization, 501-c (3), Executive Board, organize lecture events. http://www.space-city.net/

1999 – 2001 Award Officer for ACADIA (Association of Computer Aided Design in Architecture)

1998 Technology, Arts and Media Program Planning Committee, University of Colorado at Boulder, defined degree program, certificate program, under University's Total Learning Initiative

Information Technology Strategy Planning Committee, University of Colorado at Boulder

1997 - 1999 Steering Committee for Association for Computer Aided Design in Architecture (ACADIA)

REFEREE

2011 Reviewer, Student Research Competition, CHI 2011, Conference on Human Factors in Computing Systems, http://www.chi2011.org

Reviewer, Graduate Student Consortium, TEI – Tangible, Embedded and Embodied Interaction – http://www.tei-conf.org/11/

Reviewer, Grant proposals for National Science Foundation, for REESE – research and Evaluation on Education in Science and Engineering, http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13667

Reviewer, CEABM - 2011 International Conference on Civil Engineering, Architecture and Building Materials (CEABM 2011) (http://www.ceabm.org)

Reviewer, CAAD Futures 2011 - http://2011.caadfutures.org/ (4-8, July, 2011) Liege, Belgium

2010 Reviewer, for Association of Collegiate Schools of Architecture, ACSA conference, Hybridized Practice

Reviewer, CHI 2010, Conference on Human Factors in Computing Systems http://www.chi2010.org

Judge, Student Design Competition, CHI 2010, Conference on Human Factors in Computing Systems http://www.chi2010.org

Reviewer, AAAI Conference on Artificial Intelligence (AAAI-10) Workshop on Visual Representation and Reasoning http://dilab.gatech.edu/AAAI-10-VRR-Workshop/

Reviewer, Ubiquitous Computing 2010 http://ubicomp2010.org/

Reviewer, Journal of Interacting with Computers (IWC) http://ees.elsevier.com/iwc/

Reviewer, Tangible and Embedded Interaction (TEI'10), Media Lab. http://tei-conf.org/10/

Reviewer, ASME, IDETC/CIE 2010, International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, http://www.asmeconferences.org/idetc2010/

Reviewer, Journal of Artificial Intelligence for Engineering Design, Analysis and Manufacturing, AIEDAM, Cambridge University Press http://journals.cambridge.org/aie

Reviewer, Grant Proposal Evaluation, for Austrian Science Fund (FWF) http://www.fwf.ac.gt

Panel Reviewer, NSF IIS-CreativeIT (Information & Intelligent Systems - Human-Centered Computing)

Reviewer, The 3rd IEEE International Conference on Digital Game and Intelligent Toy Enhanced Learning DIGITEL 2010, http://digitel2010.cl.ncu.edu.tw/

Reviewer, IEEE Tabletops and Interactive Surfaces 2008, October 1-3, Amsterdam, the Netherlands, http://www.ieeetabletop.org/

Reviewer, DCC – Fourth International Conference on Design Computing and Cognition, 12-14 July, Stuttgart, Germany, http://mason.gmu.edu/~jgero/conferences/dcc10/

Reviewer, AAAI 2010 Spring Symposium, Cognitive Shape Processing http://www.spatial-cognition.de/CSP/

Reviewer: International Journal of Design (IJDesign) – full journal paper review (full paper 14 pages) http://www.ijdesign.org/

Reviewer: Computers & Graphics –http://www.elsevier.com/locate/cag

Reviewer, Journal of Design Studies, Elsevier, Editor-in-Chief, Nigel Cross, http://www.elsevier.com/locate/destud

2009 Reviewer, CHI 2009, Conference on Human Factors in Computing Systems, http://www.chi2009.org

Reviewer, eCAADe (education and research in computer aided architectural design in Europe

Reviewer, CAADRIA, 14th Computer Aided Architectural Design Research In Asia conference

Reviewer, Workshop on Sketch-Based Interfaces and Modeling, Aug 1-2, New Orleans, http://sbim09.cse.wustl.edu/pages/callForPapers.php

Reviewer, Tangible and Embedded Interaction (TEI'09) Cambridge, UK http://tei-conf.org/

Reviewer, Journal of Design Studies, Editor in Chief Nigel Cross, Elsevier

Reviewer, International Journal of Design, Editor-in-Chief Lin-Lin Chen

Reviewer, AAAI Spring Symposium on "Cognitive Shape Processing" March 22-24, 2010 at Stanford University, California http://www.spatial-cognition.de/CSP/

Reviewer, Journal of Artificial Intelligence for Engineering Design, Analysis and Manufacturing, AIEDAM, Cambridge University Press http://journals.cambridge.org/aie

Reviewer, CAAD Futures 2009, Montreal 6/17-19
http://www.arclab.umontreal.ca/CAADFutures09/CAAD_futures_2009_home.php

Reviewer, IEA/AIE –International Conference on Industrial Engineering and other Applications of Applied Intelligent Systems http://web.nutn.edu.tw/IEA-AIE2009/

Reviewer, SIGGRAPH 2009, http://www.siggraph.org/s2009/

Reviewer, Austrian Science Fund http://www.fwf.ac.gt

Reviewer, Georgia National Science Foundation http://www.gnsf.ge

2008 Reviewer, Journal of Computers & Graphics, Elsevier

Reviewer, CHI 2008, Conference on Human Factors in Computing Systems http://www.chi2008.org

Reviewer, eCAADe (education and research in computer aided architectural design in Europe), Sep 17-20, The College of Design Sciences, University College of Antwerpen http://www.ecaade08.be/welcome.html

Reviewer, CAADRIA, 13th Computer Aided Architectural Design Research In Asia conference: Chiang Mai, Thailand, 9-12 April, http://www.caadria2008.org/

Reviewer, Office of Research, National University of Singapore, http://www.nus.edu.sg

NSF Site Visit for Science of Learning Center program review

Reviewer, IADIS IHCI 2008, IADIS International Conference Interfaces and Human Computer Interaction 2008, Amsterdam, the Netherlands, July 25-27 http://www.ihci-conf.org/

Reviewer, Fifth Eurographics Eurographics Workshop on Sketch-Based Interfaces and Modeling, Annecy, France, June 11-13, http://www.dgp.toronto.edu/%7Ekaran/sbim/ SRM_SBIM08

Reviewer, The 7th International Conference on Interaction Design & Children, June 11-13, Chicago, http://idc08.northwestern.edu/

Reviewer, DCC 08, THIRD INTERNATIONAL CONFERENCE ON DESIGN COMPUTING AND COGNITION (DCC'08 or DCC08), June 23-25, Georgia Institute of Technology, Atlanta, http://mason.gmu.edu/~jgero/conferences/dcc08/

Reviewer, Tangible and Embedded Interaction (TEI'08), Feb 18-20, Bonn, Germany http://tei-conf.org/

Reviewer, IEEE Tabletops and Interactive Surfaces 2008, October 1-3, Amsterdam, the Netherlands, http://www.ieeetabletop.org/

Reviewer, Discovery Grant Program Name RGPI, NSERC Natural Sciences and Engineering Research Council of Canada, http://www.nserc-crsng.gc.ca/

Reviewer, MOE IDM Programme, Educational Technology Division, Ministry of Education, Singapore, http://www.moe.gov.sg

Reviewer, Interactive Digital Media R&D Office Media Development Authority of Singapore, http://www.nrf.gov.sg

2007 Reviewer, CHI 2007, Conference on Human Factors in Computing Systems http://www.chi2007.org

Panel Reviewer, NSF, CISE and HER, ALT (Advanced Learning Technologies)

Panel Reviewer, NSF, IIS-HCC (Information & Intelligent Systems - Human-Centered Computing)

Reviewer, Design Studies, Elsevier, http://www.elsevier.com/locate/destud

Reviewer, TOCHI, ACM Transactions of Computer-Human Interaction, http://www.acm.org/tochi/

Reviewer, Journal of Engineering Design, Taylor and Francis, http://www.tandf.co.uk/journals/titles/09544828.asp

Reviewer, JEE- Journal of Engineering Education, American Society for Engineering Education http://www.asee.org/publications/jee/

Reviewer, CAAD Futures, 12th International Conference on Computer-Aided Architecture Design, July 11-13, Sydney, Australia, http://ww.arch.usyd.edu.au/kcdc/conferences/cf07

Reviewer, RED, Journal, Research in Engineering Design, Theory, Applications, and Concurrent Engineering, Springer Publication, http://www.cs.cmu.edu/~sfinger/red/red.html

Reviewer, eCAADe, Sep 26-29, Frankfurt, Germany, http://www.fab.fh-wiesbaden.de/index.php?id=120

Reviewer, CAADRIA, 12th CAADRIA conference: "Digitization and Globalization" in Nanjing, China, 19-22 April
http://www.caadria2007.org/

Reviewer, Tangible Play: Research and Design for Tangible and Tabletop Games, Workshop at the 2007 IUI - Intelligent User Interfaces Conference

Reviewer, SigGradi - Iberoamerican Society of Graphic Design, Oct 23-25, Mexico, http://www.sigradimexico.org

Reviewer, IJHCI, International Journal of Human-Computer Interaction, Lawrence Erlbaum Associates http://www.erlbaum.com/

2006 Reviewer, eCAADe, Education and Research in Computer Aided Architectural Design in Europe, in Volos, Greece, September 6-9, http://www.arch.uth.gr/ecaade06/

Reviewer, CSAAR, The Center for the Study of Architecture in the Arab Region, http://www.csaar-center.org/conference/2006/index.htm

Reviewer, DCC 06, Design Computing and Cognition, July 10-12, Technical University of Eindhoven, Netherlands http://www.arch.usyd.edu.au/kcdc/conferences/dcc06/

Reviewer, CAADRIA 2006, Computer Aided Architectural Design Research in Asia, March 31 – April 2, in Kumamoto, Japan, http://www.caadria2006.org

Reviewer, JEE- Journal of Engineering Education, American Society for Engineering Education http://www.asee.org/publications/jee/

Reviewer, Journal of Open House International, http://www.openhouse-int.com

Reviewer, ICMI, International Conference of Multi-Modal Interactions, http://www.acm.org/icmi/2006/

Reviewer, RED, Journal, Research in Engineering Design, Theory, Applications, and Concurrent Engineering, Springer Publication, http://www.cs.cmu.edu/~sfinger/red/red.html

Reviewer, WIPTE 2006, First Workshop on the Impact of Pen-based Technology on Education, http://www.itap.purdue.edu/tlt/conference/wipte/

Reviewer, CHI 2006, Conference on Human Factors in Computing Systems http://www.chi2006.org

Reviewer, IJAC, International Journal of Architectural Computing http://www.architecturalcomputing.org

2005 Reviewer, 2nd Eurographics Workshop on Sketch-Based Interfaces and Modeling, Trinity College Dublin, Ireland, August 28-29, http://www.eg.org/sbm

Reviewer, Interaction Design and Children, June 8-10, University of Colorado at Boulder, Boulder, Colorado http://www.cs.colorado.edu/conferences/idc2005/

Reviewer, The First Conference of the Future of the AEC Industry - Engaging the New Generation of Doctoral Students in U.S. Universities to be held in Georgia Institute of Technology, Atlanta, Georgia http://www.thebfc.com/DoctoralProgram/Committees.htm

Reviewer, CAADRIA 2005, Computer Aided Architectural Design Research in Asia, New Delhi, India http://www.caadria2005.org

2004 Reviewer, CAAD Futures 2005, to be held in Vienna University of Technology, Austria http://info.tuwien.ac.at/cf2005/

Reviewer, ASCAAD, Arab Society for Computer Aided Architectural Design, First International Conference on Computer Aided Architectural Design, 22-24 February 2005 - King Fahad University of Petroleum & Minerals, Dhahran, Saudi Arabia, http://www.ascaad.org/conference/2004/

Reviewer, International Journal of Architectural Computing http://www.architecturalcomputing.org

Reviewer, ITCon, Electronic Journal of Information Technology in Construction http://www.itcon.org/

Reviewer, CAADRIA 2004, Computer Aided Architectural Design Research in Asia, Yonsei University, South Korea, http://www.caadria2004.org/

Reviewer, DCC 2004, First International Conference on Design Computing and Cognition, MIT, Cambridge, http://www.arch.usyd.edu.au/kcdc/conferences/dcc04/

Reviewer, G-CAD 2004, Generative CAD Systems Symposium, hosted by School of Architecture, CMU http://www.cmu.edu/architecture/graduate/G-CAD/

2003 Reviewer, EIA9: E-Activities and Intelligent Support in Design and the Built Environment, 9th EuropIA International Conference, Istanbul, Turkey, http://europia.org/eia9

Reviewer, Eurographics 2003, European Association for Computer Graphics, Granada, Spain, http://giig.ugr.es/eg03/eg2003.html

Reviewer, Architectural Press, Commissioning Editor, Alison Yates, Elsevier Limited, Oxford, UK, http://www.architecturalpress.com

Reviewer, Journal AIEDAM (Artificial Intelligence for Engineering Design, Analysis, and Manufacturing), Cambridge University Press http://www.cs.wpi.edu/~aiedam/

Reviewer, INTERACT 2003, 9th IFIP TC13 International Conference of Human-Computer Interaction, ETH Zurich, http://www.interact2003.org/

2002 Panel Reviewer, NSF, Engineering division, DMII (Design, Manufacture, and Industrial Innovation)

Reviewer, CAAD Futures 2003, Computer Aided Architectural Design Futures Foundation http://www.caadfutures.arch.tue.nl/

Panel Reviewer, NSF, DUE (Division of Undergraduate Education), Curriculum and Laboratory Improvement - Educational Materials Development (CCLI-EMD)

Reviewer, UIST 2002, User Interface and Software Technology, ACM (Association of Computing Machinery) http://www.acm.org/uist/uist2002/

Reviewer, ACADIA 2002, Association of Computer Aided Design in Architecture

2001 Reviewer, Journal AIEDAM (Artificial Intelligence for Engineering Design, Analysis, and Manufacturing), Cambridge University Press http://www.cs.wpi.edu/~aiedam/

Reviewer, IJHCS, International Journal of Human Computer Studies, Academic Press

Reviewer, INTERACT 2001, Human Interface Society and Information Processing Society of Japan

Reviewer, ACADIA 2001, Association of Computer Aided Design in Architecture

2000 Reviewer, Diagrams 2000, An International Conference on the Theory and Application of Diagrams (Chairs, Michael Anderson, Peter Cheng, Volker Haarslev, Lecture Notes in Artificial Intelligence, Springer)

Reviewer, ACADIA 2000, Association of Computer Aided Design in Architecture, held at Catholic University, Washington, D.C. USA

Reviewer, CAADRIA 2000, Computer Aided Architectural Design Research in Asia

Reviewer, Digital Media Session, for ACSA (American Collegiate Schools of Architecture) Annual Conference 2000

1998 Reviewer, ACADIA conference, Association of Computer Aided Design in Architecture, held at University of Laval, in Qubec City, Canada

1996 Reviewer, Editorial Committee for Hong Kong Papers in Design and Development #33

ACTIVITIES, SERVICE TO THE PROFESSIONCOMMUNITY, AND PUBLIC

2010 - 2012 Enabling Technology Open House, Co-Host, Happy Healthy Home – Ambient Intelligence and Innovations, Georgia Tech, April 27, 2010, April 22, 2011, April 17, 2012, http://www.healatgt.org/

2009 Onsite Health Center of the Future, VIP Open House, 12/3, co-host Comprehensive Health Services

Healthy Environment and Active Lifestyle Open House, 4/21, co-host with Aware Home Research Institute, Wireless RERC, Georgia Tech http://www.healatgt.org/ http://www.coop.gatech.edu/news/event.php?id=4199

2008 Co-Host, Hill-Rom IT Solutions, Mike Gallup, Kristy.Decicco, 4/15

Host, Joyce Bromberg, Director of Research, Workspace Futures, Steelcase 2/8

Co-Host, Ed Ponataski, Senior Partner with Martin-Blanck and Associates, Senior Facilities Consultant Presidential Task Force to Improve Veterans Health Care, and Clay Boenecke, Chief of the Capital Planning Branch for the TRICARE Management Activity, Military Health Systems, 1/15

2007 Co-Host, Sara Marberry, Natali Zensius, Center of Health Design 4/18

2006 Advisory Board, “Digital Sketching in the Design Studio” Educational Technology Curricular and Infrastructure Redesign Grant, University of Oregon, PI: Nancy Yen-wen Cheng

Host, Physical Computing Workshop, Dec 10-12. Ali Mazalek and Synlab, Mark D Gross and CoDe Lab. http://dcom.arch.gatech.edu/wiki/ index.php?title=Workshop

2003 Participant, “Development of an Architectural Co-Design Space’ Virtual Reality Environment” [July 11, 2003 – November 30, 2004], PIs: Kwangyon Wohn, Virtual Reality Research Center, KAIST, Korea, Jin Won Choi, Yonseil University, Korea.

Participant, “Collaborative Product Conceptualisation Environment” [proposal submitted August 2003), Pis: Been-Lirn Duh, Nanyang Technological University, Singapore (NTU), and Singapore Institute of Manufacturing Technology (SIM Tech).

Host, Karrie Karahalios visit, August 27, Social Media Group, MIT Meidia Lab.

Host, Rahul Sukthankar visit, August 21, Intel Research Pittsburgh and CMU School of Computer Science

Host, Eugene Earlie visit, April 16, Research Engineer, Intel's Strategic Cad Lab in Shrewsbury, Massachussetts.

Host, Andre diSessa, Walker-Ames lecturer visit, Design Machine Group demo, February 19

2002 Co-host, Eric Owen Moss lecture, "Architecture is a Prayer for Order," at Seattle Art Museum, October 14, for Space.City

2001 Presenter, Design Machine Group, “Recent Work”, at Seattle Art Museum, November 5, co-sponsored by Space.City: Seattle’s Art and Architecture Forum

Host, Greg Lynn lecture, “On the Surface”, November 6, at Benaroya Hall, Seattle, co-sponsored by Space.City and University of Washington.

Co-host, John Stamets lecture, “Museums as Build”, November 12, at Seattle Art Museum, for Space.City.

Co-host, Shigeru Ban lecture, “Beyond Paper and Curtain: Works and Humanitarian Activities”, December 6, Benaroya Hall, for Space.City.

Co-host, Khaldoun Fansa, consulting architect, expert in the Old City of Aleppo and Restoration projects Management

Host, National AEC Information Technology and Information Systems Professionals Roundtable, for Design Machine Group, Dept. of Architecture, University of Washington

2000 City of Seattle, King County, and Sound Transit Joint Agency Northgate Technical Workshop

Central City Design Forum, CityDesign, DCLU, City of Seattle

Co-host, Bill Zahner lecture, “The Gehry Metals”, at Seattle Art Museum, April 18, for Space.City

Co-host, Jesse Reiser lecture, “Recent Work” at the Henry Art Gallery, February 29, 2000, for Space.City.

Co-host, Daniel Libeskind lecture, “Jewish Museum and Recent Work” at Benaroya Hall, February 18, 2000, Space.City

Co-host, A Town Hall Meeting, panel discussion at the Seattle Public Library, with Mayor Paul Schell, John Rahaim, Peter Miller, Gordon Walker, January 20, 2000, Space.City.

2000 - 2002 Lakeview North Condominiums, Home Owner Association, elected Officer

1999 - 2002 Design Computing Research Lab Lunch Colloquium coordinator
(list of talks at http://depts.washington.edu/lablunch)

1992 - 1994 President, Georgia Tech Graduate Student Resident Hall Council: Fitten Hall President

Newsletter bilingual editor & Graduate representative, Georgia Tech Chinese Student Association

1990 - 1992 Boston Society of Architects: Affiliate member

Ashdown Institute (Chinese Intercollegiate Architects Association): Secretary, organize lecture events, applied for non-profit organization

Harvard Republic of China Student Club: Secretary, publication, and lecturer for evening lecture series

Harvard University Taiwan Study Club: member

Cambridge Chinese Chorus Society (CCCS): founder, president (of one term), soloist, chorus member, poster and graphic designer

1988 - 1989 Research Assistant Association, National Taiwan University, Graduate Institute of Building and Planning (labor union), Co-founder, member, and President for one term

1983 - 1988 National Cheng Kung University

Department of Architecture: Vice leader of class, chorus section leader, photographer of the Graduate Year Book Committee, chief editor of N. C. K. U. Architecture, secretary of Students Association

Young Women Association: member
Orchestra Club and Art Club: member
Modern Drama Club: vice leader, managing & directing
Youth Visiting Mission Corps: member

COMMITTEE SERVICE (UNIVERSITY)

2006 - present Information Technology Committee, Diversity Committee, Search Committee for City and Regional Planning (2006), College of Architecture, Advisor, for Asian Student Organization, South East Student Engineers, Georgia Institute of Technology

2004 - 2005 Graduate Program Committee, Computing Committee, Carnegie Mellon University, School of Architecture

2004 Curriculum Committee, Task Force for Accreditation Review (TFAR), Department of Architecture

2004 - 2003 Faculty Senate, representing Faculty Group 2, Voting Unit #V16, University of Washington

2004 - 2003 Honors Council, University Honors Program, University of Washington

2004 - 2002 Program Advisor, Master of Science, in Design Computing, Architecture Department Committee

2003 Strategic Planning Committee, Department of Architecture

Graduate School Representative (GSR), doctoral supervisory committee, for Eric Wiltshire, Music (exam, December 2003), University Committee

2002 Architecture Department Chair recommendation committee, College Committee

Graduate School Representative (GSR), doctoral supervisory committee, for Diana Mae Greenlee, Anthropology (defense, May 10, 2002), University Committee

Graduate School Representative (GSR), doctoral supervisory committee, for Toshie Ueda, Music (exam, May 29, 2002). University Committee

2001 - 2002 TPMR (Tenure, Promotion, Merit Review) Committee, Architecture Department

Steering Committee, for “Design Education of the Future” - implementing Architecture Hall information infrastructure, from Tools for Transformation grant, Architecture Department

Planning Committee, College wide Ph.D., for Design Computing, Digital Processes and Practices

College Computing Committee

2001 Financial Aid and Scholarship Committee, Department of Architecture

2000 Graduate School Representative (GSR), doctoral supervisory committee, for Raydell Bradley, School of Music (graduated May 2000).

1999 - 2002 Information Technology group, Professional Council Advisory for Architecture Department

Department Computing Committee, Architecture Department, University of Washington

Thesis Proposal Review Committee, Architecture Department, University of Washington

Speakers Bureau, UW outreach to provide the citizens of Washington State with outstanding programs in teaching, research, and service to promote community access to the broad range of information and knowledge available at the University

1999 - 2001 Graduate Admission Committee, Architecture Department, University of Washington

1993 Faculty Search Committee, College of Architecture, Industrial Design, Georgia Institute of Technology

PROFESSIONAL ORGANIZATIONS

ACM	Association for Computing Machinery
SIGCHI	ACM Special Interest Group in Human Computer Interaction
SIGART	ACM Special Interest Group in Artificial Intelligence
IEEE	Institute of Electrical and Electronics Engineers

Mark D. Gross **May 2017**

http://atlas.colorado.edu/mdgross

EDUCATION

Massachusetts Institute of Technology Ph.D. Design Theory & Methods 1986
Dissertation title: ***Design as Exploring Constraints***; committee: NJ Habraken, A Fleisher, S Papert

Massachusetts Institute of Technology B.S., Architectural Design, 1978

PROFESSIONAL EXPERIENCE

2014 – present	**University of Colorado, Boulder** Professor, Computer Science and Director, ATLAS Institute
2004 – 2013	**Carnegie Mellon University** Professor, Computational Design, Associate Head & Director of Graduate Programs, School of Architecture 2008-2012 Affiliate faculty Human Computer Interaction Institute
2008 – present	**Modular Robotics Incorporated** co-founder; Research and Education Director
2013 – present	**Blank Slate Systems** co-founder; Research and Outreach Director
2012	**National University of Singapore**, CUTE Center, visiting professor (1 month)
1999 - 2004	**University of Washington, Seattle** Professor (from Sept 2002), Department of Architecture
1990 - 1999	**University of Colorado, Boulder and Denver** Associate (1997-1999) and Assistant (1990-1997) Professor, College of Architecture and Planning, Department of Planning and Design
1998	**Nara Advanced Institute of Science and Technology, Nara, Japan** Visiting Research Scholar, Cognitive Science Lab, Information Systems Division
1988 - 1990	**Design Technology Research, Cambridge, MA and Tokyo** Principal Investigator
1981 - 1988	**Massachusetts Institute of Technology** Lecturer & Postdoctoral Research Associate, School of Architecture and Planning
1982-1984	**Atari Cambridge Research Laboratory, Cambridge, Massachusetts** Research Staff, Computers and Education
1981	**Logo Computer Systems Inc, Boston, MA** Programming Language Design, Computer Animation
1980 - 1981	**Technical University of Eindhoven (SAR)** Visiting Researcher
1978 - 1980	**MIT Artificial Intelligence Laboratory** System Programmer, Logo Project
1976 - 1978	**The Architecture Machine Group, MIT** Undergraduate Research Assistant

JOURNAL ARTICLES

2013 **Beyond Top Down: Designing with Cubelets,** Gross MD, Veitch C, *Journal of Technology, Society and Knowledge (Revista Tecnologias, Sociedade e Conhecimento)*, 1(1): November, 150-164.

2013 **A theoretical framework of design critiquing in architecture studios**, Oh, Y, Ishizaki, S, Gross, MD and Do, E-Y. *Design Studies* **34**(3): 302-325

2011 **Experiments in Design Synthesis when Behavior is Determined by Shape**, Schweikardt, E and Gross,

MD *J Personal and Ubiquitous Computing, special issue on Material Computing,* 15(2): 123-132

Hyperform Specification: designing and interacting with self-reconfiguring materials, Weller, M, Gross, MD, and Goldstein SC *J Personal and Ubiquitous Computing, special issue on Material Computing* 15(2): 133-149

2010 **A Constraint-Based Furniture Design Critic**, Yeonjoo Oh, Mark D Gross, Suguru Ishizaki, Ellen Yi-Luen Do, *Research and Practice in Technology-Enhanced Learning* **5**(2):97-122

2009 **Computational Support for Sketching in Design: A Review**, Johnson, G., Gross, M.D., Hong, J. and Do, E. Y-L. *Foundations and Trends in Human-Computer Interaction,* 2(1): 1-93

Educating the New Makers: Cross-disciplinary creativity, M.D. Gross, and Do, E Y-L. *Leonardo* **42**(3) (June 2009).

ArchiDNA: An Interactive System for Creating 2D and 3D Conceptual Drawings in Architectural Design, Kwon, Doo Young, M.D. Gross, and Do, E Y-L. *J. Computer Aided Design* 41(3):159-172 (March 2009)

2006 **FlexM: Designing a Physical Construction Kit for 3D Modeling**, Markus Eng, Ken Camarata, Ellen Yi-Luen Do, Mark D Gross, *International Journal Architectural Computing,* **4**(2):27- 47

Energy Cube and Energy Magnets, Ken Camarata, Ellen Yi-Luen Do, Mark D Gross, *International Journal Architectural Computing*, Volume 4, Number 2, pp 49- 66

2004 **Let there be light**, E. Y-L Do and M. Gross, *International Journal Architectural Computing,* Volume 2, Number 2, 1 June 2004 pp 211: 227

2003 **A Physical Computing Studio: Exploring Computational Artifacts and Environments**, K Camarata, M Gross, E Y-L Do *International Journal Architectural Computing* **1**(2):169-190.

Design of Software and Software for Design, M. Gross and Y. Yamamoto, *Journal of the Human Interface Society* (in Japanese)

2001 **Thinking with Diagrams in Architectural Design**, Do, E. Y-L and M.D. Gross, in *Artificial Intelligence Review* **15**:135-149.

2000 **Drawing on the Back of an Envelope: a framework for interacting with application programs by freehand drawing,** M.D. Gross and E. Do. in *Computers and Graphics Journal* **24**(2000):835-849.

Intentions in and Relations among Design Drawings, Do, E. Y-L, Gross, M.D., Neiman, B., Zimring, C., *Design Studies*, 21 (5):483-503.

Digital Clay: Deriving Digital Models from Freehand Sketches. Schweikardt, E., and Gross, M.D., *J. Automation in Construction* 9:107-115. (first appeared in Proceedings of ACADIA '98 National Conference, Quebec)

1999 **From Critiquing to Representational Talkback: Computer Support for Revealing Features in Design**, Nakakoji K, Yamamoto, Y., Suzuki, S., Takada, S., Gross, M., *Knowledge Based Systems,* 457-468.

1998 **Collaboration and Coordination in Architectural Design: approaches to computer mediated work**, Gross, M.D., E. Do, R. McCall, W. Citrin, P. Hamill, A. Warmack, and K. Kuczun. J. *Automation in Construction* 7:465-473. (first appeared in Proceedings 1997 TeamCAD conference, Atlanta GA).

