

# Laura Devendorf

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## 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 printmaking.

## PUBLICATIONS

- Refereed Conference Papers [Laura Devendorf](#), Kristina Andersen, Daniela Rosner, Ron Wakkary, James Pierce. 2019. "From HCI to HCI-Amusement: Strategies for Engaging what New Technology Makes Old" To appear at the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)
- Mikhaila Friske, Shanel Wu, [Laura Devendorf](#). 2019. "AdaCAD: Crafting Software for Smart Textiles Design." To appear at the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)
- [Laura Devendorf](#), Chad Di Lauro. 2019. "Adapting Double Weaving and Yarn Plying Techniques for Smart Textiles Applications" In *Proceedings of the 2019 Conference on Tangible and Embodied/Embedded Interaction* (TEI '19).
- Jen Liu, Daragh Byrne, [Laura Devendorf](#). 2018. "Design for Collaborative Survival: An Inquiry into Human-Fungi Relationships." In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18). **Best Paper Award**
- Noura Howell, [Laura Devendorf](#), Tomás Vega Gálvez, Rundong (Kevin) Tian, Kimiko Ryokai. 2018. "Tensions of Data-Driven Reflection: A Case Study of Real-Time Emotional Biosensing." In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18).
- [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.
- [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.

## PUBLICATIONS CONTINUED

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. “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**

Extended  
Abstracts

Josephine Klefeker and Laura Devendorf. “String Figuring: A Story of Reflection, Material Inquiry, and a Novel Sensor” To appear in *Proceedings of the 36th Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '18)

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

James Pierce, Kristina Andersen, Andy Boucher, David Chatting, Audrey Desjardins, Laura Devendorf, William Gaver, Tom Jenkins, William Odom, Anna Vallgård. “Doing Things with Research thru Design: With What, with Whom, and Towards What Ends?” In *Proceedings to 2019 CHI Conference Extended Abstracts on Human Factors in Computing Systems*

Austin Toombs, Laura Devendorf, Patrick Shih, Elizabeth Kaziunas, David Nemer, Helena Mentis, Laura Forlano. “Sociotechnical Systems of Care.” In *Companion of the 2018 Conference on Computer Supported Cooperative work and Social Computing* (CSCW '18)

Laura Devendorf. Speculative Exoskeletons for Caregiving. Hosted at the Boulder Museum of Contemporary Art in conjunction with the annual Media Live exhibition. May 2018.

Kristina Andersen, Laura Devendorf, James Pierce, Daniela K. Rosner, Ron Wakkary. “Disruptive Improvisation: Making Use of Non-Deterministic Art Practices in HCI ” In *Proceedings of the 2018 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '18).

Stefanie Mueller, Laura Devendorf, Stelian Coros, Yoichi Ochiai, Madeline Gannon, Patrick Baudisch. “CrossFAB: Bridging 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

Casey Fiesler, William Aspray, Lecia Barker, Jed Brubaker, Laura Devendorf, Brian Keegan, Leysia Palen, Michael Paul, Danielle Szafir, Ricarose Roque, Rick Robinson, Amy Volda, and Stephen Volda. 2017. Information science at CU Boulder. *interactions* 24, 4 (June 2017), 18-21.

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.

## RESEARCH GRANTS AND GIFTS

2018 **Developing Next-Generation Rapid Prototyping Tools to Catalyze Innovation in Smart Textiles**  
PI: Laura Devendorf  
National Science Foundation Research Initiation Initiative (NSF CISE CRII)  
Award #1755587, \$173,686 (+\$24,000\*), May 2018 - August 2019  
*\*I applied for a Research Experience for Undergraduates (REU) Supplement to this grant, which added an additional \$24,000 to support 2 undergraduate researchers on the project.*

## RESEARCH GRANTS AND GIFTS CONTINUED

### **Establishing an Experimental Weaving Residency to Bridge Art and Engineering**

Co-PIs: Laura Devendorf, Steven Frost

Center for Craft Creativity and Design, Materials Based Research Grant

\$7240, September 2018 - August 2019

### **Prototyping Support for Multi-Functional Textiles Research**

PI: Laura Devendorf, Co-PI: Allison Anderson

Multifunctional Materials Interdisciplinary Research Theme Seed Grant

\$15,000

2017 **Weaving Disciplines: Fostering Productive Relationships between Arts and Engineering**

PI: Laura Devendorf

CU Boulder Research and Innovation Office Conference Grant

\$1000

## TEACHING

2017-2018 **ATLS 4529/5529: Critical Technical Practice**

A small design research course I developed and teach to undergraduate and graduate students.

2017-2018 **INFO 1121: Interactions Studio and Seminar**

A large freshman/sophomore level introduction to interaction design.

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.

## INVITED TALKS & PANELS

2018 *Fiber Futures*

Accenture Labs Distinguished Lecture Series

*Design and Fabrication of Smart Textiles*

Dagstuhl Seminar on Computational Aspects of Fabrication

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

## **INVITED TALKS & PANELS CONTINUED**

- 2014 *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
- 2013 *The Algorithm Multiple, the Algorithm Material*  
Contours of Algorithmic Life Symposium. UC Davis (with Elizabeth Goodman)
- 2012 *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 ACTIVITIES**

### **Program Committee Member**

Pictorials Chair, ACM SIGCHI Conference on Designing Interactive Systems, 2018  
Technical Chair, Symposium on Computational Fabrication, 2018

### **Associate Chair**

ACM SIGCHI Conference on Designing Interactive Systems, 2017-2018

### **Journal Reviewer**

Design Issues, Digital Creativity, Interacting with Computers

### **Grant Reviewer**

National Science Foundation, Directorate on Computer & Information Science & Engineering