1997 **Resolving archaeological site data with 3D computer modeling: The case of Ceren,** Lewin, J. and M.D. Gross, *J. Automation in Construction,* 6(4) 323-334. (first appeared in Proceedings 1996 ACADIA National Conference, Tucson AZ).

1996 **Why can't CAD be more like Lego?** Gross, M.D., *Automation in Construction Journal,* 5:285-300.

The Electronic Cocktail Napkin - computer support for working with diagrams, Gross, M.D., *Design Studies* **17**(1), 53-70.

PDA based Graphical Interchange for Field Service and Repair Workers, Citrin, W.V., and M.D. Gross, *Computers and Graphics*, **20**(5):641-649.

1994 **Avoiding conflicts in architectural subsystem layout,** Gross, M.D., *Journal of the Concurrent Engineering Research Association* **2**:163-171.

Roles for Computing in Schools of Architecture and Planning, Gross, M.D., *Journal of Architectural Education*, **48**(1):56-64.

EML: A Modeling Environment for Exploring Landscape Dynamics, Theobald, D. and M.D. Gross. *Computers, Environment, and Urban Systems,* **18**(3):193-204

1988 **Concept Design Games**, Habraken, N.J. and M.D. Gross, *Design Studies* **9**(3):150-158.

Constraints: Knowledge Representation in Design, Gross, M.D., S. Ervin, J. Anderson, A.Fleisher, *Design Studies* **9**(3):133-143.

1987 **RoadLab - A Constraint-based Laboratory for Road Design,** Gross, M.D. and S. Ervin, *Artificial Intelligence in Engineering Journal,* **2**(4): 224-234.

1984 **A Computer Model for Design,** Gross, M.D., *Design Studies* **3**(5):142-145.

Design as the Exploration of Constraints, Gross, M. and A. Fleisher, *Design Studies* **3**(5),137-138.

Writing Form, Gross, M.D. and N.J. Habraken, *Design Studies* **3**(5).

1982 **The Turtle Tissue Project,** Gross, M.D. and N.J. Habraken. *Open House International*, **7**(2):3-12.

CONFERENCE PAPERS IN PEER-REVIEWED PROCEEDINGS

2017 **FoldMecha: Exploratory Design and Engineering of Mechanical Papercraft**. Hyunjoo Oh, Jeeeun Kim, Cory Morales, Mark Gross, Michael Eisenberg, and Sherry Hsi. 2017.. In Proceedings of the Eleventh International Conference on Tangible, Embedded, and Embodied Interaction (TEI '17). ACM, New York, NY, USA, 131-139.

2016 **Crafting Mechatronic Percussion with Everyday Materials**. Hyunjoo Oh, Jiffer Harriman, Abhishek Narula, Mark D. Gross, Michael Eisenberg, and Sherry Hsi. 2016. In Proceedings of the TEI '16: Tenth International Conference on Tangible, Embedded, and Embodied Interaction (TEI '16). ACM, New York, NY, USA, 340-348. DOI: http://dx.doi.org/10.1145/2839462.2839474

SolidNoise: Making Musical Robots Gross, Mark D, Harriman J, Bethancourt M, Theodore M, Narula A. Human Factors in Computing (Human Factors in Computing, May 07, 2016-May 12, 2016), New York: Association for Computing Machinery, May 07, 2016.2504-2510.

SolidNoise: Tools For Making Musical Robots. Gross, MD, Harriman J, Bethancourt M, Narula A, Theodore M. Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '16) (Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '16), May 07, 2016-May 12, 2016), New York, NY, USA,: Association for Computing Machinery, May 07, 2016.3683-3686.

2015 **FoldMecha: Design for Linkage-Based Paper Toys. Hyunjoo Oh, Mark D. Gross, and Michael Eisenberg.** In Proceedings of the adjunct publication of the twenty eighth International Symposium on User Interface Software and Technology Symposium (UIST '15 Adjunct). ACM, New York, NY, USA, 91-92.

Awareable Steps: Functional and Fashionable Shoes for Patients with Dementia, Hyunjoo Oh and Mark D. Gross. In Proceedings of the nineteenth International Symposium on Wearable Computers: Adjunct Program (UbiComp/ISWC'15 Adjunct). ACM, New York, NY, USA, 579-583.

Paper Mechatronics: A Material and Intellectual Shift in Education Technology. Michael Eisenberg, Hyunjoo Oh, Sherry Hsi, and Mark D. Gross. In Proceedings of the eighteenth International Conference on Interactive Collaborative Learning (ICL '15). IEEE, 936-943.

Paper Mechatronics: A Design Case Study for a Young Medium. Oh, H, Eisenberg, M, Gross, MD, and Hsi, S, Proceedings Interaction Design for Children (IDC '15), ACM, New York, NY, 371-374.

The Kitsch-Instrument: Hackable Robotic Music. Harriman, J., Theodore, M. and Gross, M.D.. In Proceedings of the Ninth International Conference on Tangible, Embedded, and Embodied Interaction (TEI '15). ACM, New York, NY, USA, 141-144.

Cube-in: A Learning Kit for Physical Computing Basics. Oh, H and Gross, MD. 2015. In Proceedings of the Ninth International Conference on Tangible, Embedded, and Embodied Interaction (TEI '15).

2013 **FAB at CHI: digital fabrication tools, design, and community**. Mellis, D, Follmer, S, Hartmann, B, Buechley, L, and. Gross, MD. In CHI '13 Extended Abstracts on Human Factors in Computing Systems (CHI EA '13). ACM, New York, NY, USA, 3307-3310.

2012 **Motivating Exercise with a Pedometer-Gift Box.** Yu, Y, Gross, MD., and Yu, D Pegi: Proceedings of APCHI2012 (10th Asia Pacific Conference on Computer Human Interaction). HCD-Net Journal (ISSN: 1882-9635).

Sketch it, make it: sketching precise drawings for laser cutting, Johnson, GG, Gross MD, Do, E Y-L, and Hong, J. Proceedings, CHI EA '12 CHI '12 Extended Abstracts on Human Factors in Computing Systems**,** 1079-1082

Giffi: a gift for future inventors.Wu, KJ, Gross, MD, and Baskinger. M. In Proceedings of the Sixth International Conference on Tangible, Embedded and Embodied Interaction (TEI '12), Stephen N. Spencer (Ed.). ACM, New York, NY, USA, 335-336

2011 **The RayMatic: a thermostat with a human face**, Yun R and Gross MD, ACM SIGCHI Proc Tangible Embedded, Embodied Interaction, (TEI) Madeira Portugal, 61-62.

Interactive Fabrication: New Interfaces for Digital Fabrication, Willis KDD, Xu C, Wu KJ, Levin G, and Gross MD, ACM SIGCHI Proc Tangible Embedded, Embodied Interaction (TEI), Madeira Portugal, 69-72.

Red Balloon, Green Balloon, Sensors in the Sky, Stacey Kuznetsov, George Noel Davis, Eric Paulos, Mark D. Gross, Jian Chiu Cheung. ACM SIGCHI Proc Ubiquitous Computing (UbiComp), Beijing China 237-246.

2010 **Interactive Paper Devices: End-user Design & Fabrication,** Saul G, Xu C, Gross, MD, Proc. ACM Tangible Embedded and Embodied Interaction (TEI), Boston, 205-212.

WearAir: Expressive T-shirts for Air Quality Sensing, Kim S, Paulos E, and Gross MD, Proc. ACM Tangible Embedded and Embodied Interaction (TEI), Boston, 295-296.

Supporting Coordination in Surgical Suites: Physical Aspects of Common Information Spaces, Scupelli, P, Xiao Y, Fussell SR, Kiesler S, Gross MD, ACM Human Factors in Computing (CHI), Atlanta GA, 1777-1786

Ubiquitous Drums, a tangible, wearable musical interface, Smus B and Gross MD, ACM Human Factors in Computing (CHI) Work In Progress, 4009-4014.

Personal, Public: Using DIY to explore citizen-led efforts in urban computing: Bisker S, Gross M, Carter D, Paulos E, Kuznetsov S; ACM Human factors in Computing (CHI) Work in Progress, 3547-3552

Topaoko: Interactive Construction Kit, Wu KJ, Gross MD, ACM Human factors in Computing (CHI) Work in Progress, 3619-3624.

WallBots: Interactive Wall-Crawling Robots In the Hands of Public Artists and Political Activists, Kuzenetsov, S., Paulos E, and Gross MD, ACM SIGCHI Designing Interactive Systems (DIS), Aarhus Denmark, 208-217.

2009 **Design of Prismatic Cube Modules for Convex Corner Traversal in 3D,** Weller MP, Kirby BT, Brown,HB, Gross MD and Goldstein SC, IEEE Intelligent Robotics and Systems (IROS) St Louis, Oct 11-13, 1490-1495.

State Machines are Child's Play: Observing children ages 9 to 11 playing Escape Machine, Weller, M., Do, E. Y-L., Gross M., ACM Interaction Design for Children (IDC), Como Italy, 282-289.

Tangible Sketching in 3D with Posey, Weller, M., Do, E. Y-L., Gross M., ACM Human Factors in Computing (CHI) Interactive Demonstrations: April 4-6. 3193-3198.

Easigami: A reconfigurable folded-sheet TUI, Huang, Y., Gross, M.D. Do, Y-L,, Eisenberg, M. ACM Tangible and Embedded Interaction (TEI), Cambridge UK, Feb 16-19. 107-112.

A Tangible Construction Kit for Exploring Graph Theory, Schweikardt, E., Elumeze, N., Eisenberg, M., Gross, M. , ACM Tangible and Embedded Interaction (TEI), Cambridge UK, Feb 16-19. 373-376.

An Optocoupled Poseable Ball and Socket Joint for Computationally Enhanced Construction Kits, Weller, M.P., E YL Do, and M. Gross. ROBOCOMM, IEEE 2nd International Conference on Robotic Communication and Coordination, Odense Denmark, March 2009.

Co-designed Paper Devices, Saul, G and Gross MD, Workshop on Material Computing and Programmable Reality, Conference on Human Factors (CHI)

Designing Systems to Design Themselves, Schweikardt, E and Gross MD, Workshop on Material Computing and Programmable Reality, Conference on Human Factors (CHI)

Hyperform Specification – designing with self-reconfiguring materials, Weller MP, Gross MD, and Goldstein SC, Workshop on Material Computing and Programmable Reality, Conference on Human Factors (CHI)

Delivery types and communication modalities in the furniture factory design critiquing system, Oh Y, Do, EY-L, Gross, MD, Ishizaki, S, Proc. Computer Aided Architectural Design Futures (CAAD Futures), Montreal, June 17-19.

2008 **Computing Spatial Qualities in Architecture**, Key, S., Do, E. Y-L., Gross, M., Proc. Association for Computer Aided Design in Architecture (ACADIA), Minneapolis, MN Oct 15-17.

Learning About Complexity with Modular Robots, Schweikardt E. and Gross, M. Proc. IEEE Digital Game and Intelligent Toy Enhanced Learning (DIGITEL), Banff, Canada November 16-19. pp.116-123

Posey: Instrumenting a Poseable Hub and Strut Construction Toy, Weller, M.P., Do, E. Y-L., and Gross, M.D. Proceedings, Tangible and Embedded Interaction 2008 (TEI), Bonn, Germany, pp 39-46.

The Robot is the Program: Interacting with roBlocks, Schweikardt, E., and Gross, M.D., Proceedings, Tangible and Embedded Interaction (TEI) 2008, Bonn, Germany, pp 167-168.

Computer-aided Critiquing Systems: Lessons Learned and New Research Directions, Oh, Y., Gross, M.D., and Do, E. Y-L., Proc. Computer Aided Architectural Design Research in Asia (CAADRIA), Chiang-Mai, Thailand

Escape Machine: Building a tangible state machine game controller with Posey, Weller, M.P., Do, E. Y-L., and Gross, M.D. ACM Conference on Interaction Design for Children (IDC) Chicago, IL, June 2008.

A Perspective on Computer Aided Design after Four Decades, Earl Mark, Gross, M.D., Goldschmidt, G. in 26th international conference on Education in Computer-Aided Architectural Design in Europe (eCAADe), Antwerp, Sept 17-20, 2008. pp. 169-178.

2007 **Environments for Creativity – A Lab for Making Things** Gross, M.D. and Do, E. Y-L. Proceedings, ACM SIGCHI Creativity and Cognition 2007, pp. 27-36

Why Toys Shouldn't Work Like Magic: Children's Technology and the Values of Construction and Control Gross, M.D. and M. Eisenberg, Proceedings First IEEE workshop on Digital Game and Intelligent Toy Enhanced Learning (DIGITEL) 2007, Jhongli Taiwan, March 26-28 2007, pp. 25-32.

A Brief Survey of Distributed Computational Toys, Schweikardt, Eric and M.D. Gross, Proceedings First IEEE workshop on Digital Game and Intelligent Toy Enhanced Learning (DIGITEL) 2007, Jhongli Taiwan, March 26-28 2007, pp. 57-64.

Strategies for Research about Design: a multidisciplinary graduate curriculum, Gross, Mark D., S.Finger, J.Herbsleb, M.Shaw, Proc. 2nd Intl Conf on Design Science Research in Information Systems & Technology (DESRIST), Claremont CA, May 13-15 2007

roBlocks: Understanding Emergent Complexity from the Bottom Up, Schweikardt, Eric and M.D. Gross, RSS 2007: Robotics Science and Systems Workshop on Research in Robots for Education, June 27-30, 2007, Atlanta, GA.

2006 **roBlocks: A Robotic Construction Kit for Mathematics and Science Education**, Schweikardt, Eric and M.D. Gross, Proceedings ACM International Conference on Multimedia Interaction (ICMI), Banff, Canada, Nov 2-4 2006, pp. 72-75.

The Designosaur and the Furniture Factory, Yeonjoo Oh, Gabe Johnson, Mark D Gross and Ellen Yi-Luen Do, in *Design Computing and Cognition,* (ed) John S Gero, Springer, pp. 123-140

Flow Select: A Time-Based Selection and Operation Technique for Sketching Tools, Gabe Johnson, Mark D Gross, Ellen Yi-Luen Do, International Conference of Advanced Visual Interfaces (AVI 2006) Venice, Italy, May 23-26, 2006

2004 **3 R's of Drawing and Design Computation,** M. Gross and E. Y-L Do, Design Computing and Cognition, J. Gero (ed), Kluwer, Cambridge Massachusetts, pp 613-632

A Computationally Enhanced Play Board for Group Interaction, O. Shaer, B. Ziraknejad, K. Camarata, E. Y-L. Do, M. Gross. (poster) Pervasive 2004, Vienna

As if You Were Here – Intelligent Annotation in Space: 3D Sketching as an Interface to Knowledge Based Systems, E. Y-L. Do, M. Gross, American Association for Artificial Intelligence (AAAI), Fall Symposium Oct 22-24

Critiquing Design Sketches, Y. Oh, E. Y-L. Do, M. Gross, American Association for Artificial Intelligence (AAAI), Fall Symposium Oct 22-24

2003 **MouseHaus Table, a Physical Interface for Urban Design** (poster) , Chen-Je Huang, Ellen-Yi Luen Do, Mark D Gross, Proc. User Interface Software Tools (UIST) 2003, Vancouver, CA

Light Pen: Sketching light in 3D, Thomas Jung, Mark D. Gross, Ellen Yi-Luen Do, Computer Aided Architectural Design Futures 2003, Tainan, Taiwan

MouseHaus Table (poster) Chen-Je Huang, Ellen Yi-Luen Do, Mark D Gross, Computer Aided Architectural Design Futures 2003, Tainan, Taiwan

Window Seat (poster), YeonJoo Oh, Ellen Yi-Luen Do, et al., Computer Aided Architectural Design Futures 2003, Tainan, Taiwan

Junk Mail to Spam Converter (poster), Michael Weller, Ellen-Yi-Luen Do, Jim Nicholls, Mark D. Gross, Fifth International Conference on Ubiquitous Computing, Seattle WA, ACM: 229-230.

2002 **Physical Computing: A Design Studio Bridging Art and Engineering,** Ken Camarata, Mark D. Gross, Ellen Yi-Luen Do, Proc. Int'l Conf. of the Learning Sciences (ICLS) 2002 (Seattle, WA) pp. 520-521.

Computationally-Enhanced Construction Kits for Children: Prototype and Principles, Michael Eisenberg, Ann Eisenberg, Mark Gross, Khomkrit Kaowthumrong, Nathaniel Lee, and Will Lovett, Proc. Int'l Conf. of the Learning Sciences (ICLS) 2002 (Seattle, WA). pp. 79-85.

Sketching Annotations in 3D on the Web T. Jung, E. Do, and M. Gross, ACM Conference on Human Factors (SIGCHI), ACM Press, pp. 618-619.

Navigational Blocks: Tangible Navigation of Digital Information, K. Camarata, E. Do, M. Gross, B. Johnson, ACM Conference on Human Factors (SIGCHI), ACM Press, pp. 751-752.

Annotating and Sketching on 3D Web Models, T. Jung, E. Do, and M. Gross, ACM Intelligent User Interfaces 2002, San Francisco, Jan 13-16, ACM Press, pp 95-102.

Navigational Blocks: Navigating Information Space with Tangible Media, K. Camarata, E. Do, M. Gross, B. Johnson, ACM Intelligent User Interfaces 2002, San Francisco, Jan 13-16, ACM Press, pp 31-38.

2001 **Smart Objects: Constraints and Behaviors in a 3D Design Environment,** D. Eggink, M.Gross, E. Do, in Proceedings of 19th Conference on Education in Computer Aided Architectural Design in Europe, Helsinki, August 31, 2001, pp 460-465.

FormWriter: A Little Language for Generating Three-Dimensional Form Algorithmically, Gross, M.D., in B. de Vries, J. van Leeuwen, and H. Achten. *Proc. Computer Aided Architectural Design Futures 2001, Eindhoven, Netherlands*. Kluwer Academic Publishers, pp. 577-588.

The Design Amanuensis: an Instrument for Multimodal Design Capture, Gross, M.D. Do, E. Y-L., and Johnson, B.R., in B. de Vries, J.P. van Leeuwen, and H.H. Achten. *Proc. Computer Aided Architectural Design Futures 2001, Eindhoven, Netherlands*. Kluwer Academic Publishers, pp. 1-13.

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2000 **Beyond the Low-hanging Fruit: Information Technology in Architectural Design, Past, Present, and Future,** Gross, M.D., Do, E.Y., and Johnson, B.R., Proc. ACSA Technology Conference 2000, Cambridge MA, pp. 100-106.

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1999 **Collaborative Design with NetDraw,** Dongqiu Qian and M.D. Gross, *Proceedings of Computer Aided Architectural Design Futures '99*, G. Augenbroe and C. Eastman, eds., Kluwer, Dordrecht, the Netherlands, pp. 213-226.

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Integrating Digital Media in Design Studio: Six Paradigms, Gross, M.D. and E. Do., *Proc. American Collegiate Schools of Architecture (ACSA) National Conference '99*, pp. 144-148.

1998 **Digital Clay: Deriving Digital Models from Freehand Sketches.** Schweikardt, E., and Gross, M.D., Digital Design Studios: Do Computers Make A Difference? ACADIA 98, T. Seebohm and S. V. Wyk, eds, *Association for Computer-Aided Design in Architecture*, Quebec City, pp. 202-211

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Not Just Another Pretty Face: Image and argument in an archaeological web site, Lewin, J., M. Erhardt, and M.D. Gross*, Computer Assisted Architectural Design Futures '97*, R. Junge, ed., Kluwer, Dordrecht, pp. 635-654.

MUD: Exploring Tradeoffs in Urban Design, Parker, L., A. Elliott, and M.D. Gross, *Computer Assisted Architectural Design Futures '97*, R. Junge, ed., Kluwer, Dordrecht, pp. 373-388.

Digital Sketchbooks for Collaborative Design, W. Citrin, P. Hamill, M.D. Gross, and A. Warmack, Collaboration and Coordination in Architectural Design: approaches to computer mediated work, *TeamCAD symposium on collaborative CAD,* Graphics, Visualization, and Usability Center, Georgia Tech. May 12-13, 1997, pp. 213-217.

Collaboration and Coordination in Architectural Design: approaches to computer mediated work, Gross, M.D., E. Do, R. McCall, W. Citrin, P. Hamill, A. Warmack, and K. Kuczun. *TeamCAD symposium on collaborative CAD,* Graphics, Visualization, and Usability Center, Georgia Tech, May 12-13, 1997, pp. 17-24.

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1996 **Elements that Follow Your Rules: Constraint Based CAD layout,** Gross, M.D., *Proceedings of Association for Computer Aided Design in Architecture (ACADIA) '96*, Tuscon, AZ, pp. 115-122.

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1995 **Drawing Analogies - Supporting Creative Architectural Design with Visual References,** Gross, M.D. and E. Do, in *3d International Conference on Computational Models of Creative Design*, M-L Maher and J. Gero, eds., Sydney: University of Sydney, pp. 37-58.

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1991 **Grids in Design and CAD**, Gross, M.D., in G. Goldman and S. Zdepski, eds., *Proceedings ACADIA 91 - Reality and Virtual Reality,* Los Angeles, pp. 33-43.

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Relational Modeling: A Basis for Computer-Assisted Design, Gross, M.D., in McCullough, Mitchell and Purcell, eds., The Electron*ic Design Studio*, Cambridge, MA: MIT Press, pp. 123-136.

1987 **Designing With Constraints**, Gross, M.D., J. Anderson, S. Ervin, A. Fleisher, in *The Computability of Design,* Y. Kalay, ed., New York: Wiley and Sons, pp. 53-83.

INVITED ARTICLES AND BOOK CHAPTERS

2013 **The Blind Men and the Elephant, or the Race of the Hobbyhorses**, M Gross, in *Software Designers in Action: A Human-Centric Look at Design Work*, Petre M and van der Hoek, A, Chapman and Hall/CRC 2013 (219-224)

2012 **Architectural Robotics, Inevitably**, Green, KE and M Gross, Interactions Magazine xix,1 January•February

2010 **Tangible Interaction = Form + Computing**, Baskinger, M and M Gross; Interactions Magazine xvii.1 January•February 2010 pp 6-11.

2009 **Visual Languages and Visual Thinking: Sketch Based Interaction and Modeling**, Gross MD, Eurographics Workshop on Sketch-Based Interaction and Modeling (keynote address), New Orleans, August 1 2009

Editor's Introduction: Back to the real world—Tangible interaction for design, Do, E-Y and M. Gross, Artificial Intelligence for Engineering, Design, Analysis, and Manufacturing (AI-EDAM), 23, 221-223.

Now More Than Ever: computational thinking and a science of design, Gross M.D., *JSSD: Journal of the Japanese Society for the Science of Design,* Vol 16-2 No 62

Thinking with Diagrams in Architectural Design, Do EY-L, Gross MD, in special student edition of "The Diagram," Architectural Review, p 50-54, printed by the Concrete Centre

2008 **Teletables and Window Seat: bilocative furniture-based interfaces,** Oh, Y., Camarata, K., Weller, M., Gross, M., Do, Y-L. in TYL Theng and H. Duh, Ubiquitous Computing: Design, Implementation and Usability, Idea Group Publishers.

2004 **Between Worlds: Visions and View for the Future of CAD,** Ellen Yi-Luen Do and Mark D Gross, in Generative CAD Systems, Edited by Ö. Akin, R. Krishnamurti, and K.P. Lam, pp. 61-78, Carnegie Mellon University (ISBN 0-9762941-0-9)

2004 **Diagramming and Drawing in Computer Aided Design –** entry for the Encyclopedia of Human-Computer Interaction, Berkshire Publishing Group.

2003 **How is a piece of software like a building? Toward general design theory and methods.** Position paper for National Science Foundation workshop on Science of Design: Software Intensive Systems, Virginia, Nov 2-4.

2002 **An Interactive Guide to Ancient Cerén Before the Volcano Erupted** Jen Lewin, Mark A. Ehrhardt, Mark D. Gross, and Payson Sheets CD-ROM, University of Texas Press

1999 **Drawing, Seeing, and Reasoning: The Added Value of Computer Aided Architectural Design,** Gross, M.D., in Proceedings Second Conference on Added Value of Computer Aided Architectural Design (AVOCAAD), Brussels, 8-10 April, 1999, [keynote], pp. 26-33.

1998 **Sketchy (Informal) Interfaces for Design of Intelligent Systems,** Gross, M.D., in Trends and Controversies, *IEEE Intelligent Systems (formerly IEEE Expert)* May, pp. 10-19.

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1995 **Diagram Query and Image Retrieval in Design,** Gross, M.D. and E. Do, in *Proceedings, 2nd IEEE International Conference on Image Processing*, vol II: 308-311.

Indexing visual databases in architecture with diagrams, Gross, M.D., in A. Koutamanis, H. Timmermans and I. Vermeulen, eds., *Visual Databases,* Aldershot: Avebury, pp. 1-14.

1992 **Predicting wayfinding in buildings - a schema-based approach,** Gross, M.D. and C. Zimring, in Y. Kalay and L. Swerdloff, eds., *Evaluating and Predicting Design Performance*. New York: Wiley, pp. 367-378.

1991 **Searching for the Environment in Environmental Cognition Research**, Gross, M.D. and C. Zimring, in Evans and Gärling, eds. *Environmental Cognition and Action*, Oxford University Press. pp. 78-95.

Constraint Based Design Environments for Architecture and Engineering, Gross, M.D., *Proceedings SOBRACON 1991 Conference on Computer Graphics in Architecture and Engineering Construction.* São Paulo. [keynote address]

A New Learning Environment: the NeoMuseum. Ueda, N. and M.D. Gross, *Proceedings International Conference on Hypermedia and Interactivity in Museums*, Pittsburgh, pp. 169-178.

1987 **Design and Use of a Constraint-Based Laboratory for Learning Design,** Gross, M.D., in *Artificial Intelligence and Education,* R. Lawler and M. Yazdani eds., New Jersey: Ablex, pp. 167-181.

BOOK REVIEWS

1998 Designing Digital Space by Daniela Bertol, *Computer Aided Design Journal* **30**(1):91.

1995 Electronic Color by Richard Norman. *Journal of Architecture and Planning Research* **12**(4):386-387.

1993 Visual Methods in Design Research by H. Sanoff. *J .Architecture and Planning Research* **10**(4):269-70.

PROCEEDINGS AND OTHER NON-REFEREED VOLUMES

2011 **Proceedings, Tangible Embedded, Embodied Interaction** of the ACM SIGCHI conference in Funchal, Madeira, Portugal, January 23-26 (co-editor with Nuno Nunes, Ellen Yi-Luen Do, Stephen Brewster, and Ian Oakley)

2011 **Proceedings, Work-in-Progress Tangible Embedded, Embodied Interaction Workshop** of the ACM SIGCHI conference in Funchal, Madeira, Portugal, January 23-26 (co-editor with Ellen Yi-Luen Do, and Ian Oakley)

2009 **Proceedings, Creativity and Cognition 2009** of the ACM SIGCHI conference in Berkeley, California, October 27-30 (editor).

2009 **Tangible Interaction in Design**, editor (with EY-L Do) special issue of *Artificial Intelligence in Engineering Design, Analysis, and Manufacturing (AI-EDAM)*.

2007 **Strategies for Research about Design: a multidisciplinary graduate curriculum**, Gross, M.D. Finger, S., Herbsleb, J., Shaw, M., in Humboldt State University (CA) Science of Design Workshop

2007 **Creative Design Computing**, Gross, M.D. Do, E., in Humboldt State University (CA) Science of Design Workshop

2007 **roBlocks: Understanding Emergent Complexity from the Bottom Up,** Eric Schweikardt and Mark D Gross, Robotics Science and Systems, Workshop on Robots for Education, Atlanta June 30

2004 **FlexM, Designing a Physical Construction Kit for 3D Modeling,** M. Eng, K. Camarata, E. Y-L Do, M. Gross, in Proceedings on CD ROM, Generative Computer Aided Design Systems conference, Carnegie Mellon University, Pittsburgh July 11-14.

Design Evaluator, Critiquing Freehand Sketches, Y. Oh, E. Y-L. Do, M. Gross, in Proceedings on CD ROM, Generative Computer Aided Design Systems conference, Carnegie Mellon University, Pittsburgh July 11-14

EspressoCAD, a System to support the design of dynamic structure configurations, M. Weller, E. Y-L Do, M. Gross, in Proceedings on CD ROM, Generative Computer Aided Design Systems conference, Carnegie Mellon University, Pittsburgh July 11-14

A**rtifacts for Displaying Home Energy Use,** K. Camarata, D. Bregel, E. Y-L. Do, M.. Gross, in Proceedings on CD ROM, Generative Computer Aided Design Systems conference, Carnegie Mellon University, Pittsburgh July 11-14

2001 ***Tools and Conceptual Frameworks for Early Stages of Design***, Workshop Proceedings, ACM CHI '01 (Human Factors in Computing) conference, Seattle WA, Nakakoji, K. Gross, M.D., Candy, L., Edmonds, E., eds.

1992 ***Equitable and Sustainable Habitats, Proceedings of the 23d annual meeting of the Environmental Design Research Association (EDRA-23)*****,** Arias, E. and Gross, M.D. eds., April 7-12 1992, Boulder

1989 ***Spatial Coordination Demonstration Program*****,** Gross, M.D.; N.J. Habraken; C. Fry; and M. Ruano, Final Project Report to Shimizu Corporation (3 volumes).

Designing and Designing Knowledge in Engineering and Architecture: Final Report to the National Science Foundation, Bucciarelli, L., S. Ervin, A. Fleisher., G. Goldschmidt, M.D. Gross, D. Schön, G. Wiggins, Grant # 8611357-DMC.

1988 ***Concept Design Games*** **(volume 1: *Defining*; volume 2 *Playing*)**, Habraken, N.J., Gross M.D. et al, final report to the National Science Foundation.

1986 ***Design as Exploring Constraints*****,** Gross, M.D., Ph.D. dissertation, Massachusetts Institute of Technology.

TECHNICAL REPORTS

2007 Design Research Summer School report to the National Science Foundation (Gross, Finger, Herbsleb, Shaw); http://code.arc.cmu.edu/~johnsogg/drss_wrapped/

2001 Final report to National Science Foundation, Back of an Envelope Project, Grant # IIS-96-19856 and IIS-00-96138. Gross, M.D.

2000 The PlaceMaker, Design Machine Group Technical Report, Gross, M.D.

1999 Collaboratively Annotating 3D Design Worlds Design Machine Group Technical Report, Gross, M.D. E, Do, T. Jung.

Sketch that Scene for Me: Creating Virtual Worlds by Freehand Drawing, Design Machine Group Technical Report, Gross, M.D., E. Do.

1997 HyperSketch II, Final report to Colorado Advanced Software Institute, Gross, M.D. and M. Dalrymple, Undergraduate Research Grant.

PDA based graphical interchange for field service and repair workers, Gross, M.D., W. Citrin, P. Hamill, A. Warmack, and S. Laufmann, Final report to Colorado Advanced Software Institute.

1996 Drawing as an Interface to Knowledge Based Design, Gross, M.D., J. Lewin, E, Do, K. Kuczun, and A. Warmack, final report of a Colorado Advanced Software Institute Undergraduate Research Grant.

1993 User Interfaces with Intelligent Objects, Gross, M.D. and Boyd, C., Colorado Advanced Software Institute Technical Report

1992 Constraints Provide Domain Behavior in a Construction Kit, Gross, M.D. and Boyd, C. University of Colorado Computer Science Technical Report (CU-CS-583-92).

1989 Summary Report CM2: A Constraint Based Design Environment, Ervin, S., M.D. Gross, and A. Fleisher. in Bucciarelli, L.; S. Ervin; A. Fleisher.; G. Goldschmidt; M.D. Gross; D. Schön; G. Wiggins Designing and Designing Knowledge in Engineering and Architecture: Final Report to the National Science Foundation, Grant #DMC-86-11357.

CM2: A Constraint Manager for Design Exploration on the Macintosh, Ervin, S., and M.D. Gross, in Bucciarelli, L.; S. Ervin; A. Fleisher.; G. Goldschmidt; M.D. Gross; D. Schön; G. Wiggins Designing and Designing Knowledge in Engineering and Architecture: Final Report to the National Science Foundation, Grant #DMC-86-11357.

1981 SAR/LOGO Tissue Model, Gross, M.D. and J. Kapteijns, S.A.R. Working Paper.

NON-REFEREED PAPERS

2014 **Cube-in: A Learning Kit For Physical Computing,** Oh, H and Gross, MD: demonstration paper at ACM Interaction Design for Children (IDC), June 27-30.
http://idc2014.org/wp-content/uploads/2014/09/idc20140_submission_186.pdf

2007 Gross, M. D. (2007). Designers Need End-User Software Engineering. End-User Software Engineering, Dagstuhl, Germany, Internationales Begegnungs- und Forschungszentrum fuer Informatik (IBFI), Schloss Dagstuhl, Germany.

1999 Freehand Drawing as an Interface to Knowledge Based Design, Gross, M.D. and E. Do, in Proc. Human-Computer Interface Grantees Workshop '99, K. Stanney and G. Strong, eds., Orlando FL, Feb. 21-23, pp. 162-163

1998 The Sundance Lab: Design Systems of the Future, Do, E. and M.D. Gross, *Association for Computer Aided Design in Architecture Quarterly*, December 1998

1997 Thinking with Diagrams in Architectural Design, Do, E. and M.D. Gross, paper for Thinking with Diagrams workshop, Alan Blackwell, chair Portsmouth, UK.

1995 Avoiding Conflicts in Subsystem Layout, Gross, M.D., NSF Grantees Conference, San Diego

1993 CAD in Education, Gross, M.D., in *ACADIA Quarterly*.

1989 Automated Coordination for Construction Management, Gross, M.D., *Proceedings of the Conference International Batiment (CIB)* Paris.

BROCHURES, CATALOGS, AND OTHER PUBLICATIONS

2001 Design Machine Group, project work catalog at University of Washington's Design Machine Group.

1999 Introduction to Into 3D with form•Z: Modeling, Rendering, and Animation by Lachmi Khemlani, McGraw Hill, Gross, M.D.

1998 Multimedia Unplugged: A Learning Design Workshop, Workshop Catalog, NeoMuseum, Yoshino, Japan.

1998 KosmoPolis MultiOptikon, Workshop Catalog, Istanbul from Taksim to Sultanahmet Square. Yildiz Multimedia Workshop.

VIDEOTAPES AND ELECTRONIC PUBLICATIONS

2001 SpacePen, Videotape demonstration, Jung, T., E. Do, and M.D. Gross

Digital Sandbox, Videotape demonstration, Harris, R., E. Do, (production M.D. Gross)

1999 Digital Clay, Videotape demonstration (5:00), Gross, M.D. and E. Do

Collaborative Design with NetDraw, Videotape demonstration (6:00), Gross, M.D., D. Qian, & E. Do

the Electronic Cocktail Napkin, Videotape demonstration, Gross, M.D. and E. Do

Architects for the Twenty-first Century: Race, Class, and Culture, Videotape (30:00) of workshop held at University of Colorado, March 13,1999, Gross, M.D., J. Ramos, and A. Fabrikant.

Immersive Redlining, Videotape demonstration (8:55), Gross, M.D., T. Jung, E. Do, J. Davidson.

The Ceren Web Resource (CD-ROM) and Web Site (http://ceren.colorado.edu), Gross, M.D., Sheets, P., Lewin, J., and Ehrhardt, M.

The Pyramids of Knowledge (CD-ROM) and Web Site. Thomas Jung, Developer; Project Supervisors Mark D. Gross and Ellen Yi-Luen Do.

1998 the Hagia Sophia Web Resource, Gross, M.D. and M.Ehrhardt., interactive Web site http://depts.washington.edu/dmachine/istanbul

KosmoPolis MultiOptikon: Istanbul from Taksim to Sultanahmet Square, interactive Web site Gross, M.D. and Lewin, J. (with students from Yildiz Technical University) http://depts.washington.edu/dmachine/kosmopolis

1997 Local Area Networks Tools and Tasks, Videotape demonstration, Gross, M.D. and K. Kuczun.

1996 Ambiguous Intentions: Contextual Recognition, Gross, M.D. & E. Do, Video (8:00) demo.

INVITED TALKS AND PRESENTATIONS

2011 Invited talk and workshop: Tokyo Denki University "Architectural Robotics", (October)

2010 Keynote: Global COE Conference on "Biofied Buildings", Keio University, Japan (November)

Invited talks: Tainan University of Technology, Shu-Te University, Taiwan (June)

Distinguished Speaker: Institute for Software Research, University of California, Irvine (April 23 2010.

2009 Invited talks: National Central University, Jhong-Li Taiwan, Department of e-learning (November)

Keynote: Eurographics Workshop on Sketch-Based Interaction and Modeling, New Orleans, (August 1, 2009)

Colloquium, Centre for Playware, Danish Technical University, Copenhagen (March 2009)

2007 Invited participant: Dagstuhl (Germany) Workshop on End User Software Engineering

Invited talk: Brown University Pen-Centric Computing Center, Symposium on Pen-Centric Computing.

2006 Keynote: How to better design things and how to design better things? Danish HCI Symposium, Aarhus Denmark, Nov 15, 2006

2003 Invited Lecture: The Legacy of Horst Rittel: toward a science of design, computationally expressed. Design Theory & Methods Symposium, University of California, Berkeley, Oct 3-4, 2003.

2002 Keynote: Design, Computation, and the Interface - at Software Symposium 2002, Matsue, Japan (national conference of the Japan Software Engineering Association). July 17 2002

Lecture: from computing to design and back again - NTT Communication Sciences Research Lab, Kyoto, Japan. July 22, 2002

Lecture: Design, Computation, and the Interface - University of Tokyo, Research Center for Advanced Science and Technology, July 15, 2002

Lecture: Design Machine Group: current work Architecture Department, Carnegie Mellon University, March 4, 2002

2001 Lecture: Current Work at the Design Machine Group (with E. Do, B. Johnson, T. Jung) – Industrial Design Department, Technical University of Delft, July 12, 2001

Workshop co-organizer: (with L. Candy, E.Edmonds, K. Nakakoji) Tools and Conceptual Frameworks for Early Stages of Design ACM CHI '01 (Human Factors in Computing) conference, Seattle WA, April 1, 2001

Lecture: Sketchy Interfaces, ACM SIGCHI (Association for Computing Machinery: Special Interest Group in Computer Human Interaction), Puget Sound Chapter, Feb 22, 2001

2000 Lecture: Information in Place - invited speaker, Society for Technical Communication, Puget Sound Chapter, Nov 14, 2000

Invited Lecture: Collective Creativity and Interactive Systems in Design, Sakigake workshop on Collective Creativity, Nara Japan, August 7-8, 2000

Keynote address: Research and Computer Aided Design, DRN2000 - Design Research in the Netherlands 2000, Eindhoven, the Netherlands, May 24-25, 2000

1999 Keynote address: Design and Human-Computer Interaction, IHC'99 (Brazilian Human-Computer Interaction society), Campinas, Brazil, October 19, 1999

McKinley Invited Lecture: Architecture in the Digital Age: Creativity, Method, and Computer Aided Design, University of Washington, Seattle, October 7, 1999

Keynote address: Drawing, Seeing, and Reasoning,, Second International AVOCAAD Conference: the added value of computer aided architectural design, Brussels, Belgium, April 8-10, 1999

Panelist, Launch Party and Discussion Forum for the ATLAS Millennium Web Site, Front Porch Series, Department of Fine Arts, University of Colorado, 18 March, 1999

1998 Lecture and Invited workshop Digital Representations of Place at Yildiz Technical University, Istanbul, May 1- 5, 1998

Lecture: Computer Aided Design Research at the Sundance Lab, College of Architecture, Georgia Institute of Technology, March 20, 1998

Lecture: Human Computer Interaction and Computer Aided Design College of Computing, Georgia Institute of Technology, March 19, 1998

Computer Aided Design in Architecture, Department of Architecture, University of Washington, March 9, 1998

Lecture: Sketching as Media for Interacting with Computers in Design at Computer Science Department, Tokyo Institute of Technology, February 23, 1998

Lecture: CAD Tools for Collaboration at Communication Department, Tama Art University, Tokyo, February 22, 1998

Lecture: Interactive Tools for Design at Nara Advanced Institute of Science and Technology, Jan 17, 1998

1997 Lecture: PDA based graphical interchange for field service and repair workers, Colorado Advanced Software Institute, Phipps Mansion, Denver, Colorado.

Invited Talk The Design Studio, Gross, M.D. and E. Do, at NSF Workshop on Design Education, Georgia Tech, September 5-8 1997

Design Computing in Architecture, The Ohio State University, July 2, 1997

Presentation: Emergence in Sketching - ACM CHI'97 Workshop on Emergence of Concepts and Forms, Atlanta GA, April 1997

Panelist, on Design and Technology, for FORUM 97, National Conference of American Institute of Architectural Students (AIAS), Hyatt Regency, Denver, November 28, 1997

1995 Lecture: The Electronic Drawing Board - Design Studies and Computing Georgia Institute of Technology, College of Architecture, April 20-21, 1997

Invited Lecture: Architectural Computing Research and Education, University of Edinburgh, Scotland, Feb 5-7, 1995

1994 Invited visiting scholar, Nucleus of Informatics and Education, University of Campinas, Brazil. July 1-12

1993 Lectures: Advances in sketch recognition, Constraint-based techniques and their applications in design, and Artificial intelligence in architectural design, Georgia Institute of Technology.

1992 Lectures: Computing in Architectural Education and Design as Exploring Constraints University of California, Berkeley.

Project Report: User Interfaces with Intelligent Objects, Colorado Advanced Software Institute, Phipps Mansion, Denver Colorado.

1991 Keynote: Constraint Based Design Environments for Architecture and Engineering SOBRACON - Annual Conference, Society for Automation and Numerical Control, São Paulo, Brazil.

Convocation Speech, Intelligent Machines and Creative Work, Drury College, Springfield Missouri.

1990 Lectures: On the Architectural Argument, and Constraint Based Drawing, Georgia Institute of Technology, College of Architecture and College of Computing.

RESEARCH SUPPORT AND AWARDS

2013 Sketch It, Make It —National Science Foundation (to Blank Slate Systems, PI Gabe Johnson) Small Business Innovative Research Phase I: 150,000

2012 Learning Design Synthesis with a Mechatronics Construction Kit —National Science Foundation (to Modular Robotics, PI Eric Schweikardt) Small Business Innovative Research Phase I: 150,000

2012 Innovation Corps grant, National Science Foundation, for Sketch It, Make It: $50,000

2010 Workshop: Graduate Student Consortium at Tangible Embedded Interaction 2010, National Science Foundation: $20,520.

2010 Learning about Complexity with a Modular Robotics Construction Kit —National Science Foundation (to Modular Robotics, PI Eric Schweikardt) Small Business Innovative Research Phase II: 100,000

2009 International workshop on Architectural Robotics, National Science Foundation (with Keith Evan Green, Clemson University): $32,062, at Ubicomp 2009 in Orlando, Florida.

Association for Computer Aided Design in Architecture (ACADIA), Teaching Excellence Award.

2008 Learning about Complexity with a Modular Robotics Construction Kit —National Science Foundation (to Modular Robotics, PI Eric Schweikardt) Small Business Innovative Research Phase I: 100,000

2006 Summer Workshops for Software Design Research — National Science Foundation (with M. Shaw, J. Herbsleb, S. Finger): $130,000 to design, develop, and deliver a model interdisciplinary summer workshop in design research for graduate students.

2003 Computationally Enhanced Construction Kits — National Science Foundation (with M. Eisenberg): $1.8M for 5 years to explore the space of computationally enhanced construction kit toys and digitally produced craft.

2001 UrbanSim — National Science Foundation (with A. Borning (PI), co-PIs P. Waddell, D. Notkin, Z. Popovic, B. Friedman): $3.5M for 5 years to develop and test a system to project impacts of land use and transportation system decisions in an urban context that will enable citizens and decision makers to explore possible design alternatives.

A Center for Digital Art — University Initiative Fund (with R. Karpen (lead), P. Berger, E. Lazowska, M. Harrison, D. Thome): $700,000 per year to establish an interdisciplinary center for digital art research and education at the University of Washington.

2000 Transforming Architectural Education through Technology — University of Washington, Tools for Transformation grant: $328,248, to enable students of architecture to employ current computational media and technologies in their architectural studio work.

1999 Research Initiation funding for Design Computing Research Laboratory — University of Washington (with E. Do) $255,508 (3 years) seed funding to establish a laboratory in Architecture Hall for exploration in computational design methods and means.

1997 Back of an Envelope an Architecture for Knowledge Based Design Environments — National Science Foundation: $320,000 (3 years) to explore and demonstrate a recognition based system architecture for freehand drawing as an interface to design application programs.

1996/7 Virtual Archaeology at the Ceren Site — University of Colorado President's Changing the Learning Paradigm: (with P. Sheets), $35,000 (1 year) to develop an interactive and informative virtual environment for learning about an archaeological site in El Salvador, using diverse Web media; continuation funding (additional $30,000) for 1997/8.

1996 PDA based graphical interchange for field service and repair workers — Colorado Advanced Software Institute and USWest Advanced Technologies: (with W. Citrin), $46,800 (1 year) to develop and demonstrate prototype software for a hand-held networked digital notepad.

Bringing Learning Activities to Life — National Science Foundation: (with G. Fischer (PI) M. Dubin, E. Arias, T. Neese, A. Repenning): $50,000 (1 year). Planning grant for a CRLT (Center for Research in Learning Technologies) proposal.

1995 A Teaching Toolkit for Technology Enhanced Education — University of Colorado President's Fund for Educational Technology: (with J. Herdt) $35,000 (1 year) to develop software to support Web based teaching and learning.

1993 Avoiding Conflicts in Subsystem Layout in Architectural Design: a constraint based approach — National Science Foundation: $140,000 (2 years) to demonstrate the application of constraint based CAD to systematizing the layout of building components.

1993 Avoiding Conflicts in Subsystem Layout in Architectural Design — University of Colorado at Boulder, Grant in Aid, $2,450

1991 Intelligent Objects in User Interfaces — Colorado Advanced Software Institute: $30,000 (1 year) to demonstrate a graphics system that employs constraints to embed behavior in interface objects.

Support for undergraduate research assistants

1999 University of Colorado Undergraduate Research Opportunities Program: (Support for undergraduate research assistant Mark Ehrhardt, Interactive Visual Educational Environments): $600.

1997 Colorado Advanced Software Institute: Hypersketch II: Creating and Navigating Drawing Relationships- (support for undergraduate research assistant Mike Dalrymple): $3,000.

University of Colorado Teaching Award: $3000, support for undergraduate research assistant Jenniffer Lewin: Information Design Studio.

University of Colorado Faculty Grants: support for undergraduate research assistant Laura Parker: Multi-user urban design: $1400.

University of Colorado Undergraduate Research Opportunities Program: support for undergraduate research assistants (Schweikardt, Dalrymple, Page-Echols, Ehrhardt), 4 mini-grants totaling $5,000.

1996 University of Colorado Undergraduate Research Opportunities Program: support for undergraduate research assistants, 2 mini-grants totaling $2,000.

Colorado Advanced Software Institute: Drawing as an interface to knowledge based systems (support for undergraduate research assistant Kristin Mayfield): $3,000.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

European Computer Aided Architectural Design Education (eCAADe)

Association for Computer Assisted Design in Architecture (ACADIA)

Association for Computing Machinery (ACM)

Institute of Electrical and Electronic Engineers (IEEE) Computer Society

EXCERPTS AND DESCRIPTIONS OF WORK IN POPULAR PRESS AND BOOKS

WTAE - TV local story on http://www.thepittsburghchannel.com/video/15411139/index.html

O'Reilly Radar (April 2008) Simple Blocks to Make Robots http://radar.oreilly.com/archives/2008/04/roblocks-simple-blocks-to-make.html

Center for Interactive Spaces blog: (February 2008) Posey http://www.digitalexperience.dk/

The New Scientist online (January 2008)Smart Lego Conjures Up Virtual Twin - http://technology.newscientist.com/article/dn13261-smart-lego-conjures-up-virtual-3d-twin.html

Slashdot (January 2008) slashdot.org/article.pl?sid=08/01/31/1622215 CAAD Talks, ed Mao-Lin Chiu, NCKU (2003)

Pacific Northwest Science and Technology magazine, Next Generation Tools for Architects, Autumn 2002

KUOW 94.6 FM Seattle - Weekday program on Intelligent Buildings, commentator, 7 May 2001

Carillon, University of Colorado at Boulder, 12 March 1999: Code As Art: Bringing Programming to the Masses as a Creativity Tool

Science, NetWatch column, November 20, 1998, the Ceren Virtual Archaeology Site

CADENCE Magazine: January 1999, Digital Clay Project

Rendering Real and Imagined Buildings (book by B.J. Novitski), Van Nostrand Reinhold, 1999, Ceren Virtual Archaeology Site

INVENTION DISCLOSURES

2007 roBlocks: A Robotic Construction Kit for Mathematics and Science Education, Eric Schweikardt and Mark D Gross

2006 A control device for designed for controlling the color and brightness of digitally controlled full spectrum lighting, Jake Pierson, Ellen Do, Mark D Gross

2006 Flow Selection (a time based method of selection in graphical user computer interfaces) Gabe Johnson and Mark D Gross

COURSES TAUGHT

Fall 2007 - Fall 2010 Making Things Interactive

June 2007 co-organizer (with Shaw, Herbsleb, Finger): Design Research Summer School, one-week workshop for PhD students from other universities, to help them formulate dissertation research about design.

Spring 2007 Strategies for Research in Design (with Shaw, Finger, Herbsleb),

Fall 2006, Spring 2007 Architectural Robotics http://www.architecturalrobotics.org

Fall 2006 Spring 2007 Digital Fabrication http://code.arc.cmu.edu/~mdg/DigFab07

Research Practice: (2003)
day-to-day skills and knowledge needed to do research (writing, bibliography, funding, ethics)

Architectural Design Studio: Mapping the Terrain: (2002)
mixed media and construction; parking garage rehab project for artist drop-city housing.

Architectural Design Studio: Digital Design Build (2001)
Explores the near-term future of architecture, where buildings will embed computational capabilities.

Theory of Design Computing (1999, 2001, 2003)
reviews design research and its applications in computer-aided design.

Design of Virtual Worlds: (1997, 2000, 2002)
Seminar about on-line communities; project work constructing web based places.

Things That Think: (1997, 1998)
Interdisciplinary studio-workshop course on integrating computation in physical artifacts.

Observing Built Form: (1996)
Students observe, document, and discuss the built environment using diverse media.

Introduction to Computing in Design:
Fundamentals of computer applications in architecture.

Making MultiMedia Maps:
Seminar using information technology to make interactive maps.

Three-Dimensional Modeling with Computer Graphics:
Fundamentals of 3D modeling in architecture.

Computer Graphics Programming:
Introduction to design and implementation of computer graphics programs.

The Future of Computer Aided Design:
Seminar considers impacts of information technology in design.

Design Theory and Methods:
Surveys design methods and processes in architectural design.

DOCTORAL DISSERTATION COMMITTEES

Michael Weller (Computational Design, Carnegie Mellon University)
Hyunyoung Song (Computer Science, University of Maryland)
Chih-Pin Hsiao (Architecture, Georgia Institute of Technology)

Karl D.D. Willis Ph.D., ’13 (chair)
Ubiquitous Projection: New Interfaces using Mobile Projectors
Computational Design, School of Architecture, Carnegie Mellon University

Gabe Johnson Ph.D. ’12 (chair)
Sketch-based Interaction for Design
Computational Design, School of Architecture, Carnegie Mellon University

Sora Key Ph.D. ’12 (Chair)
A Computable Language of Architecture: Towards Building Descriptive Models of Spatial Qualities
Computational Design, School of Architecture, Carnegie Mellon University

Yingdan Hunag Ph.D. ‘12
Easigami: Virtual Creation by Physical Folding
Computer Science, University of Colorado, Boulder

Sunil George Abraham Ph.D. ‘11
Evaluating the Impact of a Pattern Structure on Communicating Interaction Design Advice
Informatics, Drexel University)

Yeonjoo Oh Ph.D. ’10 (chair)
Toward a Theory of Design Critiquing
Computational Design, School of Architecture, Carnegie Mellon University

Eric Schweikardt Ph.D. ’08 (chair)
Designing Modular Robots
Computational Design, School of Architecture, Carnegie Mellon University

Peter Scupelli Ph.D. ‘08
Designing information hotspots for the surgical suite:
How architecture, artifacts, and people's behavior converge to support coordination.
Human-Computer Interaction Institute, Carnegie Mellon University

Lisa Anthony Ph.D. ‘08
Developing Handwriting-based Intelligent Tutors To Enhance Mathematics Learning
Human-Computer Interaction Institute, Carnegie Mellon University

Leah Buechley Ph.D. ’07
e-textiles
Computer Science, University of Colorado

Mamoun Sakkal (pre-comprehensive exam)
Geometry and Computation in Traditional Islamic Architecture
Near and Middle Eastern Studies, University of Washington.

Thomas Wrensch Ph.D. ’01
Computation and Craft
Computer Science (University of Colorado, Boulder)

Ellen Yi-Luen Do Ph.D. ’98
The Right Tool at the Right Time: inferring intention from designers’ sketches
Architecture (Georgia Tech)

Judy Gurka Ph.D. ‘96
Pedagogic Aspects of Algorithm Animation
Computer Science (University of Colorado, Boulder)

Tamara Sumner Ph.D. ’96
Toolbelts and Domain Oriented Design Environments
Computer Science (University of Colorado, Boulder)

David Theobald Ph.D. '95
Morphology and Effects of Mountain Land Use Change in Colorado
Geography (University of Colorado, Boulder)

Pei-Yu Huang Ph.D. '94
An Object Oriented Environment for Computer Aided Design
Civil Engineering (University of Colorado, Boulder)

Jeffrey McWhirter Ph.D. '94
Characterization, Specification, and Generation of Visual Language Applications
Computer Science (University of Colorado, Boulder)

Nick Wilde Ph.D. '94
Design of Visual Programming Environments
Computer Science (University of Colorado, Boulder)

Roland Hübscher Ph.D. '94
Imposing Structure on Action: A Framework for Visual Advice-Based Programming
Computer Science (University of Colorado, Boulder)

Alex Repenning Ph.D. '94
AgentSheets: From General Purpose Visual Programming Environments to Domain Tailorable Spatial Reasoning Substrates
Computer Science (University of Colorado, Boulder)

Kumiyo Nakakoji Ph.D. '93
Delivering Case Based Information in Integrated, Knowledge-based Design Environments
Computer Science (University of Colorado, Boulder)

Gerry Stahl Ph.D. '93
Supporting Interpretation in Design
Computer Science (University of Colorado, Boulder)

Andreas Girgensohn Ph.D. '92
End User Modifiability in Knowledge-Based Design Environments
Computer Science (University of Colorado, Boulder)

MASTER THESIS COMMITTEES

Yeonjoo Oh Master of Science, Design Computing, (June, 2004)
Design Evaluator: critiquing freehand sketches

ChenJe Huang Master of Science, Design Computing, (June, 2004)
Tangible MouseHaus Table: an physical interface for collaborative design

Markus Eng Master of Architecture, (June 2004)
FlexM: a computationally enhanced geometric construction kit

Doo Young Kwon Master of Science, Design Computing, December 2003
ArchiDNA – A Generative System for Shape Configurations

Michael Philetus Weller Master of Architecture, June 2003

Espresso Blocks: self-configuring building blocks

Preechaya Therakomen Master of Architecture, December 2001 (chair)
Mouse.class: Pedestrian Behavior in Urban Places

Dustin Eggink Master of Architecture, December 2001 (chair)
Smart Objects

Ming Chun Lee Master of Architecture, December 2001 (member)
The SpaceMaker - A Symbol-based Three-dimensional Computer Modeling Tool for Early Schematic Development of the Architectural Design

Rob Harris Master of Landscape Architecture, August 2001 (member)
Digital Sandbox

William Washington Master of Technical Communication, June 2001 (member)
Affective Media

Kennith Camarata Master of Architecture, June 2001 (member)
Navigational Blocks: an interplay between the physical and the virtual

Doddy Samiaji Master of Architecture, June 2001 (chair)
Development Simulator

Luis F. Borrero Master of Architecture, June 2001 (chair)
DeliverEroom: A new physical space for the residential units to come

Mathew L. Albores Master of Architecture, June 2001 (chair)
Y2K~02000: A Clock/Library for the Deep Future

Misun Chung Master of Architecture, June 2000 (chair)
A Sacred Place in CyberSpace

Dongqiu Qian Master of Design Studies, Design Computing, June 1999 (chair)
(University of Colorado)
A Lightweight Java-based Computer Aided Design Toolbox

Nabeel Koshak Master of Architecture, June 1997 (chair)
(University of Colorado)
Strategies for Constructing CAD Models of the Historic Buildings in the City of Makkah

Paul J. Hamill III Master of Electrical and Computer Engineering, June 1998
(University of Colorado)
Internet Structure Visualizations

ADVISORY AND EDITORIAL BOARDS AND PROGRAM COMMITTEES

2011	Conference Co-Chair, Tangible Embedded Embodied Interaction '11 (Madeira, Portugal)
2010	Chair, Graduate Student Consortium, Tangible Embedded Embodied Interaction (MIT)
	Editorial Board, Journal of Educational Technology and Systems (JETS).
2009	Program Chair: ACM Creativity and Cognition
	Associate Chair: ACM Interaction Design and Children
2007	Program Committee ACM Creativity and Cognition Conference

2004, 2006	Intl Design Computing and Cognition Conference
2006-present	Research in Engineering Design
2002-present	Editorial board, *CoDesign Journal*
2001	Advisory Board, Carnegie Mellon University, Department of Architecture Program Committee, Diagrams 2002, 2nd Int'l Conf.Theory & Applications of Diagrams. Program Committee, IEEE Symposium on End User Programming Program Committee, Spatial and Visual Reasoning II
2000	Advisory Board, 6th Int'l Conference on Artificial Intelligence in Design
1999	Program Committee, Diagrams 2000: First International Conference on Theory and Application of Diagrams
1998	Program Committee, International Round Table Conference Computational Models of Creative Design
1997-	Editorial Board, International Journal of Design Computing
1995-1997	Steering Committee, Association for Computer Aided Design in Architecture
1991-1997	Advisory Board, International Conference on Artificial Intelligence in Design
1996	Advisory Board, Formal Aspects of Collaborative CAD '97
1995	Advisory Board, Computational Models of Creative Design '95
1992-1994	Advisory Board, Congresso Internacional de Computação Grafica
1992	co-chair (with Ernesto G. Arias), EDRA (Environmental Design Research Association) National Conference, Boulder, Colorado
1991-	Advisory Board, CADLine—Bibliographic Reference Source for CAD
1991-	Advisory Board, The Children's Media NeoMuseum, Yoshino, Japan

REFEREE OF MANUSCRIPTS, MATERIALS, AND GRANT PROPOSALS

2007	ACM Creativity & Cognition (C&C), ACM User Interface Software Technology (UIST), ACM Human Factors in Computing (CHI), ACM Visual Languages and Human-Centric Computing (VL-HCC) , Eurographics workshop on Sketch Based Interaction and Modeling, ACM Tangible and Embedded Interaction (TEI), Computer Aided Architectural Design Futures (CAAD Futures), Computer Aided Architectural Design and Research in Asia (CAADRIA), Journal of Engineering Design, National Science Foundation proposal reviews (CISE), tenure and promotion reviews (various schools)
2006	ACM User Interface Software Technology (UIST), ACM Human Factors in Computing (CHI), ACM Visual Languages and Human-Centric Computing (VL-HCC) , Eurographics workshop on Sketch Based Interaction and Modeling, ACM Tangible and Embedded Interaction (TEI), Design Computing and Cognition (DCC), Computer Aided Architectural Design and Research in Asia

(CAADRIA), International Conference on Multimodal Interaction, Open House International, Journal of Engineering Design, HCI Journal, IEEE Computer Graphics and Applications, Artificial Intelligence in Engineering Design and Manufacturing (AI-EDAM), tenure and promotion reviews (various schools), program review Herbst Center for the Humanities in Engineering (U. Colorado), MIT Press

2005 Children & Youth Environments (journal), ACM Human Factors in Computing (CHI), Design Decision Support Systems (DDSS), ACM User Interface Software Technology (UIST), Artificial Intelligence in Engineering Design and Manufacturing (AI-EDAM), Interacting with Computers, Eurographics workshop Sketch Based Modeling, ACM Visual Languages and Human-Centric Computing (VL-HCC), IEEE Transactions on Multimedia, CoDesign Journal, Automation in Construction, J. Computing and Information Science in Engineering.

2004 SIGGraph, eCAADe, Building Futures Conference, CoDesign Journal, Artificial Intelligence in Engineering Design and Manufacturing (AI-EDAM)

2003 CMU Conf. on Generative Computer Aided Design Systems (G-CAD), Int'l Conf. Design Computation and Cognition (DCC), Int'l Journal Document Analysis and Recognition (IJDAR), Int'l Conf. Design Decision Support Systems '04, ACM Conf. User Interface Software Technology (UIST) , 2nd International Workshop on Computer Graphics and Geometric Modeling, CGGM'2003, INTERACT '03, ACM Workshop on Interactive 3D; ACM SIGGraph '03, Education in Computer Aided Architectural Design in Europe '03; Diagrams Journal, MIT Press

2002 ACM conference on Interactive 3-D (I3D)
Research in Engineering Design Journal
First European Workshop on Diagrammatics and Design
Design Knowledge Sharing through Internet Application
ACM SIGGraph 2002,
University of Sydney doctoral dissertation (external review)

2001 Second International Conference on the Theory and Applications of Diagrams
International Conference on Artificial Intelligence in Design (AID '02)
Computer Aided Architectural Design Research in Asia (CAADRIA '02)
ACM Transactions on Internet Technology (ToIT)
Computational Models of Creativity Symposium
Computer Supported Cooperative Learning (CSCL) Conference
ACM User Interface Software and Technology (UIST) Conferfence
Human-Centered Computing Conference
INTERACT '01 conference
Education in Computer Aided Architectural Design in Europe (eCAADe)
International Conference on Spatial & Visual Reasoning II
Association for Computer Aided Design in Architecture (ACADIA)
Automation in Construction Journal
Computer Aided Design Journal
MIT Press
Tenure and promotion review, University of California, Los Angeles

2000 Computer Aided Architectural Design Futures 2001
American Society of Mechanical Engineers Design Theory & Methodology Conference
Landscape Journal
International Conference on Theory and Applications of Diagrams 2000
Co-Designing 2000

Association for Computer Aided Design in Architecture (ACADIA)
Computer Aided Architectural Design Research in Asia (CAADRIA)
Automation in Construction Journal
Computer Aided Design Journal
The University of California MICRO Grants Program
Canadian Fund for Innovation (FCAR)

1999 Education in Computer Aided Architectural Design in Europe (eCAADe)
International Conference on Artificial Intelligence in Design (AID)
Design Computing Network (DCNet) conference
Association of Collegiate Schools of Architecture (ACSA) National Conference
ACM Symposium on Applied Computing (SAC)
Computer Aided Architectural Design and Research in Asia (CAADRIA) '99
International Conference on Visual and Spatial Reasoning '99
Computer Aided Architectural Design Futures '99
Tenure and promotion review, UC Berkeley
Tenure and promotion review, Carnegie Mellon University

1998 ACM User Interface Software Tools (UIST) Conference
Transactions on Computer Human Interface (ToCHI)
2nd Int'l Conference on Added Value of Computer Aided Architectural Design (AVOCAAD)
Association for Computer Aided Design in Architecture (ACADIA) Conference
International Conference on Artificial Intelligence in Design (AID)
Encyclopedia of Creativity
Int. Journal Design Computing (IJDC)
NSF Small Business Innovative Research (SBIR) panel
Tenure and/or promotion review, University of Virginia

1997 Association for Computer Aided Design in Architecture (ACADIA) Conference
International Conference on Artificial Intelligence in Design (AID) Conference
Automation in Construction Journal
Int'l J. Human-Computer Systems
Creativity Research Journal
J. Visual Languages and Computing
Van Nostrand Reinhold publishers
NSF Information, Robotics, and Interactive Systems (IRIS)

1996 Association for Computer Aided Design in Architecture (ACADIA) Conference
International Conference on Concurrent Engineering
Knowledge Based Systems Journal
Hong Kong Papers on the Built Environment
J. Artificial Intelligence in Engineering Design & Manufacturing (AI EDAM)

1995 International Federation of Information Processing WG 5.2 conference on CAD
IEEE Computer, special issue on visual languages
Journal of Visual Languages and Computing

1994 MIT Press (Bradford Books)
Society for Applied Computing (SAC) National Conference AI track
Computer Aided Design Journal (special issue on artificial intelligence)
Journal of Concurrent Engineering Research Association

1993 Computer Aided Architectural Design Futures '93

SERVICE TO THE DEPARTMENT, COLLEGE, AND UNIVERSITY

Carnegie Mellon University

University (2009-10) Provost's committee on Tenure and Promotion
School of Architecture, Associate Head (Fall 2008-present)
School of Architecture (Spring 2007-present) Computing Task Force
School of Architecture (Fall 2007, present) director, Graduate Program

University of Washington (1999-2004)

Architecture Department: Studio Computing Integration Committee (2003/4)

College of Architecture and Urban Planning: PhD Program Steering Committee; College Council (2003/4)

Department of Civil Engineering, Search Committee (2002/3)

Provost's Advisory Committee on UIF-3 proposals, January - June 2001
Member of a faculty and staff committee reviewing 27 pre-proposals and 8 proposals for University Initiative Funding, approximately $3.5M of permanent funding for innovative academic and administrative ventures.

Graduate School Representative on Doctoral Committees
Marsha Lynn Whitney, Bioengineering
Jr-Yi Shen, Mechanical Engineering

College Computing Committee September 1999 - June 2000
Faculty advisory committee to the Associate Dean for Research + Computing on computing resource planning and management.

College Doctoral Program Proposal Committee 2002
Faculty advisory committee to develop and propose doctoral committee for the College of Architecture and Urban Planning.

Department of Landscape Architecture
Search Committee (2 positions) January - June 2001
Reviewed applications and participated in 7 faculty visits for 2 faculty hires in Landscape Architecture.

Department of Architecture
Master of Science in Design Computing implementation committee 2001 - 2002
Administrative and academic preparation for initial class of MS students; negotiating budgets, hiring staff, writing program literature.

Committee on Tenure, Promotion, Merit, Retention – Sept. 1999 - June 2001
Faculty tenure and promotion reviews, review of faculty yearly activity reports and CVs for recommendation to the Chair for merit raises .

Computing Committee - September 1999 - June 2001
Committee advises Department Chair on computing resources management and planning.

Professional Advisory Committee (IT subcommittee) Sept. 2000 - June 2001

Co-author, proposal to establish a Master of Science in Architecture (design computing), submitted November 1999, approved July 2001.

Co-author, Design Education for the Future, a Tools for Transformation proposal (granted May, 2000).

University of Colorado (1990-1999)

University Instructional Computing Working Group, 1994-1999
University committee to oversee instructional computing across the Boulder campus, allocate student technology fee funds.

University Advanced Technology, Learning, And Society (ATLAS) Committee
Advise Associate Vice President for Technology on development of Advanced Technology, Learning, And Society (ATLAS) program. Subcommittee on Technology, Arts, & Media (1998-1999)

Boulder Faculty Assembly (1992-3)
Representative for the College of Environmental Design

College of Architecture and Planning (1992-99); College of Environmental Design (1990-92)
Faculty advisor, National Organization of Minority Architecture Students (NOMAS) - 1997-99. Assisted students in setting up brown bag lunch series. Helped students organize 1-day workshop on Architects for the Twenty-first Century: Race, Class, and Culture March 13,1999. Workshop included distinguished panelists from architecture, law, ethnic studies, and women studies.

Computer Committee 1990-1999
Developed computing resources for the 600 students and associated faculty members in the College of Architecture and Planning at the Boulder campus; supervised support and teaching staff, developed curriculum, and through university proposals secured funding for instructional computing resources (approximately $50,000 annually); planned the development of student 'plug-and-play' studio desktop Internet access.

Department of Planning and Design:
Author, Proposal for a Master of Science in Design Computing (approved April 1998).

Search Committee (1996)
Design Studio Head, Undergraduate Program; Search resulted in several ranked candidates, finalist hired as Associate Professor with tenure. (Architecture)

Search Committee (1994)
Assistant / Associate Professor Architecture, and Assistant / Associate Professor Planning (2 positions). Two candidates selected; one offer made and the candidate hired (Planning).

Search Committee (1992)
Assistant Professor, architectural design (search resulted in an offer, which was declined).

Task force on a Ph.D. in Design and Planning
Member of 3-person team drafting a Ph.D. program proposal (approved, July 1997).

IAN HALES

Instructor of Technology, Arts & Media
ATLAS Institute
University of Colorado
ATLAS Institute Room 231C
320 UCB
Boulder, CO 80309

Education

2012 Masters of Science, Advertising Management - University of Denver
Emphasis: Digital & Social Media Marketing
Awards and Honors: Dean's Scholarship Recipient, 2010 - 2012

2004 Bachelors of Arts, Studio Arts - University of Colorado at Boulder
Emphasis: Digital Media
Awards and Honors: Dean's List, 2003-2004

2003 Technology Arts and Media Certificate - University of Colorado at Boulder
Awards and Honors: Certificate completed with honors

Academic Positions

Instructor - ATLAS Institute, University of Colorado at Boulder
2004, 2007 – 2008, 2012 – Present

Lecturer - ATLAS Institute, University of Colorado at Boulder
2004 – 2012

Lecturer - National Center for Women and Information Technology,
Digital Currents Outreach Program,
University of Colorado at Boulder
2006 - 2009

Service Activities

University of Colorado, Boulder Campus
Faculty Student Mentor Program
Faculty Mentor
New student orientation representative
Parent orientation representative
Fall 2013 - Present

College of Engineering and Applied Sciences
The Colorado Engineer Magazine
Faculty Adviser / Design Consultant
Fall 2014 – Spring 2016

ATLAS Institute
Technology, Arts, & Media Website Developer & Administrator
Spring 2016 - Present

ATLAS Institute
Digital Media Boot Camp, Website Developer & Designer
Spring 2016 - Present

ATLAS Institute
Mixed Reality Lab Administrator
Fall 2016 - Present

ATLAS Institute
Technology, Arts, & Media Curriculum Steering Committee
Fall 2004 - Spring 2016

ATLAS Institute
Capstone Projects - Senior Thesis Project Exhibition Coordinator
Fall 2007 - Spring 2015

ATLAS Institute
New Faculty Mentor
Fall 2013 - Present

ATLAS Institute
Evening tech workshop advisor (Digital Painting)
Spring 2014 - Fall 2014

ATLAS Institute
Technology, Arts, & Media Social Media Manager
2010 - 2012

ATLAS Institute
M.S. Creative Technologies and Design Applicant Review Committee
Spring 2015 - Present

National Center for Women and Information Technology
Digital CUrrents / ATLAS Campos EPC Summer STEM Program - Curriculum Steering Committee
Summer 2006 – 2014

University of Colorado, Boulder Campus
Faculty Adviser, University of Colorado eSports Club
Spring 2016 – Present

University of Colorado, Boulder Campus
Faculty Adviser, University of Colorado Smash Bros. Club
Spring 2016 - Present

National Center for Women and Information Technology
Digital CUrrents Guest Lecturer
2011 & 2012

Kyffin Elementary School
Environmental Learning for the Future (ELF) Volunteer Instructor
2013 - Present

Teaching Activities

Spring 2017
ATLS 2200 - Web Lecture
ATLS 2200 - Web Lab
ATLS 2200 - Web Lab
ATLS 5519 - Streaming
ATLS 4900 - Independent Study, Marla Berstein
ATLS 5900 – Independent Study, Mitchell Wolfe
Undergraduate Honors Thesis Committee Member, Puttichai Kupadakvinij
Master's Thesis Committee Member, Emily Lin

Fall 2016
ATLS 2200 - Web Lab
ATLS 2200 - Web Lab
ATLS 3110 - Motion
ATLS 4900 - Independent Study, Charlie Humpal
CSCI 4900 - Independent Study, Monte Anderson
ATLS 5519 - Design Studio
ATLS 5900 - Independent Study, Megan Leahy

Summer 2016
NCTM 5001 - Digital Media Boot Camp
ATLS 2200 - Web
ATLS 4900 - Independent Study, Alexandra Grace Wilson

Spring 2016
ATLS 3110 - Motion Design
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 5519 - Design Studio
ATLS 4900 - Independent Study, Daniel Shanahan

Fall 2015
ATLS 2200 - Web
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4900 - Independent Study, Alli Moronni

Summer 2015
NCTM 5001 - Digital Media Boot Camp
ATLS 3010 - Digital Media 1

Spring 2015

ATLS 3519 - Fundamentals of Social Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4900 - Independent Study, Zach Ardente

Fall 2014

ATLS 3010 - Digital Media 1
ATLS 3010 - Digital Media 1
ATLS 3010 - Digital Media 1
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2014

NCTM 5001 - Digital Media Boot Camp
ATLS 3010 - Digital Media 1
ATLS 4900 - Independent Study, Megan Leahy
AC Summer STEM Program (Formerly Digital CUrrents)

Spring 2014

ATLS 3519 - Fundamentals of Social Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media

Fall 2013

ATLS 3010 - Digital Media 1
ATLS 3010 - Digital Media 1
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2013

NCTM 5001 - Digital Media Boot Camp
ATLS 3010 - Digital Media 1
Digital CUrrents - Summer Outreach Program

Spring 2013

ATLS 3519 - Fundamentals of Social Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4900 - Independent Study, Shelby Klein
Undergraduate Honors Thesis Committee Member, Stevie Schafer

Fall 2012

ATLS 3010 - Digital Media 1
ATLS 3010 - Digital Media 1
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2012

ATLS 3010 - Digital Media 1
ATLS 3020 - Digital Media 2

Spring 2012

ATLS 3110 - Motion Design
ATLS 4010 - Capstone Projects in Technology Arts and Media

Fall 2011

ATLS 3010 - Digital Media 1
ATLS 3010 - Digital Media 1
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2011

ATLS 3010 - Digital Media 1
ATLS 3020 - Digital Media 2

Spring 2011

ATLS 3110 - Motion Design
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media

Fall 2010

ATLS 3010 - Digital Media 1
ATLS 3010 - Digital Media 1
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2010

ATLS 3010 - Digital Media 1
ATLS 3020 - Digital Media 2

Spring 2010

ATLS 3010 - Digital Media 1
ATLS 3110 - Motion Design
ATLS 4010 - Capstone Projects in Technology Arts and Media

Fall 2009

ATLS 3010 - Digital Media 1
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2009

ATLS 3020 - Digital Media 2
Digital Currents

Spring 2009

ATLS 3110 - Motion Design
ATLS 4010 - Capstone Projects in Technology Arts and Media

Fall 2008

ATLS 3010 - Digital Media 1
ATLS 3020 - Digital Media 2
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2008

ATLS 3010 - Digital Media 1
Digital Currents

Spring 2008

ATLS 3010 - Intro Projects in Technology Arts and Media
ATLS 3110 - Motion Design

Fall 2007

ATLS 3010 - Intro Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media

Summer 2007

Digital Currents

Spring 2007

ATLS 3519 - Motion Design
ATLS 3519 - Exploring Virtual Societies

Fall 2006

ATLS 3010 - Intro Projects in Technology Arts and Media
ATLS 3519 - Motion Design

Summer 2006

Digital Currents

Spring 2006

ATLS 3010 - Intro Projects in Technology Arts and Media
ATLS 3519 - Motion Design

Fall 2005

ATLS 3010 - Intro Projects in Technology Arts and Media
ATLS 3519 - Motion Design

Spring 2005

ATLS 3519 - Motion Design
ATLS 2000 - Meaning of Information Technology,
Co-instructor with Professor Mark Winokur

Fall 2004

ATLS 3010 - Intro Projects in Technology Arts and Media
ATLS 4010 - Capstone Projects in Technology Arts and Media
JOUR 4871 - Online Project Management,
Faculty Assistant for Professor Bruce Henderson

Awards

Marinus Smith Award, 2014

ATLAS Institute Teaching Award, 2012

Professional Associations

American Marketing Association
2012 - Present

Arielle Hein

ariellehein.com | @coloringchaos

Education

2015 **Master of Professional Studies, Interactive Telecommunications Program**
New York University, Tisch School of the Arts (New York, NY)

2011 **Bachelor of Arts in Environmental Design, Minor in Technology, Arts and Media**
University of Colorado, College of Architecture & Urban Planning (Boulder, CO)

Teaching

2016-17 **Instructor, University of Colorado, ATLAS Institute (Boulder, CO)**
The Real Time Web (ATLS 3519), Spring 2016 - development of interactive web-based experiences.
Object (ATLS 3519), Spring 2016 - an introduction to physical computing and interaction design.
Senior Capstone (ATLS 4519), Spring 2016 - culminating projects course for TAM major students.
Object (ATLS 3519), Fall 2016 - an introduction to physical computing and interaction design.
Form (ATLS 3100) Fall 2016 - an introduction to 3d modeling and digital fabrication.
Web (ATLS 2200, two sections), Fall 2016 - an introduction to web design and development.

2016 **Lecturer, University of Colorado, Technology, Arts and Media Program (Boulder, CO)**
Object (ATLS 3519), Spring 2016 - an introduction to physical computing.
Web (ATLS 2200, two sections) Spring 2016- an introduction to web design and development.

2015 **Teaching Assistant, New York University, Computer Science Department (New York, NY)**
Introduction to Computational Media, Spring 2015

Workshops

Creative Javascript, BTU Lab, University of Colorado (Boulder, CO) - February 24, 2017

Documentation Day, University of Colorado (Boulder, CO) - February 10, 2017

Git / Github, TAM Workshop, University of Colorado (Boulder, CO) - October 24, 2016

Introduction to Python, TAM Workshop (co-taught), University of Colorado (Boulder, CO) - September 8, 2016

3D Making, ITP Camp, ITP New York University (New York, NY) - June 21, 2016

3D Paper Fab, ITP Camp, ITP New York University (New York, NY) - June 13, 2016

Intro to Eagle CAD, ITP Camp, ITP New York University (New York NYU) - June 9, 2016

P5JS, TAM Workshop, University of Colorado (Boulder, CO) - March 8, 2016

Git / Github, TAM Workshop, University of Colorado (Boulder, CO) - February 25, 2016

Fabricating with Fungus, ITP Camp, ITP New York University (New York, NY) - June 8, 2015

Fundamentals of Digital Design, ITP Camp, ITP New York University (New York, NY) - June 22, 2015

Stop-motion Animation, ITP Camp, ITP New York University (New York, NY) - June 24, 2015

Processing to After Effects, ITP Unconference, ITP New York University (New York, NY) - January 22, 2015

Professional Experience

2015-17 Coordinator - ITP Camp, New York University (New York, NY)

2010-16 Freelance Designer / Developer (New York City & Boulder, CO)

2015 Counselor, Leader - ITP Camp, New York University (New York, NY)

2014 Developer, Designer - Cavin-Morris Gallery (New York, NY)

2012-13 Designer & Print Production - The Big Red F (Boulder, CO)

2011 Graphic Designer - Sunflower Markets (Boulder, CO)

Projects

2016-17 Perceptions of Daylight (Boulder, CO) - exploring notions of time and connections daylight.

2015 Infinite Potentials, Samsung VR Lab (New York, NY) - immersive VR experience for Google Cardboard.

2014-15 Holojam (New York, NY) - collaborative VR drawing experience with NYU computer scientist Ken Perlin.

2015 Magic Mirror (New York, NY) - large scale interactive face-tracking installation for the Brookfield Mall.

2015 Luminance (New York, NY) - master thesis, interface design and data representation of daylight.

2015 Mycelial Forms (New York, NY) - material exploration of structural forms grown with fungus.

2015 No Free Lunch: Food & Climate Change (New York, NY) - conference planning and website design.

2014 Mirror Snaps (New York, NYU) - real-time live web Photo Booth built with javascript, node.js, and webrtc.

2014 Hive (New York, NY) - interactive spatial media installation built with Kinect and openFrameworks.

Group Exhibitions

2017 TEDxMileHigh, *Snaps.fun* and *The Daylight Clock* (Denver, CO) - July 7-8, 2017

2015 Samsung VR Lab, *Infinite Potentials* (New York, NY) - December 4, 2015

ITP Spring Show, *Luminance* (New York, NY) - May 17-18, 2015

ICFF, *Mycelial Forms* (New York, NY) - May 16-19, 2015

2014 ITP Winter Show, *MirrorSnaps* (New York, NY) - December 20-21, 2014

ITP Spring Show, *Hive* (New York, NY) - May 19-20, 2014

Webvisions NYC, *Fridgebot* (New York, NY) - April 3, 2014

2013 ITP Winter Show, *Fridgebot* (New York, NY) - December 15-16, 2013

Tools & Technologies

Creative Coding - P5.js, Processing, OpenFrameworks

Web Design & Development - Javascript, Jquery, Node.js, Express, webRTC, HTML, CSS,

Circuit Design & Rapid Prototyping - Arduino, Eagle CAD, Analog Circuits, PCB Fabrication, Wearable Electronics

Graphics - Adobe Creative Suite, Hand Drawing & Illustration

3D Modeling & Fabrication - Rhinoceros, Pepakura, Laser Cutting, 3D Printing, CNC, CAD/CAM

Video Production & Animation - Premiere, After Effects, DragonFrame, Projection Mapping (MadMapper)

Awards & Accomplishments

2015	Tisch GSO Grant Recipient, New York University
2014	Recipient of the Red Burns Scholarship, Tisch School of the Arts, New York University
2013-15	Recipient of the Lew Wasserman Scholarship, Tisch School of the Arts, New York University
2011	Graduated with High Honors | University of Colorado

Community Projects & Engagement

Ongoing	Contributor, P5.JS (New York, NY / Boulder, CO)
Ongoing	Mentor, ScriptED (New York, NY)
2014-15	La Casita Verde, Garden and Community Center (Brooklyn, NY)
2014-15	Youth Mentor for #HackItBack, The Lower East Side Girls Club (New York, NY)

Kevin Hoth
1561 S. Foothills Highway Unit F7
Boulder, CO 80305
303-803-7735
kevinhoth@gmail.com
Kevinhoth.com
kevinhothphotography.com

Curriculum Vitae

Education

1999 MFA, Photography. University of Washington. Seattle, WA
1994 BS, Art. University of Wisconsin. Madison, WI

Select Exhibitions (Photography unless otherwise noted)

Solo Shows

(2016) Postcards From El Camino Real. Wonder Press, Boulder, CO
(2016) Ice. 530 Gallery, 530 Santa Fe Drive, Denver, CO
(2015) Postcards From El Camino Real. Charleston Music Hall, Charleston, SC
(2013) Mobiles – Madelife, Boulder, CO
(2012) Emptiness and Presence - Steel Wool Gallery, Denver, CO
(2009) Recent Work - The Art Institute of Charleston, Charleston, SC
(2006) Animal Time - REDUX Contemporary Art Center, Charleston, SC
(2005) Piece, Out - Chase St. Warehouse, Athens, GA
(2000) Make Alias: Orange Man - The Grit, Athens, GA.

Two-Person Shows

(2009) Faculty Show - The Art Institute of Charleston, Charleston, SC
(2008) Recent Work - The Art Institute of Charleston, Charleston, SC
(1999) Las Afueras de Oaxaca (The Outskirts of Oaxaca) - The Photographic Center Northwest. Seattle, WA.

Group Shows

(2017) Members Juried Show. Houston Center for Photography. Juror: Rebecca Senf
(2017) Resist. Ello, Not For Print Issue No. 2. Ello.co/notforprint
(2017) Fraction Magazine: Issue 98. http://www.fractionmagazine.com/issue-98
(2017) Landscape 2017: Center for Fine Art Photography. Juror: Lisa Holpe
(2017) Flipside: An Alt Angle to Photo Processes. Art Students League of Denver. Denver, CO
(2016) Future Isms. Humble Arts Foundation. http://hafny.org/group-show-51-future-isms
(2016) Winter Pictures. Humble Arts Foundation. Hafny.org
(2015) Colab - Autos. Terratory Journal. http://www.terratory.org/collaboration/#/autos/
(2015) 100 Mile Radius Landscape Photography Competition. One of ten international finalists. http://www.100mileradius.info
(2012) iWorld - Colorado Photographic Art Center, Lakewood, CO
(2011) Month of Photography - Faculty Show, The Art Institute of Colorado, Denver, CO

(2011) CPAC 2011 Juried Show - Colorado Photographic Art Center, Denver, CO
(2011) Mid-Winter Digital Art Show - Boulder Digital Arts, Boulder, CO
(2010) Under The Influence - Faculty Show - Rocky Mountain College of Art and Design, Lakewood, CO
(2008) The Imagist - Rebekah Jacob Gallery, Charleston, SC
(2007) The Other Side - Robert Lange Studios, Charleston, SC
(2007) iShow - Modernisme Gallery, Charleston, SC
(2007) Reorientation II - REDUX Contemporary Art Center. Charleston, SC
(2007) The Changing Face of Charleston - City Gallery at Waterfront Park, Charleston, SC
(2005) HeadSpinning - Lyndon House Arts Center, Athens, GA. Group show of artwork made for music packaging with designer for music acts such as REM, Drive-by Truckers
(2005) Embedded: Living With Technology - ATHICA, Athens, GA. Interactive sound garment
(2005) SOUTHWorks Annual Juried Show - Oconee Cultural Arts Foundation, Watkinsville, GA. Merit Award
(2005) Bodies in Crisis - ATHICA, Athens, GA. Video piece
(2004) Regime Change V.4 - Virtual art at athica.org. online video piece Casualties of War
(2004) Tips on Running An Orderly Household: The Big Hole Under My House - RELATIVE: Photographing Domesticity ATHICA Gallery, Athens, GA. html piece
(2003) Shoreline Drift - Redux Studios, Charleston, SC. Video projections
(2003) 28th Annual Lyndon House Juried Exhibition - Lyndon House Arts Center, Athens, GA.
(2003) Product: Comments on Consumer Culture - ATHICA, Athens, GA. Digital audio piece

Video Screenings & Collaborations

Unfolding - Eye Level Art, Charleston, SC. Video / dance collaboration (2009)
w/ The Charleston Symphony Orchestra. Aaron Copland Opera. (2008)
The Gibbes Museum, Charleston, SC. (2007)
w/ Nomos String Trio - Halsey Institute for Contemporary Art, College of Charleston, Charleston, SC. (2007)
Handful Series - Canopy Studio, Athens, GA. Video piece for curated modern dance event (2005)
Cathode Ray Tube - Nuci's Space, Athens, GA. One-hour video score mixed live with Jazz/Rock quartet accompaniment (2005)
Butterfly Effect 3 - Seney-Stovall Chapel. Athens, GA. Collaborations with composers. (2004)
Athens Film Festival and Music Video Showcase - Athens, GA (2004)
Spoleto Festival USA - Charleston, SC. Shoreline Drift video screened (2004)
subMERGEd - Port City Center, Charleston, SC. Live Video Mixing Performance (2004)
Commandeering Spaces - City of Charleston, Charleston, SC. Video projection on downtown building (2004)
Once Twice Festival - The Johns Hopkins Digital Media Center, Johns Hopkins University. Baltimore, MD. (2004)
Bellevue Art Museum Film and Video Festival - Bellevue Art Museum, Bellevue, WA. Video The Body Photographs screened (1999)
The Butterfly Effect 2 - Seney-Stovall Chapel, Athens, GA. Video Projections for four new classical compositions performed live (2003)
Hyper-Caligari - LaGrange College, GA. Video for an electronic musical score by professor Mitch Turner (2003)
Crossover - Canopy Studio, Athens, GA. Video projections for a dance, visual, and music performance (2003)
Puzzle - School of Music, University of Georgia. Video projection piece for electronic musical score (2003)
Visceral: The Subjective Body - Looping BUTOH performance by WHITE CRANE STYLE at ATHICA (2003)
All Small - Eyedrum Gallery, Atlanta, GA. (2002)

New Season - Museum of New Art, Detroit, MI. Yard Work shown (2002)
The Butterfly Effect - Seney-Stovall Chapel, Athens, GA and Atlanta, GA. Two hour-long evenings of new classical composers performing alongside my original video work. (2002)
Looping BUTOH - Electric Performance Night, Eyedrum Gallery, Atlanta, GA. Collaborative performance as White Crane Style (2002)
Japancakes - Nuçi's Space. Athens, GA. 60-minute video projection for the band Japancakes (2001)
TOG - New Media Institute. Athens, GA. Video accompaniment to live webcast of Powerbook audio duo (2001)
New Music & Dance: Movement + Sound / Composition + Abstraction - Roger Dancz performance hall, School of Music, UGA, and Ballroom Studios, Atlanta, GA. (2001)
Film and Video Festival - Plan B Evolving Arts, Santa Fé, New Mexico. Video piece screened (2001)
TOG - X-ray Café, Athens, GA. Video Performance with laptop music duo (2001)
The Orng Drum - Eclectic Electric, Lyndon House Arts Center, Athens, GA. Self-produced video, movement and sound piece with live musical accompaniment (2001)

Performances

Pecha Kucha - Boulder Museum of Contemporary Art, Boulder, CO (2010)
Slideluck Potshow - Boulder Museum of Contemporary Art, Boulder, CO (2010)
Knee Jerk: A History - ATHICA, Athens, GA. Solo slideshow performance (2005)
Tips on Running An Orderly Household: The Big Hole Under My House - Solo slideshow performance for RELATIVE: Photographing Domesticity ATHICA Gallery, Athens, GA. (2004)
LANGUAGE HARM - Atlanta Poets Group at Eyedrum Gallery. Atlanta, GA. Solo performance with video (2004)
Tips on Running an Orderly Household (The Big Hole Under My House) - INFO DEMO #5, ArtSpot, Atlanta, GA. Solo slideshow performance (2003)
How to Get That Old-Timey Feeling - ATHICA, Athens, GA. Solo slideshow performance at ATHICA for the closing reception of Visceral: The Internal Body (2002)
My Acne - ATHICA, Athens, GA. Solo slideshow performance for Visceral: The Subjective Body (2002)
How to Talk to Small Children - ArtSpot, Atlanta, GA. Solo slideshow performance (2002)
How to Get That Old-timey Feeling - ArtSpot, Atlanta, GA. Solo slideshow performance (2002)
My Acne - Eyedrum, Atlanta, GA. Solo slideshow performance (2002)
Verge vs. The Orange Man - 10th Annual Mental Health Benefit. School of Music, University of Georgia. Athens, GA. Collaborative performance with modern dance company (2000)

Other Activities

(2017) Curator – Student Work from TAM for Month of Photography 2017. ATLAS Institute, University of Colorado, Boulder, CO
(2015) Curator, The End of Light exhibition. Month of Photography 2015 Show. Madelife, Boulder, CO
(2013) Guest Panel – Advanced Studio Arts Final Critique. Naropa University, Boulder, CO
(2013) Guest Portfolio Reviewer. American Institute of Student Architects. University of Colorado, Boulder, CO
(2012) Contributing Cinematographer - TINY: A Story About Living Small (http://tiny-themovie.com/) Documentary film, which premiered at SXSW in the spring of 2012 and has shown and continues to be shown at many film festivals across the country
(2010, 2011) Guest Artist – Visual Arts Department. Naropa University, Boulder, CO
(2008) Panelist, Creatives in the Commercial World, Think-Tech Conference, Trident Tech, North Charleston, SC
(2008) Judge, City Paper Annual Photography Contest
(2008) Guest Speaker, Alterman Studios, January
(2007) Guest Speaker for Visual and Computational Thinking, College of Charleston Art History

Department
(2007) Discussion Moderator and Panelist, iShow: You Are Where, Modernisme Gallery
(2006-2007) Board Member, REDUX Contemporary Art Center
(2006) Panelist, Contemporary Art & Business, REDUX Contemporary Art Center
(2006) Guest Speaker for Contemporary Art course, College of Charleston Art History Department
(2005) Panelist, Embedded: Living with Technology, ATHICA, Athens, GA.

Relevant Professional Experience

Instructor (August 2014 – Currently)
Technology, Arts & Media Program, ATLAS Institute, The University of Colorado, Boulder, CO. As full-time Faculty, I have developed and taught our new IMAGE curriculum (Photography and Digital Image making, critical evaluation, and theory) as we have become a Major (previously a Certificate and Minor program). I oversee three adjunct instructors and make sure they are following my curriculum as well as collaborating with me on tweaking course content. I also teach my course Alternative Digital Imaging and on occasion I teach TEXT (the history and practice of graphic design and typography).

Adjunct Lecturer (January 2011 – August 2014)
Technology, Arts & Media Program, ATLAS Institute, The University of Colorado, Boulder, CO. Teaching Digital Media 1 courses covering html, css, Dreamweaver, Photoshop, GarageBand, Final Cut Pro, and After Effects. I also teach Fundamentals of Digital Design (the history and practice of graphic design) and my new course Alternative Digital Imaging (a blend of analog and digital image making within an experimental context).

Freelance Photographer / Videographer (1999—Currently)
Self-employed freelance work in commercial photography, digital imaging, video production. kevinhoth.com

Photography Instructor (Fall semester 2011)
Photography 2/3/4 – Advanced Traditional Black and White Photography. Naropa University. Boulder, CO

Photography Faculty (June 2010 – May 2011)
Photography Dept., The Art Institute of Colorado, Denver, CO. Teaching Digital Photographic Illustration 2, Web Portfolio2, Principles of Digital Photography.

Adjunct Motion Design Instructor (May 2010 – August 2010)
Taught video editing with Final Cut Pro. Communications Design Dept., Rocky Mountain College of Art & Design, Lakewood, CO

Photography Faculty (April 2007—December 2009)
The Art Institute of Charleston, Charleston, SC. As adjunct professor, teach core courses in Photography and digital imaging, studio, lighting, and fine art photography. I was responsible for designing my own course outlines and syllabi, creating relevant class projects and writing and coordinating exams. During this time teaching I continued to do my own independent research including gallery exhibition and related freelance commercial work.

Daniel Leithinger

MIT Media Lab, 75 Amherst Street, E14-464C, Cambridge MA 02142 | 617.401.1872
daniell@media.mit.edu |leithinger.com

EDUCATION

Ph.D. Media Arts and Sciences, 2015 — Cambridge, MA
MIT Media Lab (Massachusetts Institute of Technology)
Graduate Research Assistant, Tangible Media Group
Research Advisor: Hiroshi Ishii
ENEL fellow 2010-2011, MIT Energy Fellow 2012-2013

M.Sc. Media Arts and Sciences, 2010
MIT Media Lab (Massachusetts Institute of Technology) — Cambridge, MA
Graduate Research Assistant at the MIT Media Lab, Tangible Media Group under advisor Hiroshi Ishii

M.Sc. Digital Media, 2007
Upper Austria University of Applied Sciences (FH Oberösterreich) — Hagenberg, Austria
Research Advisor: Michael Haller Graduated with highest distinction.

B.Sc. Media Technology and Design, 2005
Upper Austria University of Applied Sciences (FH Oberösterreich) — Hagenberg, Austria

PROFESSIONAL EXPERIENCE

Lumii (09/2015 – current) — Boston, MA
Chief Design Officer: Development of novel 3D design software and printing technology.

MIT Media Lab, Tangible Media Group (11/2016 – current) — Boston, MA
Research Affiliate

MIT Media Lab, Tangible Media Group (09/2008 – 08/2015) — Boston, MA
Graduate Research Assistant

Disney Research (06/2010 - 09/2010) — Pittsburgh PA
Research Intern: Development of novel human-computer interfaces.

National University of Singapore (11/2007 - 08/2008) — Singapore
Research Engineer: Design and development of future workspaces.

FH Oberösterreich Research & Development (08/2007 - 09/2007) — Hagenberg, Austria
Student Intern: Design and development of connected meeting rooms for: Office of Tomorrow.

HIT Laboratory NZ (02/2005 - 07/2005) — Christchurch, NZ
Student Intern: Development of interactive museum exhibit

Ars Electronica Futurelab (07/2004 - 09/2004) — Linz, Austria
Programmer: Development of interactive museum exhibit

MAVI International (06/2001 - 09/2002) — Schlierbach, Austria
Web Developer: Design and development of websites and multimedia CDs.

Holocaust Memorial Center (02/2000 - 03/2001) — Detroit, MI
Austrian Memorial Service: Support museum staff in the museum library.

AWARDS AND HONORS

2016 CHI: Best Paper Honorable Mention (Materiable)
2015 Mass Challenge Accelerator: Gold Award Startup (Lumii)
2015 A' Design Award (Transform)
2015 CHI: Golden Mouse Award (Transform)
2014 Red Dot Award: Design Concept (inFORM)
2014 Core 77 Design Awards: Interaction Student Winner (inFORM)
2014 IDEA Award: Bronze Winner (inFORM)
2014 Laval Virtual ReVolution Award: Winner (inFORM)
2013 CHI: Best Paper Honorable Mention (Sublimate)
2012 UIST: Best Paper Award (Jamming User Interfaces)
2011 UIST Student Innovation Contest: Winner Peoples Choice Award (Snail Interface)
2011 RTT Emerging Technology Contest: Winner (Recompose)
2010 Siggraph Research Challenge: Second Place (Relief)
2008 RTT Emerging Technology Contest: Winner (City Planning Space)
2007 Laval Virtual ReVolution Award: Winner (SDS)
2006 Europrix Top Talent Award: Nominee Content Tools & Interface Design (SDS)
2005 Austrian State Prize for Multimedia & e-Business: Jury Award (Coeno)
2005 Europrix Top Talent Award: Winner Content Tools & Interface Design (Coneo)
2005 Austrian State Prize for Multimedia & e-Business: Overall Winner (Gullivers World)
2005 World Summit Award 2005: Best of in e-Entertainment (Gullivers World)

TEACHING EXPERIENCE

MIT Media Lab

Instructor
Hacking the Holodeck (IAP January 2016)
Media Lab India Workshop, PESIT Bangalore, India (January 2013)

Teaching Assistant
"Tangible Interfaces" (Fall 2012, Fall 2011)
"New Paradigms for HCI" (Spring 2009)

Upper Austria University of Applied Sciences / FH Hagenberg

Instructor
Tangible User Interface Workshop with .NET Gadgeteer (May 2013)

Teaching Assistant, Digital Media Department
"Computer Graphics" (Spring 2006)
"Digital Media Technologies" (Spring 2008)

ACM CHI Conference on Human Factors in Computing Systems

Conference Workshop Organizer
Displays Take New Shape: An Agenda for Future Interactive Surfaces (April 2013)

ACM International Conference on Interactive Tabletops and Surfaces (ITS)

Conference Workshop Organizer
Beyond Flat Displays: Towards Shaped and Deformable Interactive Surfaces (November 2012)

ACADEMIC LEADERSHIP AND SERVICE

Volunteer:

2014 Student Volunteer Chair UIST (27TH ACM User Interface Software and Technology Symposium, Honolulu, Hawaii)
2012 Demo Chair ITS (ACM International Conference on Interactive Tabletops and Surfaces 2012)

2012 Demo Chair Ubicomp (14th ACM International Conference on Ubiquitous Computing, Pittsburgh, Pennsylvania, United States)
2010 Student Volunteer Chair TEI (Fourth ACM International Conference on Tangible, Embedded and Embodied Interaction, Cambridge, MA

Reviewer for Conferences and Journals:

ACM CHI Conference on Human Factors in Computing Systems
ACM Symposium on User Interface Software and Technology
ACM International Joint Conference on Pervasive and Ubiquitous Computing
ACM International Conference on Tangible, Embedded and Embodied Interaction
ACM International Conference on Interactive Tabletops and Surfaces
ACM SIGCHI Conference on Designing Interactive Systems
ACM SIGGRAPH Conference
ACM Transactions on Computer-Human Interaction
IEEE Pervasive Computing Journal

PUBLICATIONS

Ken Nakagaki, Luke Vink, Jared Counts, Daniel Windham, Daniel Leithinger, Sean Follmer, and Hiroshi Ishii. 2016. Materiable: Rendering Dynamic Material Properties in Response to Direct Physical Touch with Shape Changing Interfaces. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (CHI '16). (Best Paper Honorable Mention)

Daniel Leithinger, Sean Follmer, Alex Olwal and Hiroshi Ishii, "Shape Displays: Spatial Interaction with Dynamic Physical Form," in *IEEE Computer Graphics and Applications*, vol. 35, no. 5, pp. 5-11, Sept.-Oct. 2015.

Philipp Schoessler, Daniel Windham, Daniel Leithinger, Sean Follmer, and Hiroshi Ishii. 2015. Kinetic Blocks: Actuated Constructive Assembly for Interaction and Display. In *Proceedings of the 28th Annual ACM Symposium on User Interface Software & Technology* (UIST '15). ACM, New York, NY, USA, 341-349.

Hiroshi Ishii, Daniel Leithinger, Sean Follmer, Amit Zoran, Philipp Schoessler, and Jared Counts. 2015. TRANSFORM: Embodiment of "Radical Atoms" at Milano Design Week. In *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '15).

Daniel Leithinger, Sean Follmer, Alex Olwal, and Hiroshi Ishii. 2014. Physical Telepresence: Shape Capture and Display for Embodied, Computer-mediated Remote Collaboration. In *Proceedings of the 27th annual ACM symposium on User interface software and technology* (UIST '14). ACM, New York, NY, USA

Sean Follmer, Daniel Leithinger, Alex Olwal, Akimitsu Hogge, and Hiroshi Ishii. 2013. inFORM: dynamic physical affordances and constraints through shape and object actuation. In *Proceedings of the 26th annual ACM symposium on User interface software and technology* (UIST '13). ACM, New York, NY, USA, 417-426.

Daniel Leithinger, Sean Follmer, Alex Olwal, Samuel Luescher, Akimitsu Hogge, Jinha Lee, and Hiroshi Ishii. 2013. Sublimate: state-changing virtual and physical rendering to augment interaction with shape displays. In *Proceedings of the 2013 ACM annual conference on Human factors in computing systems* (CHI '13). ACM, New York, NY, USA, 1441-1450. (Best Paper Honorable Mention)

Sean Follmer, Daniel Leithinger, Alex Olwal, Nadia Cheng, and Hiroshi Ishii. 2012. Jamming user interfaces: programmable particle stiffness and sensing for malleable and shape-changing devices. In *Proceedings of the 25th annual ACM symposium on User interface software and technology* (UIST '12). ACM, New York, NY, USA, 519-528. (Best Paper)

Daniel Leithinger, David Lakatos, Anthony DeVincenzi, Matthew Blackshaw, and Hiroshi Ishii. 2011. Direct and Gestural Interaction with Relief: a 2.5D Shape Display. In *Proceedings of the 24th annual ACM symposium on User interface software and technology* (UIST '11). ACM, New York, NY, USA, 541-548.

Daniel Leithinger and Hiroshi Ishii. 2010. Relief: a scalable actuated shape display. In *Proceedings of the fourth international conference on Tangible, embedded, and embodied interaction* (TEI '10). ACM, New York, NY, USA, 221-222.

Jamie Zigelbaum, Alan Browning, Daniel Leithinger, Olivier Bau, and Hiroshi Ishii. 2010. g-stalt: a chirocentric, spatiotemporal, and telekinetic gestural interface. In *Proceedings of the fourth international conference on Tangible, embedded, and embodied interaction* (TEI '10). ACM, New York, NY, USA, 261-264.

John Kestner, Daniel Leithinger, Jaekyung Jung, and Michelle Petersen. 2009. Proverbial wallet: tangible interface for financial awareness. In *Proceedings of the 3rd International Conference on Tangible and Embedded Interaction* (TEI '09). ACM, New York, NY, USA, 55-56.

Daniel Leithinger, Michael Haller, "Improving Menu Interaction for Cluttered Tabletop Setups with User-Drawn Path Menus," in *Horizontal Interactive Human-Computer Systems, International Workshop* on, pp. 121-128, Second Annual IEEE International Workshop on Horizontal Interactive Human-Computer Systems (TABLETOP'07), 2007

Michael Haller, Peter Brandl, Daniel Leithinger, Jakob Leitner, Thomas Seifried, and Mark Billinghurst. 2006. Shared design space: sketching ideas using digital pens and a large augmented tabletop setup. In *Proceedings of the 16th international conference on Advances in Artificial Reality and Tele-Existence* (ICAT'06), Zhigeng Pan, Adrian Cheok, Michael Haller, Rynson H. Lau, and Hideo Saito (Eds.). Springer-Verlag, Berlin, Heidelberg, 185-196.

Michael Haller, Mark Billinghurst, Daniel Leithinger, Jakob Leitner, and Thomas Seifried. 2005. Coeno: enhancing face-to-face collaboration. In *Proceedings of the 2005 international conference on Augmented tele-existence* (ICAT '05). ACM, New York, NY, USA, 40-47.

PATENTS

Sean Follmer, Daniel Leithinger, Hiroshi Ishii, Alex Olwal. 2013. Methods and Apparatus for Jammable HCI Interfaces. US9298264

Daniel Leithinger, David Lakatos, Anthony DeVincenzi, Matthew Blackshaw, Hiroshi Ishii. 2012. Methods and apparatus for actuated 3D surface with gestural interactivity. US9298264

Philip Jackson, Ivan Poupyrev, Daniel Leithinger, Leonid Sigal. 2011. Elastomeric Input Device. US8823639

REFERENCES

Hiroshi Ishii, Jerome B. Wiesner Professor of Media Arts and Sciences, MIT Media Lab
MIT Media Lab, 75 Amherst Street, E14, Cambridge, MA 02139
Email: ishii@media.mit.edu Tel: +1 617 497 2050

Michael Haller, Professor of Interactive Media, Upper Austria University of Applied Sciences
FH Hagenberg, Softwarepark 11, 4232 Hagenberg/Austria
Email: haller@fh-hagenberg.at Tel.: +43 5 0804 20

Ivan Popyrev PhD, Technical Program Lead, Google ATAP
1600 Amphitheatre Pkwy, Mountain View, CA 94043
Email: hello@ivanpoupyrev.com Tel: +1 412 888 6950

Mark Billinghurst, Professor of Human Computer Interaction, University of South Australia
School of Information Technology and Mathematical Sciences, Mawson Lakes Campus (D2-34)
Email: Mark.Billinghurst@unisa.edu.au Tel: +61 8 830 23747

Mustafa Naseem

ICTD Expert in Residence
ATLAS Institute, University of Colorado Boulder
Boulder, CO 80302

Office: (303)-735-6293
email: mustafa.naseem@colorado.edu

Mustafa Naseem is a Pakistani educator, researcher and social entrepreneur, who thrives on tackling big challenges head-on. Mustafa currently serves as the ICTD Expert in Residence, at the ATLAS Institute, University of Colorado Boulder, where he teaches graduate courses and helps runs the Master's track in ICT for Development. Prior to ATLAS, Mustafa was the Director of the Innovations for Poverty Alleviation Lab (IPAL) at the Information Technology University (ITU) Lahore, where he led a team of 20 young engineers and social scientists to create ICT interventions to help improve service delivery in Maternal and Child Health (MCH) and Water and Sanitation Sectors (WASH). Mustafa is also the co-founder of two startups – Sensen (based in the US), and Zimba Water (based in India) and the co-founder for Makeistan, Pakistan's first makerspace. Mustafa has taught design and ICTD courses in 6 countries (and traveled to 22), and brings years of experience in academia, industry and entrepreneurship in many different parts of the world.

Education

CORe	Business Analytics	HBX, Harvard Business School	2015
M.S.	ICTD	University of Colorado Boulder	2013
Grad Cert	Science & Tech Policy	University of Colorado Boulder	2013
B.Eng.	Electrical Engineering	National University of Sciences and Technology (NUST)	2010

Academic Experience

- *ICTD Expert in Residence,* ATLAS Institute, University of Colorado Boulder (09/16 – Present)
- *Consultant*, New York University Abu Dhabi (05/17 – 08/17)
- *Co-Founder*, Makeistan, Information Technology University (09/15 – 08/16)
- *Director* Innovations for Poverty Alleviation Lab (IPAL), Information Technology University (09/13 – 08/16)
- *Technical Lead,* MIT Global Startup Lab, WITS University (04/13 – 07/13)
- *Instructor/Lead-Instructor,* International Development Design Summit (IDDS), MIT D-Lab (03/14 – Present)

Non Academic Experience

- *Co-Founder,* Sensen Inc. (09/14 – 09/16)
- *Spring Fellow,* Internet and Technology Policy, Verizon Inc. (01/13 – 04/13)
- *Hatfield Scholar of Public Service,* Accessibility & Innovations Initiative, Federal Communications Commission (06/12 – 08/12)
- *Director of Technology,* Deming Center Venture Fund, University of Colorado Boulder (01/12 – 04/13)
- *Co-Founder* Zimba Water Inc. (07/10 – 07/13)

Research Interests & Statement

Research Interests:	*Information and Communication Technology for Development (ICTD) & Human Computer Interaction for Development (HCI4D)*
Key Sectors:	*Maternal and Child Health (MCH)*, *Water and Sanitation (WASH)*, and Humanitarian Innovation
Key Technologies:	*Mobile Application Development, Internet of Things (IoT)*, *Speech and Language Technologies 4 Development (SLT4D)* & Data Science (nascent interest)

I have an interdisciplinary research interest using interventionist approaches in the use of Information and Communication Technology and Development (ICTD) to improve service delivery in low and middle income countries (LMICs). My areas of focus have been Maternal and Child Health (MCH), and Water and Sanitation (WASH). I have raised upwards of $750,000 in research funding as PI, and have $1.5 Million in research funding applications (as PI or Co-PI) currently under review. Technologies that my lab have developed have been used to pilot interventions with over 20,000 beneficiaries and are being scaled up to 4 Million children in Punjab, Pakistan next year. I have recently started working more in the Agriculture and Humanitarian Innovation sectors, where my

collaborators at MIT and OSU and I submitted a $4 Million NSF PIRE full proposal to create makerspaces and conduct creative capacity building (CCB) workshops in refugee camps in Colombia, Lebanon and Uganda. We also have a $1 Million proposal under review at the USAID's Feed the Future Program to create agronomic sufficiency and physical access indices at the village level in Malawi and Uganda, using call detail records (CDRs) and publicly available satellite imagery. My career has focused on prioritizing creating impact over publications.

Awards, Funding, and Other Support

AWD-17-01-0114 Naseem (PI) $374,598 07/01/17 – 06/31/20
Pakistan-US Science and Technology Cooperation Program, NAS & USAID
The goal of this study is to design water quality sensors and dispensing units that can be attached to community-run Water Filtration Plants funded by the Government of Punjab. The grant funds research on sensor design, user-interface and experience design, and business model generation.

Innovation Fund, UNICEF Naseem (Co-PI) $100,000 11/11/16 – 11/10/17
Open Source Technology Solutions, UNICEF
The goal of this project is design a speech-based platform that allows low-literate, low-income men communicate to doctors and exchange experiences among them around Maternal and Child Health (MNCH). The grant funds the design, testing and deployment of this service, alongside scalability solutions.

Young Laureate Award Finalist Naseem 10/18/16
Rolex Awards for Enterprise
Named among 12 finalists for the Rolex Young Laureate Award for Enterprise for the year 2016 for the Water ATM project – an initiative to enable organizations to measure water quality and access in Pakistan and elsewhere.

District Delivery Challenge Fund Naseem (PI) UK £250,000 06/01/15 – 02/01/17
Sub-National Governance Program (SNG), DFID
This grant supported the design, development, and deployment of an Immunization Information System (IIS) that allowed for digital record creation of routine vaccinations in the field, and reminder notification to parents through SMS and robocalls. The 7-month pilot was deployed in two districts of Punjab with 17,000 children vaccinated by 50 state-appointed vaccinators. The government is now scaling up the intervention to the entire province, with 4 Million children being immunized every year.

IDIN Summit Grant Naseem (PI) $30,000 09/01/16 – 02/15/16
International Development Innovation Network (IDIN), MIT D-Lab
This grant supported organizing an International Development Design Summit (IDDS) in Lahore, Pakistan where 40 participants and organizers from 15 different countries took part in creating 6 different Information and Communication Technologies (ICTs) in the sectors of health, education, agriculture and income generation. The grant supported co-design curriculum development and dissemination focused on ICT technologies.

IDIN Microgrant & Sustainability Grant Naseem (PI) $7,000 11/15/14 – 05/15/15
International Development Innovation Network (IDIN), MIT D-Lab
This microgrant supported the creation of a Water Dispensing unit that authenticated users, dispensed accurate amount of drinking water, and updated the centralized database. Two units were deployed in schools on the outskirts of Kathmandu, Nepal. The sustainability grant supported the creation and delivery of curriculum at Makeistan, Pakistan's first makerspace, including robotics workshops to 64 primary school students, and to 15 high school students from the SOS orphanage.

Hatfield Scholar in Public Service Award Naseem (PI) $3,500 06/04/12 – 08/10/12
Silicon Flatirons, University of Colorado Boulder
Among 4 recipients from the entire graduate school awarded of the Hatfield DC Scholar in Public Service Award. The award was used to work at the Accessibility and Innovations Initiative, Federal Communications Commission (FCC), Washington, DC

ATLAS Directors Fellowship Naseem (PI) $10,000 08/14/11 – 05/10/13

ATLAS Institute, University of Colorado Boulder
Awarded the $10K ATLAS Directors Fellowship for the 2011-13 cohort. The fellowship was used towards tuition for the Masters program in ICTD.

Fulbright Foreign Student Scholarship Naseem (PI) $98,000 08/14/11 – 05/10/13
Department of State, United States Government
Selected for the coveted Fulbright Scholarship for the Masters program in ICTD at the ATLAS Institute, University of Colorado Boulder.

Publications and Scholarly Work

Publications (refereed)

- Iqbal, M., Shahid, S., **Naseem, M.,** "Interactive Urdu Braille Learning System for Parents of Visually Impaired Students", ASSETS '17 Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (WCRE'05), Baltimore, MD, Oct 20 - Nov 01, 2017, pp. 327-328.
- Shazad, U., Murtaza, A., **Naseem, M.,** "Role of Academic Makerspaces in Creating Social Impact," in Proceedings of the 2nd International Symposium on Academic Makerspaces (ISAM 2017), Cleveland, OH, Sep. 24, 2014.
- St-Onge Ahmad, S., **Naseem, M.**, Raza, A. A. (2017). Maternal Awareness for Low-Literate Expecting Parents via Voice-Based Telephone Services, In Development Consortium: HCI Across Borders and Proceedings of the 2017 ACM SIGCHI Conference on Human Factors in Computing Systems.
- Kharal, A., **Naseem, M.**, St-Onge Ahmad, S., Raza, A. A. (2017). Sustainable IVR-Based Social Media for the Developing World, In Development Consortium: HCI Across Borders and Proceedings of the 2017 ACM SIGCHI Conference on Human Factors in Computing Systems.
- Razaq, S., Batool, A., Ali, U., Khalid, M., Saif, U., and **Naseem, M.,** "Iterative Design of an Immunization Information System in Pakistan," in Proceedings of the 7th Annual Symposium on Computing for Development (ACM DEV '16), Nairobi, Kenya — November 18 - 20, 2016
- Batool, A., Asghar, A., Tariq, T., Badar, M., Shahzad, I., Anwar, U., and **Naseem, M.,** "Design Methods to Reduce Technology Fear and Solicit Feedback from Lady Health Workers (LHWs) in Pakistan," in Proceedings of the 7th Annual Symposium on Computing for Development (ACM DEV '16), Nairobi, Kenya — November 18 - 20, 2016
- Rashid, R., **Naseem, M.**, Waqar, Y., "POSTER: Testing the efficacy of an SMS-based tutoring system," in Proceedings of the International Conference on Mobile Systems, Applications, and Services (MobiSys '16) (Companion Volume) 2016: 52
- Batool, A., Ali, U., Razaq, S., and **Naseem, M.,** "Child Immunization Health Card Redesign: an Iterative, User-Centered Approach," in Proceedings of the Eighth International Conference on Information and Communication Technologies and Development (ICTD '16), Ann Arbor, MI, USA — June 03 - 06, 2016: 50
- Muneeb, S., **Naseem, M.,** and Shahid. S., "A Usability Study of an Assistive Touch Voice Interface based Automated Teller Machine (ATM)," in Proceedings of the 2015 Annual Symposium on Computing for Development (ACM DEV '15), London, United Kingdom — December 01 - 02, 2015, pp. 114 -115.
- Mubin, O., Tubb, J., Novoa, M., **Naseem, M.,** & Razaq, S., "Understanding the Needs of Pakistani Farmers and the Prospects of an ICT Intervention," in Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI '15), pp. 1109 – 1114.

Presentations at Conferences, Symposia, and Workshops

- Naseem, M., Shahid, S., Maria, K., Ahmed, S., Open Session titled "Co-Design for Accessibility," at the Ninth International Conference on Information and Communication Technologies and Development (ICTD '16), Lahore, Pakistan — November 16 - 19, 2017
- Panel conversation at the Ninth International Conference on Information and Communication Technologies and Development (ICTD '16), titled "Developing Research Capacity in ICTD," Lahore, Pakistan — November 16 - 19, 2017
- Panel Conversation at the 7th Annual Symposium on Computing for Development, 2016 ACM titled "Research, Practice, and Entrepreneurship in ICTD" (Nov '16)
- Plenary Panel Conversation at MIT TechCon 2016 titled "What Is Innovation, and How Do We Move from Idea to Impact?", moderated by Scott Kersner – Boston Globe (Nov '16)

- Panel Conversation at MIT TechCon 2016 titled "MakerFabInnoLabSpaceCenters-and-you, The why and how of creative community space engagement for your institution" (Nov '16)
- Invited talk at the University of Washington Change Seminar titled: "Make-i-stan: A hub for interdisciplinary collaboration and engagement in critical thinking" (October '16)
- Invited talk at the Oregon State University's Humanitarian Engineering Program titled, "Har Zindagi: Using Information and Communications Technology (ICT) to Improve Healthcare in Pakistan" (Oct '16)
- Panel discussion at International Telecommunication Union's World Telecom/ICT Indicators Summit (WTIS 15), titled "Emerging trends: Internet of Things (IoT) and mobile applications as a growing source of development data" (Dec '15)
- Invited talk at MIT's Comprehensive Initiative on Technology Evaluation (CITE), titled "Designing & Evaluating Technological Solutions to Improve Governance in Punjab" (Nov '15)
- Invited keynote at the Global Citizenship Conference at Zheijang University China, titled "Creating change makers: Encouraging students to dream again" (Sep '15)
- Lead a Tech4Sustanability workshop at the Global Citizenship Conference, sponsored by the Melton Foundation (Sep '15)
- Invited talk at the Center for Internet and Human Rights (CIHR), European University Viadrina titled "Innovations within government? Using Punjab's model of m-governance to understand public sector innovation" (May '15)
- Fireside chat at Re:publica '15 conference titled "Innovation, Internet Access and Dengue Fever: Looking at Pakistan's Complex Digital Communications Landscape" (May '15)
- Invited as participant at the Global Innovation Gathering (GIG) Workshop in Berlin to present about IPAL (May '15)
- Selected by the National Academy of Sciences to attend Entrepreneurship Workshop for Scientists and Engineers (Apr '14)

Institutional and Professional Activities

- Reviewer, SIGCHI 2018 (10/17)
- *Co-Lead Instructor*, IDDS Botswana 2018 (10/16 – Present)
- *Member*, Search Committee, Tenure-Track Faculty Position in Engineering for Developing Communities, University of Colorado Boulder (09/16 – Present)
- *Member,* Graduate Committee, ATLAS Institute, University of Colorado Boulder (08/16 – Present)
- *Member,* CompEd Committee, ATLAS Institute, University of Colorado Boulder (09/16 – Present)
- Lead Organizer, Pakistan ICTD Workshop 2014 (10/13 – 03/14)
- Member, Graduate Admissions Committee, Information Technology University (10/13 – 08/16)

Teaching

My teaching philosophy is premised on experiential learning, case-based methods and flipped-classroom methodologies. I believe students learn better when they are able to experience the challenges they are trying to solve, or learn by doing. Such classes not only create memorable learning experiences, but also help build skills that go beyond the classroom. I've taught in diverse academic settings, from teaching in a church on the edge of the Kalahari Desert in Botswana for 3 weeks to teaching an executive learning workshop to senior public servants in Pakistan. While I've taught large undergraduate classes (60+ students), I personally prefer to teach studio based or seminar based classes.

Teaching Experience (Semester Long Courses)

Course Title	Terms/Dates	Institution
ATLS 5240: ICTD Lab	08/28/17 – 12/20/17	ATLAS, University of Colorado Boulder
ATLS 5230: Case Studies in ICTD	08/28/17 – 12/20/17	ATLAS, University of Colorado Boulder
ATLS 6910: Information and Communication Technology for Development Practicum	08/28/17 – 12/20/17	ATLAS, University of Colorado Boulder
ATLS 5250: Fieldwork Methods for ICTD Practitioners	01/17/17 – 05/11/17	ATLAS, University of Colorado Boulder

ATLS 6910: Information and Communication Technology for Development Practicum	01/17/17 – 05/11/17	ATLAS, University of Colorado Boulder
ATLS 5230: Case Studies in ICTD	08/22/16 – 12/15/16	ATLAS, University of Colorado Boulder
EE367: D-Lab (Digital Health Technologies)	03/07/16 – 06/24/16	EE, Information Technology University
CS568: D-Lab II (Design for Scale)	03/07/15 – 03/24/15	CS, Information Technology University
CS567: D-Lab I (Development)	10/10/14 – 02/10/15	CS, Information Technology University
CS 568: D-Lab II (Design for Scale)	03/07/14 – 03/07/14	CS, Information Technology University

Other Teaching Experience

Course Title	Terms/Dates	Institution
MIT Practical Impact Alliance – Participatory Design Online Course	09/25/17 – 09/28/17	MIT D-Lab (Online), Boston, MA
International Development Design Summit (Botswana)	06/25/16 – 07/23/16	D'kar Innovation Center, D'kar, Botswana
International Development Design Summit (Pakistan)	01/08/16 – 01/22/16	Information Technology University, Lahore, Pakistan
International Development Design Summit (Botswana)	08/02/15 – 08/15/15	D'kar Innovation Center, D'kar, Botswana
International Development Design Summit (Tanzania)	07/1/14 – 07/31/14	VETA, Arusha, Tanzania
Evidence Based m-Governance, National Management Course (NMC)	03/07/14	National School of Public Policy (NSPP), Lahore, Pakistan
Use of IT for Effective Policy Implementation & Service Delivery, Senior Management Course (SMC)	03/10/14 – 03/11/14	National School of Public Policy (NSPP), Lahore, Pakistan
m-Governance: Data Driven Decision Making, Mid Career Management Course (MCMC)	02/10-14 – 02/11/14	National School of Public Policy (NSPP), Lahore, Pakistan
MIT Global Startup Labs (South Africa)	06/17/13 – 07/26/13	WITS University, Johannesburg, South Africa
International Development Design Summit (Ghana)	07/06/11 – 08/08/11	KNUST, Kumasi, Ghana

Aileen Jaitin Pierce

4393 30th St., Boulder, Colorado 80301, (303) 588-5503, aileenjpierce@gmail.com

EXPERIENCE:

Teaching:
I teach web and mobile app development classes to high-achieving college students from varied backgrounds. I also taught Math classes to college students and introductory computer classes to elementary and middle school girls. Teaching experience includes:

- Created and taught Mobile Application Development courses in the ATLAS Institute which introduce students to the iOS and Android platforms and developing mobile applications. This includes working with the iOS and Android Software Developer Kits, Object-Oriented programming, Objective-C, Swift, Java, and human interface design principles. This is an upper level course series that includes undergraduate, graduate, and doctoral students.
- Created and taught Web Front-End Development for the Technology, Arts, and Media program which introduces students to the development of interactive web applications. This includes the concepts of problem abstraction, algorithm development, object-oriented programming, and debugging techniques, along with the languages JavaScript, PHP, and MySQL. I also teach Meaning of Information Technology, and the senior Capstone course in the TAM program.
- At the Metropolitan State College of Denver I taught an introductory course that covered computer basics, the Internet, Email, and the World Wide Web, including fundamentals of web site creation.
- At Front Range Community College I taught a pre-algebra course that covered whole numbers, fractions, decimals, percents, proportions, ratios, measurements, operations with signed numbers, and solutions of simple algebraic equations.
- Sponsored by the YWCA of Boulder County I developed and taught the Wired Girls class at the I Have a Dream Foundation and Casey Middle School. The class covered computer basics, Microsoft Word, the World Wide Web, and how to create a web site using Microsoft FrontPage.
- Developed and taught application training classes for support and sales representatives, consultants, and customers.

Product Marketing:
I worked in software product marketing for four years in roles of gradually increasing responsibility. Duties included:

- Responsible for entire product lifecycles: Identified target markets; defined product requirements; wrote product collateral, market research papers, and competitive analyses; and worked with sales team to determine pricing and special promotions.
- Successfully shipped five products on multiple platforms.
- Created and delivered presentations in Microsoft PowerPoint to perspective customers and the press.
- Owned strategic marketing partnerships with Microsoft, Netscape, Adobe and Macromedia, including product integration and joint marketing events.
- Served as press spokesperson and managed press tour with CEO and senior executives.
- Responsible for product and technical information on the external web site.
- Managed five people in the areas of marketing, documentation, and web administration.

Technical Support:
I worked in Oracle technical support for four years, starting as a support analyst and working my way up to a managerial position. Duties included:

- Defined and implemented a new Oracle Gold Support Service offering.
- Managed twenty-one analysts in the RDBMS, Language, and Gold support groups.
- Hired fifty analysts over a nine-month period to provide a high level of customer support.

- Reduced outstanding call backlog from 350 to fewer than 100 in five months, while improving customer satisfaction.
- Provided telephone support for Oracle's customers and employees on Oracle's financial applications and RDBMS, from the installation through production phases.
- Handled client escalations.
- Resolved critical issues for Oracle New Zealand as the Support Country Manager.

COMPUTER EXPERIENCE:

Operating Systems: iOS, OS/X, Windows, Unix
Languages: Swift, JavaScript, PHP, Objective-C, Java, HTML, CSS, C, SQL, LISP, Pascal
Applications: Adobe Creative Suite, Xcode, Android Studio, MySQL

EMPLOYMENT HISTORY:

University of Colorado at Boulder, Boulder, Colorado
Associate Director, Technology, Arts, and Media program, ATLAS Institute, 5/16 to present
Senior Instructor, Technology, Arts, and Media program, ATLAS Institute, 5/16 to present
Instructor, Technology, Arts, and Media program, ATLAS Institute, 8/04 to 5/16

Metropolitan State College of Denver, Denver, Colorado
Computer Science Instructor, 1/04 to 5/04

Front Range Community College, Longmont, Colorado
Mathematics Instructor, 1/04 to 7/04

YWCA Wired Girls Program, Boulder, Colorado
Wired Girls Instructor, 10/02 to 7/04

FirstFloor Software, Mountain View, California
Director, Product Marketing, 9/96 to 12/98

VDOnet Corp, Palo Alto, California
Product Marketing Manager, 1/96 to 8/96

Oracle Corporation, Redwood Shores, California
Product Management, Internet Products, 1/95 to 1/96
Worldwide Customer Support, 6/90 to 12/94

VOLUNTEER EXPERIENCE:

High Peaks Elementary, Boulder, Colorado, Webmaster, 8/07 to 5/11
Girl Scouts, Boulder, Colorado, Troop Leader 1/07 to 5/10
Boulder County Safehouse, Boulder, Colorado, Board Member 6/04 to 6/07
Women's Foundation of Colorado, Denver, Colorado, 10/02 to 10/03
Sexual Assault Nurse Examiner (SANE) Program, Boulder, Colorado, 3/01 to 9/01
Mary Keenan for Boulder County District Attorney, Boulder, Colorado, 3/00 to 11/00

PERSONAL: Full-time Mother, 1/99 to 12/03

EDUCATION:

Carnegie Mellon University, Pittsburgh, Pennsylvania
B.S. in Mathematics and Computer Science, May 1990

University of Colorado at Boulder, Continuing Education, Boulder, Colorado
Took courses in Women's Studies and Environmental Studies, 2000-2001

CV

David Schaal
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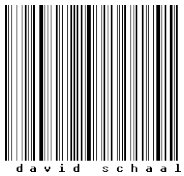

Professional Experience

Lead Multimedia Instructor (1998-Present)
Technology Arts Media Program
ATLAS Institute (Alliance for Technology, Learning and Society)
College of Engineering and Applied Science
University of Colorado Boulder

Center for Media, Arts, and Performance Advisory Committee (2017)
ATLAS Institute
College of Engineering and Applied Science
University of Colorado Boulder

Undergraduate Scholarship Committee (2016-Present)
College of Engineering & Applied Science
University of Colorado Boulder

Teaching Faculty (2002-2012)
Digital Currents Outreach Program
University of Colorado Boulder

Teaching Faculty (2010)
Boulder Digital Works
University of Colorado Boulder

Curriculum Content Specialist (2006-Present)
ACCET (Accrediting Council for Continuing Education and Training)
National, Federal Government

Educational Director/Coordinator (2008-2015)
Communikey Festival of Electronic Arts
Boulder, Colorado

Board Member (2009-2015)
ICAS, International Cities for Advanced Sound
International

Education Committee Member (2014-Present)
Independent Order of Odd Fellows
Boulder Lodge #9

Steering Committee Member (2009-2013)
ASSETT (Arts Sciences Support Education Teaching Technology)
University of Colorado Boulder

Web Developer, Documentarian (2009)
Herbst Humanities Program
University of Colorado Boulder

Technology Liaison (1998-2009)
Office of Information Technology
University of Colorado Boulder

Fundamentals of Engineering Proctor (2006-2007)
College of Engineering
University of Colorado Boulder

Teaching Faculty (2001)
Science Discovery
Boulder, Colorado

Teaching Experience

ATLS 2519 Design Technologies: Process, Fall 2017
ATLS 2200 WEB, Fall 2015-Present
ATLS 4519 Creative Dev Tools, Fall 2016-Present
ATLS 3200 SOUND, Spring 2017-Present
ATLS 4519, ADV WEB, Spring 2016
ATLS 3519, Physical Computing, Spring 2013
ATLS 4519, Advanced Web Design, Fall 2012-Fall 2014
Digital Currents, Multimedia Outreach Program, Summer 2002-2012
Boulder Digital Works, Advanced Multimedia, Summer 2010
ATLS 3519, Digital Sound, Fall 2009-Present
ATLS 4010, Capstone Projects, Spring 2009-Present
ATLS 3010, Digital Media 1, Fall 2008-Spring 2015
ATLS 2000, Meaning of Information Technology, Spring 2008-Present
ATLS 3120, Net Presence, Spring 2003-Spring 2006
ATLS 3010, Intro Projects in Technology Arts Media, Spring 2003-Spring 2008
JOUR 4171, Capstone Projects in Technology Arts Media, Spring 2001-Fall 2003
FINE 4176, New Directions in Digital Art, Fall 2001 (co-taught M.Amerika)
FINE 4097, Digital Narrative, Spring 2001 (co-taught M.Amerika)
JOUR 4841, Interactive Design, Spring 2000
FINE 3079, New Forms, Fall 1998-Fall 2003

Education

Master of Fine Arts, Integrated Arts, 2008
Graduate Program, Department of Art and Art History
University of Colorado Boulder

Bachelor of Fine Arts, Studio Painting, 1998
University of Colorado Boulder

Bachelor of Arts, Psychology, 1998
University of Colorado Boulder
Magna Cum Laude Honors

Exhibitions

Thesis Installation, re[ME/dia]ted, 2008
Dairy Center for the Arts, Boulder, Colorado, USA

Installation/Sound Performance, *TOAST*, 2007
Sibell Wolle Fine Arts, Boulder, Colorado, USA

Multimedia Performance, *myspace*, 2007
Boulder Museum of Contemporary Art, Boulder, Colorado, USA

Multimedia Performance, *Fringe Festival*, 2007
Loft Theater, Boulder, Colorado, USA

Group Show, *One Night Stand*, 2006
Albuquerque, New Mexico, USA

Group Show, *Visualizations Without Borders*, 2006
Escuela Nacional de Artes Plasticas, Xochimilco, Mexico

Participant, *Prix Ars*, 2005
Ars Electronica, Linz, Austria

Invited Artist, *FILE*, 2003
Electronic International Language Festival, Sao Paulo, Brazil

R. **Ben**jamin **Shapiro**

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ben.shapiro@colorado.edu

Appointments

Assistant Professor, University of Colorado Boulder, Boulder, CO, USA **2015 –**
ATLAS Institute and Department of Computer Science, and, by courtesy, School of Education & Department of Information Science

Faculty Affiliate of the Center for Research Data and Digital Scholarship
Faculty Fellow in the Media Archaeology Lab,

McDonnell Family Professor of Engineering Education, Tufts University, Medford, MA, USA **2013 – 2015**
Assistant Professor
Department of Computer Science
Department of Education
Center for Engineering Education and Outreach

Academic Training

Postdoctoral Research Associate **2010 - 2012**
Games+Learning+Society
Wisconsin Institutes for Discovery
University of Wisconsin, Madison

Visiting Assistant Professor **2009 - 2010**
School of Education
University of Pittsburgh

Ph.D., Learning Sciences, Northwestern University **Fall 2002 – Winter 2009**

Advisor: Prof. Louis Gomez (Learning Sciences & Computer Science)
Committee: Prof. Miriam Sherin (Learning Sciences), Prof. Uri Wilensky (Learning Sciences & Computer Science)
Dissertation: *Understanding Formative Instruction by Helping Teachers to Enact it With New Technologies*

BA, Independent Studies, University of California, San Diego **Fall 1998 – Spring 2002**

Advisors: Prof. Bill Griswold (Computer Science), Prof. Jim Hollan (Cognitive Science)

Peer Reviewed Publications & Presentations

Acceptance Rates (AR) listed when available

All acceptance rates listed are the most specific available for the conference year and submission category. In some cases, per-category data are not available and so the overall submission acceptance rate for the year is used. Any people whose names are followed by a superscripted s (s) were students at the time of co-authorship.

Papers

Shapiro, R. B., Kelly, A.s, Ahrens, M.s, Johnson, B., Politi, H., & Fiebrink, R. (2017) Tangible Distributed Computer Music for Youth. The Computer Music Journal. MIT Press.

Fiesler, C., Morrison, S., Shapiro, R. B., & Bruckman, A. (2017) Growing Their Own: Legitimate Peripheral Participation for Computational Learning in an Online Fandom Community. CSCW '17 Proceedings of the ACM Conference on Computer-Supported Cooperative Work & Social Computing, 2017. AR = 28%

Deitrick, E.[s], Shapiro, R. B., & Gravel, B. (2016) How do we assess equity in programming pairs? Proceedings of the12th International Conference of the Learning Sciences. Singapore. Paper AR = 31%

Shapiro, R. B., Kelly, A.[s], Ahrens, M.[s], & Fiebrink, R. (2016) BlockyTalky: A Physical and Distributed Computer Music Toolkit for Kids. 16th International Conference on New Interfaces for Musical Expression. Brisbane. AR = 23%

Shapiro, R. B. & Ahrens, M.[s] (2016) Beyond Blocks: Syntax and Semantics. Communications of the ACM 59(5).

Wardrip, P. S., & Shapiro, R. B. (2016). Digital media and data: using and designing technologies to support learning in practice. *Learning, Media and Technology*, *41*(2), 187-192.

Deitrick, E.[s], Shapiro, R. B, Ahrens, M. P.[s], Fiebrink, R., Lehrman, P. D., Farooq, S[s]. (2015) Using Distributed Cognition Theory to Analyze Collaborative Computer Science Learning. Proceedings of 2015 International Computing Education Research (ICER) conference. Omaha, NE. Paper AR = 26%

Russ, R., Wangen, S., Nye, L., Shapiro, R. B., Strinz, W., Ferris, M. (2015) Fields of Fuel: Using a Video Game to Support Reasoning about Sustainability. The Science Teacher 82(3). March 2015.

Shapiro, R. B. and Wardrip, P[s]. (2015) Keepin' it real: Understanding analytics in classroom practice. Technology, Instruction, Cognition, and Learning, 10(2).

Deitrick, E.[s], O'Connell, B.[s], & Shapiro, R. B (2014) The discourse of creative problem solving in childhood engineering education. Proceedings of the 2014 Annual Conference of the Learning Sciences. Boulder, CO. Boulder, CO. Paper AR = 30%

Coopey, E.[s], Shapiro, R. B., & Danahy, E., (2014) Collaborative spatial classification. Short paper in Proceedings of Learning Analytics and Knowledge 2014. Indianapolis, IN. Conference AR=30%

Sanford, J. P.[s], Tietz, A.[s], Farooq, S.[s], Guyer, S., Shapiro, R. B. (2014) Metaphors we teach by. Proceedings of the 2014 ACM SIGCSE Conference. Atlanta, GA. Paper AR=39%

Shapiro, R. B. & Ossorio, P. (2013). Ethics for design-based research on online social networks. Proceedings of the 2013 Conference on Computer Supported Collaborative Learning. Paper AR=36%

Owen, V. E.[s], Halverson, R., Shapiro, R. B. (2013) Game-Based Assessment: An integrated model for capturing evidence of learning in play. Proceedings of the 2013 Conference on Computer Supported Collaborative Learning. Paper AR=36%

Shapiro, R. B. & Ossorio, P. (*2013*). Regulation of Online Social Network Studies. *Science 339(6116).*

Shapiro, R. B., Squire, K., and the Educational Research Integration Area (*2011*). Games for participatory science. *Educational Technology*.

Shapiro, R. B., & Wardrip, P.S.[s] (2011) Interactive representations of student activity to inform teacher collaborations: results from a formative investigation. *Proceedings of Computer Support for Collaborative Learning 2011*. Hong Kong. Paper AR=38%

Abrahamson, D.[s], Berland, M., Shapiro, R. B., Unterman, J., and Wilensky, U. (2006) Leveraging epistemological diversity through computer-based argumentation in the domain of probability. *For the Learning of Mathematics* 26(3). November 2006.

Griswold, W.G. Shanahan, P., Brown, S.W., Boyer, R., Ratto, M.[s], Shapiro, R.B.[s],Truong, T.M.[s] (2004) ActiveCampus: experiments in community-oriented ubiquitous computing. IEEE Computer 37(10). October 2004.

Ratto, M., Shapiro, R.B., Truong, T.M., and Griswold, W.G. (2003) The ActiveClass project: experiments in encouraging classroom participation. Proceedings of Computer Support for Collaborative Learning 2003, Kluwer, June 2003. Paper AR=25%

Demos, Posters, Workshops, & **Presentations**

Kelly, A.[s], Bolles, M.[s], & Shapiro, R. B. (2017) BlockyTalky: A Prototyping Toolkit for Digital Musical Interfaces. Workshop at New Interfaces for Musical Expression (NIME) 2017. Copenhagen, Denmark.

Grover, S., Shapiro, R. B., Dorn, B. (2015) K-12 CS teaching methods courses. Birds of a Feather Session. SIGCSE '15. Proceedings of the 46th ACM Technical Symposium on Computer Science Education.

Meehan, R. J.[s], Gravel, B. E., Shapiro, R. B. (2014) A Card-Sorting Task to Establish Community Values in Designing Makerspaces. Poster presented at FabLearn 2014.

Deitrick, E.[s], Sanford, J.[s], & Shapiro, R. B. (2014) BlockyTalky: A low-cost, extensible, open source, programmable, networked toolkit for tangible creation. Interactive Demonstration at ACM Interaction Design and Children (IDC) 2014. Demo AR = 66%

Holbert, N.[s], Weintrop, D.[s], Wilensky, U., Sengupta, P., Killingsworth, S.[s], Krinks, K.[s], Brady, C., Clark, D., Klopfer, E., Shapiro, R. B., & Russ, R. (2014) Combining video games and constructionist design to support deep learning in play. Symposium at the 2014 Annual Conference of the Learning Sciences. Boulder, CO. Symposium AR=50%

Wardrip, P.[s], Shapiro, R. B., Forte, A., Maroulis, S., Brennan, K., & Roque, R.[s] (2013) CSCW and education: viewing education as a site of work practice. Workshop at ACM CSCW '13. Proceedings of the 2013 conference on Computer Supported Cooperative Work Companion. San Antonio, TX.

Hatfield, D., Anton, G.[s], Ochsner, A.[s], Squire, K., Shapiro, R. B., Games, A. (2013). Studio K: tools for game design and computational thinking. *Demonstration* at the 2013 Conference on Computer Supported Collaborative Learning.

Owen, V. E.[s], Halverson, R., Shapiro, R. B., Harris, S.[s], Rothschild, M.[s], Bell-Gawne, K.[s] (2013). Game-based Assessment: An integrated model for capturing evidence of learning in play. Presentation at the 2013 Annual Conference of the American Educational Research Association. Conference AR=52%

Kane, L.[s], Berger, W.[s], Anton, G.[s], Shapiro, R.B., & Squire, K. (2012). Studio K: A game design curriculum for computational thinking. In K. Squire, C. Martin, & A. Ochsner (Eds.), Proceedings of the Games, Learning, and Society Conference: Vol. 2. Pittsburgh PA: ETC Press. Conference AR=50%

Ingram-Goble, A.[s], Shapiro, R. B., Stokes, B.[s], Kim, Y. J.[s], and Wardrip, P. S.[s] (2012). Design to change assessment: evidence centered design & democratizing learning. Presentation at the Digital Media and Learning Conference 2012. San Francisco. Paper AR=30%

Klopfer, E., Coulter, B., Dunleavy, M., Shapiro, R.B., Sheldon, J., Rosenheck, L., Perry, J., Squire, K., & Mathews, J., (2011) Augmented reality games: place-based digital learning. Symposium at Computer Support for Collaborative Learning 2011, Hong Kong. Symposium AR=82%

Shapiro, R. B.[s], Gray, T.[s], Lee, A., Pinkard, N., & Nacu, D. (2010) Building a community of practice with SPACE and RemixWorld. Presentation at Games, Learning, and Society 6.0. Madison, WI. Conference AR=50%

Shapiro, R. B. and Wardrip, P. S.[s] (2010). Understanding formative instruction by design. Poster at International Conference of the Learning Sciences, Chicago. Poster AR=57%

Shapiro, R. B.[s], Petry, H.[s], and Gomez, L. M. (2008). Computational infrastructures for school improvement. Poster at Educational Data Mining, Montreal, Canada.

Shapiro, R. B., Thomas, K., and Carter, T. (2006) Three club designs to foster the development of empowered identities. In B. Barron and Y. Kafai (Chairs), Clubs, Homes, and Online Communities as Contexts for Engaging Youth in Technology Fluency Building Activities. Symposium conducted at the 7th International Conference in the Learning Sciences. June 2006.

Book Chapters

Shapiro, R. B. (2016) Toward participatory discovery networks: A critique of current mass collaboration environments and a possible learning-rich future. In *Mass collaboration and education* (pp. 187-207). Springer International Publishing.

Halverson, R. and Shapiro, R. B. (2013) Technologies for education and technologies for learners. Chapter in The Infrastructure of Accountability: Data Use and the Transformation of American Education, Anagnostopoulos, Rutledge, & Jacobsen, Eds. Harvard Education Press.

Additional Publications, Presentations, & Workshops

Finch, L.[s] & Shapiro, R. B. (2017) Luminous Science. Workshop at FabLearn 2017.

Shapiro, R. B. (2017) The Future of Tools for Computational Thinking. Invited Keynote at VL/HCC 2017.

Shapiro, R. B., Fiebrink, R., & Norvig, P. (2017) Research on Learning about Machine Learning. Workshop at ACM ICER 2017.

Robins, A. & Shapiro, R. B. (2016) The growth of computing education doctoral research. ACM SIGCSE Bulletin 48(4). doi: 10.1145/3015259.3015261

Shapiro, R. B. (2014) Computing for creative citizenship. Keynote for Tufts Parents Weekend.

Shapiro, R. B. (2014) Where do we go from here? Teaching, mentoring, and learning in the games and crowdsourcing era. Invited presentation at the Mass Collaboration and Education workshop at KMRC Tübingen, May 21-23, 2014.

Shapiro, R. B. (2014) BlockyTalky for music. International Computing Education Research (ICER) 2014 Critical Research Review.

Shapiro, R. B. (2014) The future of crowdsourcing games. Presentation at the Crowdsourcing Games Summit held by The White House Office of Science and Technology Policy.

Shapiro, R. B. (2014) Principled design of online learning environments. Colloquium at the University of Toronto Faculty of Information, Knowledge Media Design Institute. Feb 2014.

Shapiro, R. B., (2014) Engineering games to connect the classroom to the world. Keynote at the Chicago Symposium Series on Excellence in Teaching Mathematics and Science: Research and Practice 2014.

Berger, W.[s], Anton, G.[s], Rosu, E.[s], Banh, T.[s], Dietmeier, J.[s], Shapiro, R. B., Hatfield, D., Berland, M., and Squire, K. (2013) Studio K: A game design curriculum for computational thinking.

Shapiro, R. B. and Halverson, R. (2011) Searching for school reform: How small steps in personalized search, data visualization, and social network analysis technologies can immediately improve schools. Tech Talk at Google, Inc. March 7, 2011.

Grants & **Awards**

PI: Google grant for research on Machine Learning Education for Performance Enhancement. $90k (2017)

PI: Qualcomm grant for research on programmable IoT technologies for youth and the EPIC program. $130k (2017)

PI: NSF Cyberlearning: Catalyzing Scientific Inquiry and Engineering through Wearable Intersubjective Sensation Devices. $750k (2017 – 2020)

PI: Gift from Oracle Corp. to support research on K12 CS Education. $65k (2017), $85k (2018)

University of Colorado President's Commendation for Promoting Diversity on Campus (2016)

PI: NSF CAREER: Constructing Modern and Inclusive Trajectories for Computer Science Learning. CNS-1453201 - $500k (2015-2019)

PI: NSF EAGER: Engineering Inquiry for All at Nedlam's Workshop. IIS-1450985 - $300k (2014-2016)

PI: NCWIT Academic Alliance Seed Grant - $10k (2014)

PI: NSF EAGER: BP: WeJam: A Feasibility Study of Programmable Instrument Design to Broaden Participation in Computing. CNS-1418463 - $230k, (2014-2016)

Co-PI: NSF BioSourcing: A Crowdsourcing Approach to Increasing Public Understanding in Computational Biosciences. IIS-1227530 - $1,349,989(2012-2016)

Northwestern University Learning Sciences Mac & Cheese Cookoff (2008) - 1st Place (with Sarah Shapiro)

Teaching Experience

University Teaching

University of Colorado Boulder

CSCI 4830/7000 & ATLS 4519/5519 – Interactive Machine Learning for HCI **2017**

Students learn to apply supervised machine learning techniques within the development of end user customizable software and hardware systems. The first half of the semester students complete a series of 2-3 week tutorial projects. In the second half, they work in teams to engineer a substantial final project.

ATLAS 4519 – Code Sorcery for New Wizards **2016**

This course is a gentle introduction to creative programming, meant for those with no prior experience. Students in this course learn to write computer programs that work with images and sound, as well as prototype mobile apps, games, and/or interactive physical computing pieces. They demonstrate their newly developed techno-wizardry skills by working together in teams to create a final project

CSCI 4830/7000 & ATLS 4519/5519 – K12 Computer Science Education **2016** & **2017**

Students study research and practical techniques for enabling children and teens to learn computer science. This course combines an intense reading load, covering key papers and books in the past 35 years of research in the field, with numerous hands-on 2-3 week projects, culminating in a 5-week project of original research.

Tufts University

COMP 150 / ED 191 – Design of Collaborative Learning Technologies **2013** & **2014**

Students learn techniques for user- and context-sensitive design of technologies for collaboration and learning. To do so they work on real design projects where they ethnographically observe practice in existing settings, interview participants in those practices, generate models of work practice, create prototypes of new tools using their data, and refine those prototypes based on feedback from participants.

ED 191 / COMP 150 – Theories and Technologies for K12 CS Education **2014**

This course, the first of its kind in the region and one of the first in the country, covers a broad spectrum of research on how youth learn computer science. With a strong focus on equity and inclusion, students read theoretical and empirical papers on CS learning, and do a sequence of multi-week projects using different technologies for CS education. The course culminates in a 5-week project where students design a novel CS learning experience and test it out with youth.

COMP 250 – Graduate seminar on CSCW, CSCL, and Social Computing **Spring 2014**

Students and I read and discussed foundational and recent articles across the fields of Computer Supported Cooperative Work (CSCW), Computer Supported Collaborative Learning (CSCL), and Social Computing. Each student wrote a research proposal for a study that they would like to do that draws on theoretical and methodological approaches in the texts we read.

University of Wisconsin, Madison, Computer Science

CS699: *Agent-based Programming for Conservation Modeling* **Spring & Fall 2012**

Covers scientific modeling, game bot programming, and optimization. Students create simulations of complex ecological and economic systems, then create AI bots to compete against one another in a prototype video game that simulates rural Wisconsin ecologies and economics. Co-taught with Michael Ferris.

Northwestern University, Computer Science & Learning Sciences

Human Computer Interaction (CS/EECS 330)	Teaching Assistant (**2006** & **2007**) Co-Instructor (**2008**)
Macrocognition (LOC 301)	Teaching Assistant (**2007**)
Design of Learning Environments (for Teachers) (LS 427)	Teaching Assistant (Winter **2005**)

Secondary School Teaching and Leadership

University of Pittsburgh & **Pittsburgh Public Schools** **2009-2010**

Helped found first new Pittsburgh Public high school in 70 years.
Led and co-led daily teacher professional development for 6-10 grade teachers.
Directed a 1:1 laptop and parent outreach program in Pittsburgh's Hill District.

Digital Youth Network (DYN), Chicago **2005-2007**

Founding teacher. Taught middle school students to design and program videogames and digital stories.
Developed web-based instruction planning and assessment tools, as part of DYN's *iRemix* platform.

Board Memberships

Advisory Board for NSF funded Cornell University *Live Bird Cams* Ornithology Project. 2017 -

Advisory Board for IMLS funded University of Maryland *Youth Experience Graduate Certificate Program*. 2016 -

Advisory Board for NSF funded Georgia Tech & Northwestern project on *Mixing Learning Experiences for Computer Programming Across Museums, Classrooms, and the Home Using Computational Music*. 2015 -

Advisory Board for U.S. Department of Education funded McRel Intl. and USC project Pathways to Success. 2015 -

Advisory Committee on Computer Science, Bollman Technical Education Center, Adams 5-star School District. Chair 2015-2016; Member 2015 -

ACM Education Council. 2015 -

Wisconsin Superintendent of Education Digital Learning Advisory Council. 2012

Additional Professional Activities

Co-chair, Doctoral Consortium, International Computing Education Research (ICER) conference, 2016 & 2017

Associate Editor, ACM Transactions on Computing Education, 2016-

Co-chair, Design Competition, ACM Interaction Design & Children 2017

Co-chair, Papers, ACM Interaction Design & Children 2015

Co-chair, FabLearn 2014 (Papers), FabLearn 2015 (Workshops)

Co-chair, American Educational Research Association (AERA), Div. C, Section 1e: Engineering and Computing Education, 2013

Discussant, *Doctoral Consortium*, ICER 2015

*Member***,** Boston Race, Education, and Democracy STEM Network (RED STEM), 2013-2015

Reviewer
International Computing Education Research conference, 2014 –
Cognition and Instruction
AERA Division C: Learning & Instruction, 2013
ACM SIGCHI Conference
ACM Transactions on Computing Education
Journal of Computer Science Education
American Educational Research Association (AERA)
Advanced Technologies for Learning (SIG-ATL)
Media, Culture, and Curriculum SIG
International Conference of the Learning Sciences

International Conference on Computer-Supported Collaborative Learning
Interaction Design for Children
Foundations of Digital Games
Games+Learning+Society
Tangible & Embodied Interaction
Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)

JOEL SWANSON

b. 1978 Chicago, Illinois, USA
joelericswanson@gmail.com | joelericswanson.com

EDUCATION

2005 University of California, San Diego, Master of Fine Arts, Computing in the Arts
2002 University of Colorado at Boulder, Bachelor of Fine Arts, Summa Cum Laude

SELECTED SOLO/TWO PERSON EXHIBITIONS

2017 *Marginalia*, Dairy Center for the Arts / Boulder, CO (upcoming)
Sticks and Stones, David B Smith Gallery / Denver, CO (upcoming)
2016 *Corruption, Media Live Festival* University of Colorado Art Museum / Boulder, CO
two-person exhibition with Steven Frost
2015 *Polysemic* MOA: Museum of Outdoor Arts / Englewood, CO
A.K.A. David B. Smith Gallery / Denver, CO
2014 *XYZ*, David B. Smith Gallery / Denver, CO
Joel Swanson: Left to Right, Top to Bottom, curated by Nora Burnett Abrams,
Museum of Contemporary Art / Denver, CO
2013 *Joel Swanson: Work Inspired by the Media Archeology Lab*, Counterpath / Denver, CO
2011 *Formalisms* / RedLine, Denver, CO
2008 *Binarisms* / ATLAS Institute, University of Colorado at Boulder / Boulder, CO
2004 *Confessions: A Fictional Overhaul of Saint Augustine*, Marcuse Gallery/ San Diego, CA
HyperX at ALTX.com / www.altx.com/hyperx

SELECTED GROUP EXHIBITIONS

2017 *Personal Structures*, official satellite show of the 57th Venice Biennale
curated by Cortney Stell / Venice, Italy
2016 *International Digital Media Arts Association* juried exhibition / Winona, MN
Writ Large University of California, Santa Cruz / Santa Cruz, CA
101 Mediapoetry Festival / St. Petersburg, Russia
Art of the Maker CultureHaus and the Denver Art Museum / Denver, CO
A Few Final Words selected works from the Mark & Polly Addison Collection / Boulder, CO
2015 *DecoSlut*, Gildar Gallery / Denver, CO
2014 *More than Friends*, Ironton Studios / Denver, CO
Culture Catalyst, Celebrating 20 Years of Art at Denver International Airport / McNichols Building / Denver CO
Miami Projects, satellite art fair of Art Basel / Miami, FL
Text, DAVA: Downtown Aurora Visual Arts / Aurora, CO
Recognizable Disguises, Firehouse Gallery / Longmont, CO
Postscript: Writing After Conceptual Art, curated by Nora Burnett Abrams,
The Eli & Edythe Broad Art Museum / East Lansing, MI
2013 *Digital Graffiti* Alys Beach / Pensacola, FL
Ice Breaker 4, Ice Cube Gallery / Denver, CO
Not Exactly, RedLine / Denver, CO
Postscript: Writing After Conceptual Art, curated by Nora Burnett Abrams,
The Power Plant / Toronto Canada
B.Y.O.B. (Bring Your Own Beamer) / Denver, CO

2012 *One Square Foot* / Denver, CO
Material Engagements, curated by Harmony Hammond, RedLine / Denver, CO
Postscript: Writing After Conceptual Art, curated by Nora Burnett Abrams, Museum of Contemporary Art / Denver, CO
Blacktop Art Festival, blacktopfestival.com / Denver, CO,
Optic Nerve, Museum of Contemporary Art / North Miami FL
Digital Graffiti Alys Beach / Pensacola, FL
Museum of Glitch Aesthetics: glitchmuseum.com / Abandon Normal Devices Festival, collaboration with Mark Amerika, Rick Silva, and others / Manchester, UK
Urban Encounters: SightLine / Denver, CO
Interlife Crisis, Fictilis Gallery / Seattle WA
Terminal Net.Art Austin Peay University / Clarksville, TN

2011 *Au: Exchange*, RedLine / Denver, CO
Design for the Other 90% Denver, CO
Frame of Mind / Denver, CO
B.Y.O.B. (Bring Your Own Beamer) / Denver, CO

2010 *Informal Show*, Redline / Denver, CO
Cross Ties Across Time / Redline / Denver, CO

2009 *Binarisms* / Digital Arts and Culture Conference, Electronic Literature Gallery / Irvine CA
The Last Book / Multimedia Book Performance, Schindler House / Los Angeles, CA

2008 *The 86 Collective* / Beta Nightclub / Denver, CO
Ruckus, Repeat, Ruckus: Visual Noise / The Lab / Belmar, CO

2007 *The Last Book* / Multimedia Book Project collaboration with Steve Fagin, Mary Gaitskill, Leslie Thorton, Davina Semo, and others / Los Angeles, CA

2006 *LA Freewaves,* Online Archive / Los Angeles, CA
Synesthesia, Empyre / http://.empyre.com
Confessions, Orange County Center for Contemporary Art / Orange County, CA

2005 *Supersonic*, L.A. Design Center / Los Angeles, CA
Now Happening, University Gallery / San Diego, CA

2004 *FILE, Electronic Language International Festival* / Sao Paulo, Brazil
Digital N@arrative, UCLA Hammer Museum / Los Angeles, CA

2003 *AIM (Art in Motion)* /Sussquahannah Art Museum Philadelphia, PA
9th Floor, Graduate Relocation Project / Los Angeles, CA
Life By Design Conference Exhibition, University of California Irvine / Irvine, CA
Emerging Artists Digital Art Show, The Dairy Center / Boulder, CO

2002 *AIM (Art in Motion Festival)* / University of Southern California / Los Angeles, CA
Full Frontal, University of Colorado Art Museum / Boulder, CO
Korean Web Art Festival, collaboration with Mark Amerika, Seoul, Korea

COMMISSIONED PROJECTS

2017 Porte Cochère, Hotel Born / Denver, CO hotelborndenver.com
27 piece commission, Hotel Born / Denver, CO hotelborndenver.com

2016 *Ligature* (lenticular print) / Twitter
Sincerely, (vinyl wall mural) Halcyon Hotel / Cherry Creek, CO www.halcyonhotelcherrycreek.com

2012 Terminal Net.Art Commission: http://terminalapsu.org
Urban Encounter: Sightline, Video Art Commission / Denver, CO

BIBLIOGRAPHY

2017 Rinaldi, Ray Mark. "Piece by piece, important visual arts event Venice Biennale feels closer and closer to Denver." *Denver Post* 28 May 2017. p. 1E. Print.

Trouillot, Terence. "And the Latest Nation to Join the Venice Biennale Is… Colorado: The "nomadic" art space Black Cube is taking its mission way beyond the streets of Denver," *Art Net News*. 16 May 2017. news.artnet.com/art-world/black-cube-colorado-venice-960686 Web. 16 May 2017.

Farely, Michael Anthony, "Tuesday Links: Racist Art Out, Vomit Art In." *Art F City* 16 May 2017 artfcity.com/2017/05/16/tuesday-links-racist-art-out-vomit-art-in/ Web. 16 May 2017.

Lane, Cortney Stell. "Laura Shill & Joel Swanson." *Personal Structures: Time, Space Existence*. Venice, 2017 p. 518–521. Print.

Rinaldi, Ray Mark. "Why you should be following Black Cube (and here is the 2017 Lineup)." *One Good Eye*, 27 January 2017. onegoodeyeonline.com/2017/01/27/black-cube-announces-2017-fellows-and-you-might-know-some-of-them/ Web. 27 January 27 2017.

Archuletta, Lauren. "Exploding Art-World Boundaries With Black Cube's New Fellows." *Westword* 24 January 2017. www.westword.com/arts/exploding-art-world-boundaries-with-black-cubes-new-fellows-8723754 Web. 27 January 2017.

Kirschenbaum, Matthew, "Track Changes: A Literary History of Word Processing." Cambridge, Massachusetts: Belknap Press, 2016. p. 206. Print.

Paglia, Michael. "Learn Joel Swanson's Language at the Museum of Outdoor Arts." *Westword* 10 February 2016. www.westword.com/arts/learn-joel-swansons-language-at-the-museum-of-outdoor-arts-7589763 Web. 10 February 2016

Garza, Evan Selector. *New American Paintings*, issue 120. October 2015. p. 142–145. Print. newamericanpaintings.com/issues/120

Rinaldi, Ray Mark. " Joel Swanson's curious connections at Englewood Museum of Outdoor Arts." *Denver Post* 29 October 2015. denverpost.com/2015/10/29/joel-swansons-curious-connections-at-englewood-museum-of-outdoor-arts/ Web. 29 October 2015.

Paglia, Michael. "Review: Two Distinct Takes on Conceptualism Fill the David B. Smith Gallery." *Westword* 6 October 2014. www.westword.com/arts/review-two-distinct-takes-on-conceptualism-fill-the-david-b-smith-gallery-604827 Web. 6 October 2014.

Froyd, Susan. "Another 100 Colorado Creatives: Joel Swanson." *Westword* 6 May 2014. www.westword.com/arts/another-100-colorado-creatives-joel-swanson-5778448 Web. 6 May 2014.

Paglia, Michael. "Joel Swanson engages in wordplay at MCA Denver." *Westword* 6 March 2014. www.westword.com/arts/joel-swanson-engages-in-wordplay-at-mca-denver-5123615 Web. 6 March 2014.

Rinaldi, Ray Mark. "MCA Denver's (not too) likable showcase of Joel Swanson and Ian Fisher." *Denver Post* 23 January 2014. p. 1E. Print

Froyd, Susan. "An ampersand is an ampersand is an ampersand in one of MCA Denver's new exhibits." *Westword* 20 January 2014. www.westword.com/arts/an-ampersand-is-an-ampersand-is-an-ampersand-in-one-of-mca-denvers-new-exhibits-5804151 Web. 20 January 2014.

Burnett Abrams, Nora, "Left to Right, Top to Bottom," Catalog Essay. Museum of Contemporary Art Denver. 2014. Print.

Hammond, Harmony, "Material Engagements," Catalog Essay, RedLine Denver 2014. Print

Schrijver, Eric. "No-one Starts From Scratch: Type Design and the Logic of the Fork," 1 October 2013. i.liketightpants.net/and/no-one-starts-from-scratch-type-design-and-the-logic-of-the-fork Web. 1 October 2013, Web.

Ascher, James P, Emerson, Lori, Ed. "Bibliographical Awareness in Art: Joel Swanson's Spacebar," *Media Archaeology Lab* 1 December 2013. mediaarchaeologylab.com/blog/bibliographical-awareness-art-joel-swansons-spacebar Web. 1 December 2013.

TEXTS

2017 Swanson, Joel. "Q&A: Joel Swanson and Adam Milner talk *Desirable Objects*." *One Good Eye*, 13 July. 2017, onegoodeyeonline.com/2017/07/13/qa-joel-swanson-adam-milner-talk-desirable-objects/ Accessed 13 July 2017.

AWARDS, GRANTS & FELLOWSHIPS

2017 Black Cube Artist: http://www.blackcubeart.org
Center for Arts and Humanities Grant for project, *Personal Structures*
Colorado Creative Industries Grant
2015 Nominated for Louise Tiffany Comfort Award: louiscomforttiffanyfoundation.org / New York, NY
Museum of Outdoor Arts Commission: $15,000 award / Englewood, CO
2014 Best of Westword Award: "Best Show Combining Thinking and Seeing *Left to Right, Top to Bottom* curated by Nora Burnett Abrams / Denver, CO
2013 Best of Westword Award: "Best Member Art Show" *Material Engagements* curated by Harmony Hammod, Denver, CO
Center for Arts and Humanities Grant for project, *Logic Only Works in Two Dimensions*
Nominated for YES MA'AM COLORADO ARTIST GRANT: yesmaamprojects.com / Denver, CO
Invited Guest Judge, Digital Graffiti / Alys Beach, FL
Digital Graffiti invited Residency / Alys Beach, FL
Media Archeology Lab Artist in Residence / University of Colorado at Boulder / Boulder, CO
2012 "Most Experimental" winner at Digital Graffiti at Alys Beach / Pensacola, FL
2011 Digital Humanities Research Seminar / University of Colorado at Boulder Research Award for invited seminar participation
Center for Arts and Humanities Grant for project *Sol Lewitt's Statements on Conceptual Art, Diagrammed*
Terminal Award / Commission award for Internet Project, *From Here*
2009 Visual Science: Technology, Aesthetics, Investigation / University of Colorado at Boulder Research Award for invited seminar participation

2006 ATLAS Leadership Award, ATLAS Institute / University of Colorado at Boulder
2004 Humanities Grant / University of California, San Diego
Graduate Research Grant / University of California, San Diego
2003 Graduate Fellowship / University of California, San Diego
Teaching Assistantship / University of California, San Diego
2002 Summa Cum Laude Honor's Thesis in Digital Art / University of Colorado at Boulder
Deans List / University of Colorado, Boulder
2001 Undergraduate Research Grant / University of Colorado, Boulder
Addison New Media Scholarship / University of Colorado, Boulder

RESIDENCIES

2013 Digital Graffiti Residency / Alys Beach, FL
Media Archeology Lab Artist in Residence / University of Colorado at Boulder / Boulder, CO
2010–2012 RedLine Artist Residency / Denver, CO

COLLECTIONS

Mark and Polly Addison Collection / Boulder, CO
University of Colorado Boulder Art Museum / Boulder, CO
Museum of Outdoor Arts / Englewood, CO

Daniel J. Szafir, Curriculum Vitae

Assistant Professor · University of Colorado Boulder

ATLAS Institute & Department of Computer Science, 1111 Engineering Drive, Boulder, CO 80309

+1-303-735-7892 | daniel.szafir@colorado.edu | **Homepage:** www.danszafir.com | **Lab Website:** www.atlas.com/iron

Research Interests

Mission My goal is to advance knowledge regarding the design of new sensing, interface, and robotic technologies to improve user experience, productivity, and enjoyment

Interests Human-robot interaction (HRI); human-computer interaction (HCI); virtual, augmented, and mixed reality; user-centered design; human-centered computing (HCC); aerial robotics; robotic technologies for space exploration; human-robot coordination and collaboration; educational technologies; robotic technologies for manufacturing

Employment

Assistant Professor
2015 – Present

University of Colorado Boulder — *Boulder, Colorado*

Department of Computer Science & ATLAS Institute

Affiliate Appointments: Department of Aerospace Engineering; Department of Information Science; Institute of Cognitive Science; Research and Engineering Center for Unmanned Vehicles (RECUV); Center for Neuroscience; Culture, Language, and Social Practice (CLASP) Program

Research Intern
Summer 2013 & Spring 2015

Intelligent Robotics Group, NASA Ames Research Center — *Mountain View, California*

Graduate Research Fellow
2010 – 2015

Department of Computer Sciences, University of Wisconsin–Madison — *Madison, WI*

Software Development Intern
Summer 2007 & Summer 2009

International Business Machines (IBM), Inc., — *Essex Junction, Vermont*

Software Development Intern
Summer 2008

Tybrin Corporation — *Nashua, New Hampshire*

Education

Ph.D., Computer Science
2012 – 2015

University of Wisconsin–Madison — *Madison, Wisconsin*

Dissertation: "Human Interaction with Assistive Free-Flying Robots"

Committee: Bilge Mutlu (co-chair), Terrence Fong (co-chair), John Lee, Kevin Ponto, and Tom Ristenpart

NASA Space Technology Research Fellow

Master of Science, Computer Science
2010 – 2012

University of Wisconsin–Madison — *Madison, Wisconsin*

Bachelor of Arts, Computer Science
2006 – 2010

Boston College — *Chestnut Hill, Massachusetts*

Honor's Thesis: "Non-Invasive BCI through EEG: An Exploration of the Utilization of Electroencephalography to Create Thought-Based Brain-Computer Interfaces"

Bachelor of Arts, History
2006 – 2010

Boston College — *Chestnut Hill, Massachusetts*

Honors & Awards

2017 **Forbes 30 Under 30: Science**
Named to the Forbes 30 Under 30 list of top innovators

2016 **NASA Early Career Faculty Award**

2015 **NSF CISE Research Initiation Initiative (CRII) Award**

2014 **Doctoral Consortia**
ACM/IEEE International Conference on Human-Robot Interaction (HRI 2014)
ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2014)

2012 – 2015 **NASA Space Technology Research Fellow (NSTRF)**

2010 **Boston College Computer Science Accenture Award**
Awarded to top graduating student in Computer Science for outstanding performance

2010 **Order of the Cross and Crown**
Boston College Honor Society for seniors demonstrating excellence in academics, service, and leadership

2010 **Phi Beta Kappa**

2010 **Graduated Summa Cum Laude**
Boston College

Publications

Major publications are listed below, with journal articles denoted by "J," conference papers with "C," short papers by "S," workshop papers with "W," demonstrations by "D," theses with "T," technical reports by "R," and patents with "P." For each publication, students under my supervision are denoted by (S), collaborators are indicated with (C), thesis advisors by (A), and students under the supervision of others with (O). Impact factors for journals and acceptance rates for conferences are provided where data is available. Note that conferences represent a primary publication venue in Computer Science.

Journal Articles

J.1. **Daniel Szafir**, Bilge Mutlu(A), and Terrence Fong(C). (2017). Designing Planning and Control Interfaces to Support User Collaboration with Flying Robots. *International Journal of Robotics Research* (IJRR), 36 (5–7), 514–542. doi: 10.1177/0278364916688256 *Impact factor: 5.30*

Refereed Full Conference Papers

C.11. Hooman Hedayati(S), Michael Walker(S), and **Daniel Szafir**. (2018). Improving Collocated Robot Teleoperation with Augmented Reality. To Appear in the *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018)*, Chicago, Illinois.

C.10. Michael Walker(S), Hooman Hedayati(S), Jennifer Lee(O), and **Daniel Szafir**. (2018). Communicating Robot Intent with Augmented Reality. To Appear in the *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018)*, Chicago, Illinois.

C.9. Catherine Diaz(S), Michael Walker(S), Danielle Albers Szafir(C), and **Daniel Szafir**. (2017). Designing for Depth Perceptions in Augmented Reality. In the *Proceedings of the IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2017)*, Nantes, France. *Acceptance rate: 26%*

C.8. Darren Guinness(O), **Daniel Szafir**, and Shaun Kane(C). (2017). GUI Robots: Using Off-the-Shelf Robots as Tangible Input and Output Devices for Unmodified GUI Applications. In the *Proceedings of the ACM Conference on Designing Interactive Systems (DIS 2017)*, Edinburgh, United Kingdom. *Acceptance rate: 24%*

C.7. **Daniel Szafir**, Bilge Mutlu(A), and Terrence Fong(C). (2015). Communicating Directionality in Flying Robots. In the *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2015)*, Portland, Oregon. *Acceptance rate: 25%*

C.6. Allison Sauppé[C], **Daniel Szafir**, Chien-Ming Huang[C], and Bilge Mutlu[A]. (2015). From 9 to 90: Engaging Learners of All Ages. In the *Proceedings of the ACM Technical Symposium on Computer Science Education (SIGCSE 2015)*, Kansas City, Missouri. *Acceptance rate: 36%*

C.5. **Daniel Szafir**, Bilge Mutlu[A], and Terrence Fong[C]. (2014). Communication of Intent in Assistive Free Flyers. In the *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2014)*, Bielefeld, Germany. *Acceptance rate: 24%*

C.4. **Daniel Szafir** and Bilge Mutlu[A]. (2013). ARTFul: Adaptive Review Technology for Flipped Learning. In the *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2013)*, Paris, France. *Acceptance rate: 20%*

C.3. Kevin Ponto[C], Ross Tredinnick[C], Aaron Bartholomew[C], Carrie Roy[C], **Daniel Szafir**, Daniel Greenheck[C], and Joe Kohlmann[C]. (2013). SculptUp: A Rapid, Immersive 3D Modeling Environment. In the *Proceedings of the IEEE Symposium on 3D User Interfaces (3DUI 2013)*, Orlando, Florida. doi: 10.1109/3DUI.2013.6550247 *Acceptance rate: 27%*

C.2. **Daniel Szafir** and Bilge Mutlu[A]. (2012). Pay Attention! Designing Adaptive Agents that Monitor and Improve User Engagement. In the *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2012)*, Austin, Texas. *Acceptance rate: 23%*

C.1. **Daniel Szafir** and Robert Signorile[A]. (2011). An Exploration of the Utilization of Electroencephalography and Neural Nets to Control Robots. In the *Proceedings of the IFIP TC.13 International Conference on Human-Computer Interaction (INTERACT 2011)*, Lisbon, Portugal. *Acceptance rate: 22%*

Refereed Short Conference Papers and Abstracts

S.3. **Daniel Szafir**. (2014). Human Interaction with Assistive Free-Flyers. In *Doctoral Consortium Extended Abstracts of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2014)*, Toronto, Canada. *Acceptance rate: 25%*

S.2. Steven Johnson[C], Xiang Zhi Tan[C], **Daniel Szafir**, and Bilge Mutlu[A]. (2014). Using At-A-Glance Displays to Enhance Student Attention. In the *McPherson Eye Research Institute (MERI) Symposium*, Madison, Wisconsin.

S.1. **Daniel Szafir** and Robert Signorile[A]. (2010). Non-Invasive BCI through EEG. In the *New England Undergraduate Computing Symposium (NEUCS 2010)*, Boston, Massachusetts.

Refereed Workshop & Symposium Papers

W.5. **Daniel Szafir**. (2016). A Cognitive Basis for Human Interaction with Aerial Robots. In the *Proceedings of the Workshop on Human-Robot Interaction for Small and Personal Unmanned Aerial Vehicles held at the Robotics: Science and Systems Conference (RSS 2016)*, Ann Arbor, Michigan.

W.4. Steve McGuire[O], P. Michael Furlong[C], Christoffer Heckman[C], Simon Julier[C], **Daniel Szafir**, and Nisar Ahmed[C]. (2016). Teamwork Across the Stars: Machine Learning to Overcome the Brittleness of Autonomy. In the *Proceedings of the Workshop on Human-Robot Collaboration: Towards Co-Adaptive Learning Through Semi-Autonomy and Shared Control held at the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2016)*, Daejeon, Korea.

W.3. Danielle Albers Szafir[C] and **Daniel Szafir**. (2016). Cognitive Load in Visualization: Myths and Misconceptions. In the *Proceedings of the Creation, Curation, Critique and Conditioning of Principles and Guidelines in Visualization (C4PGV 2016)* held at *IEEE VIS*, Baltimore, Maryland.

W.2. **Daniel Szafir**. (2014). Human Interaction with Assistive Free-Flyers. In the *Proceedings of the Human-Robot Interaction Pioneers Workshop held at the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2014)*, Bielefeld, Germany.

W.1. **Daniel Szafir** and Kevin Ponto[C]. (2012). Panoramic Imagery of Physical Locations Inside Immersive Environments. In the *Proceedings of the Midwest Graphics Conference (Midgraph 2012)*, Chicago, Illinois.

Conference Demonstrations

D.1. Kevin Ponto[(C)], Ross Tredinnick[(C)], Aaron Bartholomew[(C)], Carrie Roy[(C)], **Daniel Szafir**, Daniel Greenheck[(C)], and Joe Kohlmann[(C)]. (2013). SculptUp: A Rapid, Immersive 3D Modeling Environment. In the *IEEE Symposium on 3D User Interfaces (3DUI 2013) Contest*, Orlando, Florida.

Theses

T.2. **Daniel Szafir**. (2015). Human Interaction with Assistive Free-Flying Robots. *Doctoral Dissertation*, University of Wisconsin–Madison, Madison, WI, USA.

T.1. **Daniel Szafir**. (2010). Non-Invasive BCI through EEG: An Exploration of the Utilization of Electroencephalography to Create Thought-Based Brain-Computer Interfaces. *Bachelor Honors Thesis*, Boston College, Chestnut Hill, MA, USA.

Technical / Policy Reports

R.1. Enhanced User Interface Working Group. (2017). Public Safety Enhanced User Interface R&D Roadmap. *National Institute of Standards and Technology's (NIST) Public Safety Communications Research (PSCR) Program*.

Patents

P.1. Bilge Mutlu[(A)] and **Daniel Szafir**. (2012). Teaching System for Improving Information Retention Based on Brain-State Monitoring. U.S. Patent Application *# US 13/437,699*, Publication *# US 20130260361 A1*.

Research Grants & Gifts

Federal Grants

National Science Foundation Research Initiation Initiative (NSF CISE CRII)
Award #1566612
Amount: $174,300
Period: 2016 – 2018
Leveraging Implicit Human Cues to Design Effective Behaviors for Collaborative Robots
Investigator: Daniel Szafir (PI)

National Aeronautics and Space Administration Early Career Faculty (NASA ECF)
Award NNX16AR58G
Amount: $359,389
Period: 2016 – 2019
Developing Principles for Effective Human Collaboration with Free-Flying Robots
Investigator: Daniel Szafir (PI)

Corporate and Foundation Gifts & Grants

Intel Research Award #1553595
Amount: $126,993
Period: 2016 – 2017
Fusing Robotics and Consumer Devices for New Multimedia
Investigator: Daniel Szafir (PI)

University Grants

University of Colorado Boulder Innovative Seed Grant Program
Amount: $30,000
Period: 2016 – 2017
FieldView: Using Mobile Devices to Blend Data Collection and Analysis for Field Research
Investigators: Danielle Albers Szafir (PI) and Daniel Szafir (Co-I)

Fellowships and Awards with UW-Madison Affiliation

National Aeronautics and Space Administration Space Technology Research Fellowship (NSTRF) Award NNX12AN14H
Amount: $264,000
Period: 2012 – 2015
Effective Human-Robot Collaborative Work for Critical Missions
Investigator: Bilge Mutlu (PI)
Student Fellow: Daniel Szafir

Google Glass Award
Amount: $27,860
Period: 2013 – 2015
Improving Everyday Learning Using Glass
Investigators: Bilge Mutlu (PI) and Daniel Szafir

Selected Press Coverage

2017 **Forbes (US)**
Research highlighted as part of inclusion in the *Forbes 30 Under 30* list of top innovators

2017 **CU Engineering Magazine (US)**
Research covered in *"Getting to Know Your Robot"*

2016 **Daily Camera (US)**
Research covered in *"CU Student Meredith Burgess brings Tech to Pole Dance"*

2013 **Wisconsin State Journal (US)**
Research covered in *"Science Festival Mixes Learning, Fun"*

2012 **New Scientist (UK)**
Research covered in *"Mind-reading Robot Teachers Keep Students Focused"*

2012 **Discovery News (US)**
Research covered in *"Mind-reading Robot Teachers Head to Class"*

2012 **Engadget (US)**
Research covered in *"Mind-reading Robotic Teachers Are More... Anyone? Anyone? Attention-grabbing"*

2012 **La Repubblica (Italy)**
Research covered in *"U.S.: Robot Teacher Seeks Out Distracted Students"*

Talks

Invited Talks and Panels

2017 **Panelist**
Computing Research Association New Computing Faculty Workshop, San Diego, California
"Successes and Challenges as a new Assistant Professor"

2017 **Seminar Speaker**
NASA Ames Research Center, Intelligent Robotics Group, Mountain View, California
"Developing Principles for Effective Human Collaboration with Free-Flying Robots"

2017 **Workshop Opening Speaker**
Bridging the Gap in Space Robotics Workshop, RSS Conference, Boston, Massachusetts
"Bridging the Gap in Space Robotics"

2016 **Seminar Speaker**
NASA Ames Research Center, Intelligent Robotics Group, Mountain View, California
"Human-Robot Interaction at CU Boulder"

2016 **Invited Speaker**
Aerospace Ventures (ASV) Day, Boulder, Colorado
"Design Principles for Effective Human-Robot Collaboration"

2015 **Invited Speaker**
University of Iowa, Iowa City, Iowa
"Unlocking the Assistive Potential of Emerging Technologies"

2015 **Colloquium Speaker**
Arizona State University, Tempe, Arizona
"Unlocking the Assistive Potential of Emerging Technologies"

2015 **Colloquium Speaker**
University of Colorado Boulder, Boulder, Colorado
"Unlocking the Assistive Potential of Emerging Technologies"

Intramural Seminars

2016 **Seminar Speaker**
Aerospace Engineering Sciences, University of Colorado Boulder
"Leveraging Cognitive Engineering for Human-Robot Interaction"

2016 **Colloquium Speaker**
Institute of Cognitive Science (ICS), University of Colorado Boulder
"Leveraging Cognitive Engineering for Human-Robot Interaction"

2016 **Seminar Speaker**
Human-Centered Computing (HCC) Seminar, University of Colorado Boulder
"Human Interaction with Small Flying Robots"

2015 **Seminar Speaker**
Robotics, Controls, and Dynamic Systems (RCDS) Seminar, University of Colorado Boulder
"Human Interaction with Small Flying Robots"

Teaching

University of Colorado Boulder

CSCI 7000-008 / ATLS 5519 Human-Robot Interaction

Spring 2016 & 2017
Enrollment: 20 – 30

Overall Instructor Evaluation: 5.2/6.0

I designed and taught a graduate-level course that introduces students to the field of human-robot interaction (HRI). The course involves three key components: (1) a principles component that develops an understanding of the fundamental concepts of HRI through lectures and discussions of seminal and modern HRI research, (2) a methods component that helps students build a "toolbox" of essential qualitative and quantitative research methods, and (3) a project component in which students use their knowledge of HRI principles and methods to conduct a complete research inquiry, which encompasses posing a novel HRI research question, designing an empirical experiment, collecting and analyzing data, and reporting their findings.

CSCI 4830/7000-007 / ATLS 4519/5519 Introduction to Virtual Reality

Fall 2015, 2016, & 2017
Enrollment: 40 – 50

Overall Instructor Evaluation: 5.8/6.0

I designed and taught a combined undergraduate/graduate course to introduce students to the field of virtual reality. The course involves two key components: (1) developing an understanding of the fundamental principles of virtual reality such as presence, immersion, and engagement and (2) building technical skills for developing virtual reality applications using modern methods and tools, including WebGL and Unity. The course offers students an entry-level introduction to computer graphics and virtual reality using a combination of lectures, hands-on exercises, and team project assignments.

University of Wisconsin–Madison

CS302 Introduction to Programming

Summer 2011
Enrollment: 88

Overall Instructor Evaluation: 4.19/5.00 (47 responses)

I taught a summer section of an introductory programming course in Java. I was responsible for all aspects of the course including developing and delivering lectures, exams, and assignments and supervising TA graders.

CS302 Introduction to Programming

Fall & Spring 2010 – 2012

Overall Instructor Evaluation: 4.84/5.00 (65 responses)

Enrollment: 20 – 25

I taught four semester-long sections (~23 students/section) of an introductory programming course in Java. Responsible for preparing and presenting lectures, grading, and shared development of assignments and exams with other instructors. I received two awards for excellence in undergraduate education for my work in this course.

Advising & Mentoring

Ph.D. Student Advisees

2017 – Present **Connor Brooks**
Department of Computer Science, University of Colorado Boulder

2017 – Present **Daniel Prendergast**
Department of Computer Science, University of Colorado Boulder

2016 – Present **Madhur Atreya**
ATLAS Institute, University of Colorado Boulder
Co-advising with Mark Gross (CS/ATLAS)

2016 – Present **Hooman Hedayati**
Department of Computer Science, University of Colorado Boulder

2016 – Present **Michael Iuzzolino**
Department of Computer Science, University of Colorado Boulder
Co-advising with Danielle Albers Szafir (Information Science)

M.S. Student Advisees

2016 – Present **Bo "Bryan" Cao**
Department of Computer Science, University of Colorado Boulder

2016 – Present **Jordan Peters**
Department of Computer Science, University of Colorado Boulder

2016 – Present **Rohit Raje**
Department of Computer Science, University of Colorado Boulder

2016 – Present **Michael Walker**
Department of Computer Science, University of Colorado Boulder

Undergraduate Student Advisees

2016 – Present **Meredith Burgess**
Department of Computer Science, University of Colorado Boulder

2015 – Present **Catherine Diaz**
Department of Computer Science, University of Colorado Boulder
Lead author of ISMAR 2017 publication while an undergraduate

Graduated and Past Advisees

2015 – 2016 **Brandon Barrett**
Department of Computer Science, University of Colorado Boulder

Ph.D. Thesis Committee Member

2015 – Present **Darren Guinness**
Department of Computer Science, University of Colorado Boulder
Adviser: Shaun Kane
Dissertation Title: *TBD*

2015 – Present **Stephen McGuire**
Department of Aerospace Engineering Sciences, University of Colorado Boulder
Adviser: Nisar Ahmed
Dissertation Title: *TBD*

2016 **Christine Fanchiang**
Department of Aerospace Engineering Sciences, University of Colorado Boulder
Adviser: David M. Klaus
Dissertation Title: *A Quantitative Human Spacecraft Design Evalaution Model for Assessing Crew Accommodation and Utilization*

M.S. Thesis Committee Member

2017 **Rebecca Cox**
Department of Computer Science, University of Colorado Boulder
Adviser: Nikolaus Correll
Dissertation Title: *Merging Local and Global 3D Perception for Robotic Grasping and Manipulation*

2017 **John Lammie**
Department of Computer Science, University of Colorado Boulder
Adviser: Nikolaus Correll
Dissertation Title: *Gesture Recognition in Robotic Skin with Pressure and Proximity Information*

Professional Activities & Service

Program Committee Work

2017 **Videos and Demonstrations Tracks Co-Chair**
ACM/IEEE International Conference on Human-Robot Interaction (HRI)

2016 – Present **Program Committee Member**
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2018
Robotics: Science and Systems (RSS), 2017
ACM SIGCHI Conference on Human Factors in Computing Systems (CHI), 2017
IEEE Symposium on Robot and Human Interactive Communication (RO-MAN), 2016 & 2017
IEEE International Workshop on Advanced Robotics and its Social Impacts (ARSO), 2016

2014 – Present **Workshop Program Committee Member**
RSS Workshop on *Bridging the Gap in Space Robotics*, 2017
RSS Workshop on *HRI for Small and Personal Unmanned Aerial Vehicles*, 2016
HRI *Pioneers Workshop*, 2015
AAAI ITS Workshop on *Utilizing EEG Input in Intelligent Tutoring Systems*, 2014

2015 **Panel Chair**
HRI Pioneers at the ACM/IEEE International Conference on Human-Robot Interaction (HRI)

Referee Service

2016 **Funding Agency Panelist**
National Science Foundation (NSF)

2016 **Funding Agency Panelist**
National Aeronautics and Space Administration (NASA)

2016 & 2017 **Funding Agency External Reviewer**
National Science Foundation (NSF)

2012 – Present **Referee for Journal Articles**
International Journal of Robotics Research (IJRR)
ACM Transactions on Computer-Human Interaction (TOCHI)
ACM Transactions on Interactive Intelligent Systems (TiiS)
IEEE Transactions on Human-Machine Systems (THMS)
IEEE Transactions on Affective Computing (TAC)
IEEE Robotics and Automation Magazine (RAM)

2012 – Present **Referee for Conference Proceedings**
ACM/IEEE International Conference on Human-Robot Interaction (HRI)
ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)
ACM SIGCHI Symposium on User Interface and Software Technology (UIST)
ACM SIGCHI Conference on Designing Interactive Systems (DIS)
IEEE International Conference on Robotics and Automation (ICRA)
IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)
Robotics: Science and Systems Conference (RSS)
IEEE International Symposium on Mixed and Augmented Reality (ISMAR)
International Symposium on Robotics Research (ISRR)
Special Recognition for exceptional reviews: CHI 2016 (2 reviews), DIS 2016, UIST 2016

University Service

2017 – Present **Executive Committee**
ATLAS Institute, University of Colorado Boulder

2017 – Present **Computing Curriculum Committee**
ATLAS Institute, University of Colorado Boulder

2016 – Present **CU Boulder Human-Computer Interaction Consortium (HCIC) Committee**
University of Colorado Boulder

2016 – Present **Faculty Adviser**
Virtual Reality Club, University of Colorado Boulder

2015 – Present **Graduate Program Committee**
ATLAS Institute, University of Colorado Boulder

2016 – 2017 **Faculty Search Committee**
Department of Computer Science, University of Colorado Boulder

2016 – 2017 **Faculty Search Committee**
ATLAS Institute, University of Colorado Boulder

2016 – 2017 **Faculty Inclusive Excellence Team**
BOLD Center, University of Colorado Boulder

2016 – 2017 **Undergraduate Program Committee**
Department of Computer Science, University of Colorado Boulder

2015 – 2016 **Graduate Program Committee**
Department of Computer Science, University of Colorado Boulder

External Research Service

2017 **Workshop Organizer: *Bridging the Gap in Space Robotics***
Workshop at the 2017 Robotics: Science and Systems (RSS) Conference
Co-organizers: Christoffer Heckman (CU Boulder), Nisar Ahmed (CU Boulder), and Jay McMahon (CU Boulder)

2016 **Public Safety Communications Research (PSCR) User Interface R&D Working Group**
National Institute of Standards and Technology (NIST) and the National Telecommunications and Information Administration (NTIA)

2014 **Student Volunteer**
ACM/IEEE International Conference on Human-Robot Interaction (HRI)

Volunteering & Outreach

2017 **High School Outreach & Mentoring**
Worked with a high school student from the Dawson School, enabling the student to gain research experience while completing a senior project as a lab intern

2017 **Middle School Outreach**
Worked with teachers from the Logan School to create program for 11 middle school students to visit university research labs as part of STEM enrichment program

2016 – 2017 **Hosted Lab Visits**
Hosted open lab event for the public as part of National Robotics Week
Hosted open lab events for the public as part of annual ATLAS Expo

2015 – 2017 **Recruitment Representative**
Hosted "Robotics" table for graduate recruiting at CS Recruitment Day event

2016 **Computer Science Promotional Material Development**
Led creation of promotional video highlighting the University of Colorado Boulder Computer Science Department for use in graduate recruiting and department advertising.

2013 – 2014 **Grandparents University Instructor**
University of Wisconsin-Madison
Taught two sessions (~20 students/session) of a "Social Robotics" major to grandparents and grandchildren. Course used hands-on activities, multi-media presentations, and Lego Mindstorms robots to teach programming and robotics to young and senior students.

Professional and Academic Memberships

Association for Computing Machinery (ACM)

Institute of Electrical and Electronics Engineers (IEEE)

Phi Beta Kappa Honor Society

Alpha Sigma Nu Jesuit Honor Society

Phi Alpha Theta National Historical Honor Society

Golden Key International Honor Society

Michael Theodore
Associate Professor of Music Composition and Technology
University of Colorado, Boulder
Campus Box 301
Boulder, Colorado 80309
michael.theodore@colorado.edu
303-492-8523

EDUCATION:

University of California, San Diego. Ph.D.,	1998
Yale School of Music. M.M., music composition.	1994
Amherst College. B.A., summa cum laude.	1991
New England Conservatory. (Junior Year)	1988-1989

PRINCIPAL TEACHERS:

Roger Reynolds, Miller Puckette, Betsy Jolas, Jacob Druckman,
Martin Bresnick, Jonathan Berger, Malcolm Peyton, Lewis Spratlan

ADMINSTRATIVE EXPERIENCE:

Director, Center for Media, Arts, and Performance, ATLAS Institute
2009-present

TEACHING EXPERIENCE:

University of Colorado, Boulder:	
Assistant Professor of Music Composition and Technology,	1998-2005
University of Colorado, Boulder:	
Associate Professor of Music Composition and Technology,	2005-Present
University of California, San Diego:	
Teaching Assistant, various technology and theory courses,	1995-1998
Amherst College:	
Assistant Choral Director	1991-1992

SELECTED WORKS, EXHIBITIONS, PERFORMANCES AND SCREENINGS:

(title of presented work in bold)

are you me? (public art commission, Boulder, Colorado	2017
micro/macro (solo show, Galleries of Contemporary Art Colorado Springs, Colorado)	2016
Supraliminal (solo show, David B. Smith Gallery)	2016
sensor messenger ii (Longmont Museum)	2015
Substrate (Boulder Museum of Contemporary Art)	2015
Summer Mixer (group show, Joshua Liner Gallery, NYC)	2014
Organism/Mechanism (solo show, David B. Smith Gallery)	2013
Field Theory (solo show at CU Art Museum)	2012

Machinic Autohallucination 2011
Psychoangelo/Panauromni (commercial recording, Innova) 2010
Dwelling, for violin, electronics, and dance 2010
Revery in the Finale Rack (for piano and electronics) 2010
What I Saw At The Apocalypse (evening length work for 40 performers) 2009

The Objectification of Things (Boulder, Miami, Houston) 2008
Woolgathering, for orchestra and animation 2007
Woolgathering II, for alto flute, viola and computer 2007
Night, 2007 (moving images and music) NWEAMO, 2007 2007
In There Giessen, Germany 2007
Color Dream No. 246 CynetArt Festival, Dresden, Germany 2007
Color Dream No. 246 Seoul International Film Festival, Seoul, Korea 2007
After All Gallery of Contemporary Art, Colorado Springs, Co. 2007
Color Dream No. 246 ArtFutura, Barcelona, Spain 2006
Color Dream No. 246 SIGGRAPH, Boston 2006
After Brakhage Visual Music Festival, Boston 2006
Color Dream No. 246 New Music and Art Festival, Ohio 2006
Book of Kells Mountain Computer Music Festival, Missoula 2006
A Conversation With Death Spark Festival, Minneapolis 2006
A Conversation With Death Tractor, Seattle 2006
A Conversation With Death Mississippi Studios, Portland 2006
A Conversation With Death SEAMUS, Eugene, Oregon 2006
A Conversation With Death Cedar Cultural Center, Mpls. 2006
A Conversation With Death NWEAMO, New York 2006
A Conversation With Death Newport Folk Festival 2006
After Brakhage GMEM, Marseilles, France 2006
Salt Machines CU, Boulder, ATLAS 2006
In There The Julliard School, New York City 2005
In There The New School, New York City 2005
Daisy Bone The New School, New York City 2005
After Brakhage ICMC, Barcelona, Spain 2005
After Brakhage Not Still Art Festival, Brooklyn 2005
The Monkey Saddle multimedia theater work, On The Boards, Seattle (6 performances) 2005
The Monkey Saddle Diverseworks, Houston (2 perormances) 2005
Sivel ICMC festival, Miami 2004
Sivel Multimedia Concert, Central Conservatory, Beijing, China 2004
Trumpetspeak SEAMUS Conference, San Diego 2004
Trumpetspeak Bonk Festival, Tampa 2004
Trumpetspeak CEAIT Festival, Los Angeles 2004

The Lesbian Dancer short film/multimedia work, Centro Nacional del las Arts Torres de Multimedia, Mexico City, Mexico 2004
The Lesbian Dancer Universidad de Guadalajara, escuela de danza Folklorica, Guadalajara, Mexico 2004
The Lesbian Dancer Channel 23 Red del las Arte, Mexico 2004
The Lesbian Dancer CCA7, Trinidad y Tobago 2004
After Brakhage Symphony Space, New York 2004
The Prairie Dog Mothers: Mothers performance multimedia work American College Dance Festival, Colorado 2004
Trumpetspeak NWEAMO Festival, San Diego 2003
Four Out improvising ensemble and computer, CU Colorado Springs 2003
The Lesbian Dancer short film/multimedia work, Northampton Independent Film Festival 2003
The Prairie Dog Mothers performance/multimedia work, Center for Humanities, CU Boulder 2003
Goatsong ICMC, Göteborg, Sweden 2002
Goatsong NWEAMO Festival, Portland 2002
Poem #4 a work for sound and video, Naropa University 2002
Poem #4 Perseverance Theatre, Juneau, Alaska 2002
Two Hammers Pendulum Concert Series, CU Boulder 2002
Wave Machines commisioned by the Left Coast Ensemble, San Franscisco, Ca. 2001
Two Hammers Amherst College 2001
Soda (dance, sound and video) Western Dance Festival, Colorado 2001
If Not One and One Telluride Experimental Film Exposition 2000
Whorls ICMC, Berlin, Germany 2000
Whorls Festival of New American Music, California 1999
Whorls Subtropics Festival, Miami, Florida 1999
Trio For Horn, Violin and Piano New Julliard Ensemble 1999
Namshub Sonor Ensemble 1998
Hilbert's Caverns Kunitachi School, Toyko, Japan 1997
Pssshhhh Kunitachi School, Toyko, Japan 1997
Trio For Horn, Violin and Piano Speculum Musicae, New York City 1997
Pssshhhh Emerging Voices Festival, San Diego 1997
Hilbert's Caverns ICMC, Thessaloniki, Greece 1997
Trio For Horn, Violin and Piano Alice Tully Hall, Lincoln Center, New York 1996
Bitophony Contours of the Mind, Canberra, Australia 1995

LIST OF PRESENTING OR COMMISSIONING ORGANIZATIONS:

Speculum Musicae, New Julliard Ensemble, Left Coast Ensemble, Asparagus Valley Contemporary Music Ensemble, Steven Schick / Maya Beiser Duo, On the Boards Theatre, DiverseWorks Theatre, Perseverance

Theatre (Alaska), International Computer Music Association (Thessaloniki, Greece. Göteborg, Sweden. Berlin, Germany. Miami), Society of Electro-acoustic Music United States (Denton, San Diego), New West Electro-Acoustic Music Organization (Portland, San Diego, New York), Focus! Festival (Julliard School), Bonk Festival, CEAIT Festival, Festival of New American Music, Subtropics Festival, Emerging Voices Festival, Contours of the Mind Festival (Canberra, Australia), Centro Nacional del las Arts Torres (Mexico City, Mexico), Universidad de Guadalajara (Guadalajara, Mexico), Channel 23 Red del las Arte (Mexico), CCA7 (Trinidad y Tobago), Western Dance Festival (Colorado), Telluride International Experimental Film Exposition, Northampton Independent Film Festival, Beijing Central Conservatory, Kunitachi College (Toyko, Japan), Boulder Museum of Contemporary Art, ArtFutura (Barcelona), GMEM, Centre National de création musicale (Marseille), SIGGRAPH (Boston), Cla-Zel Theatre (Bowling Green, Oh), Newport Folk Festival

AWARDS:

Leap Award for Production of New Work ($2000) 2010
CU-Boulder Provost Faculty Achievement Award 2009
President's Fund for the Humanities 2004
(approximately $5000 awarded for purchase of hardware and software to be used in the creation of "The Monkey Saddle")
Eric Siday Music Creativity Award 2002
(chosen by the ICMA from over 400 international submissions)
Nominated for **Lili Boulanger International Composition Award** 2001
University of Colorado, **grants in aid** for various projects 1998-2004
UCSD **Regents Grant** 1994-1998
ASCAP **Young Composers Award**, finalist (for "Whorls") 1998
ASCAP **Young Composers Award** (for “19 & 1”) 1996
UCSD **Gluck** Composition award (fellowship) 1994
Yale **Kellogg** prize (for “Fu”) 1993
Amherst College **Composition** award 1991

COMMERCIAL RECORDINGS:

Yutani, Always Human Tapes 2015
Man XY, Always Human Tapes 2014
Michael Theodore + Ryan Wurst, Always Human Tapes 2014
Psychoangelo Innova 2010
Goatsong, LJ Records, Sweden 2002

Qwfwq (After Italo Calvino), EMF Media 1998

PUBLICATIONS:

"Altiverb Reverberation Software", software review, *The Computer Music Journal, Vol 28., no.2*, MIT Press 2004

Propellerheads ReCycle!, Rebirth and Reason software", software review, *The Computer Music Journal, Vol 27., no. 2*, MIT Press 2003

"Virtual Music", book review, *The Computer Music Journal*, *Vol 26., no 4*, MIT Press 2002

"The Algorithmic Composer", book review, *The Computer Music Journal, Vol 25., no. 2*, MIT Press, 2001