

# SOPHIA BRUECKNER

## CURRICULUM VITAE

Assistant Professor  
Stamps School of Art & Design  
University of Michigan - Ann Arbor

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### EDUCATION

MS, Media Arts and Sciences, 2014  
Massachusetts Institute of Technology, Cambridge, MA  
Advisor: Pattie Maes  
Thesis: *Out of Network: Technologies to Connect with Strangers*

MFA, Digital + Media, honors, 2012  
Rhode Island School of Design, Providence, RI  
Advisor: Kelly Dobson  
Thesis: *Enraptured & Encoded*

Sc.B. Applied Mathematics/Computer Science, magna cum laude, 2005  
Brown University, Providence, RI

### PROFESSIONAL EXPERIENCE

- 2015-      Assistant Professor, Stamps School of Art & Design, University of Michigan, Ann Arbor, MI  
              With a courtesy appointment in the School of Information and an affiliation with Digital  
              Studies.
  
- 2014        User Experience Designer, Otsuka Pharmaceutical, 2014  
              Designed sci-fi-inspired hardware and software experience of a new health technology  
              (research, interaction design, and CAD).
  
- 2013-14    Instructor, MIT Media Lab, Cambridge, MA
  
- 2014        Instructor, Rhode Island School of Design, Providence, RI
  
- 2012-14    Research Assistant, MIT Media Lab, Cambridge, MA  
              Fluid Interfaces Group with advisor Pattie Maes.
  
- 2011-12    Instructor of Record, Rhode Island School of Design, Providence, RI
  
- 2011-12    Research Assistant, Rhode Island School of Design, Providence, RI  
              With advisor Kelly Dobson.
  
- 2011-12    Instructor of Record, Rhode Island School of Design, Providence, RI

- 2011 Software Engineer Intern, Google Research, Cambridge, MA  
Worked with Martin Wattenberg and Fernanda Viégas on an experimental data visualization project.
- 2010 Software Engineer Intern, Google Research, Mountain View, CA  
Worked with then CEO Eric Schmidt and Java founder Joshua Bloch to design and implement an experimental software prototype.
- 2005-08 Software Engineer, Google, Mountain View, CA  
Front-end development and UX design of iGoogle, Google's personalized homepage (22.5 million users and 20% of all visits to Google's homepage in 2008). Designed and wrote some of the most popular iGoogle apps (millions of users). Worked closely with business partners including CBS, the New York Times, Sports Illustrated, Entertainment Weekly, the Wall Street Journal, and others on iGoogle apps.
- 2001-02 Research Assistant, Brown Department of Engineering, Providence, RI  
Researched thin films in materials science/mechanical engineering departments.

## AFFILIATIONS

- 2017- Association of Professional Futurists
- 2016- Courtesy Appointment, School of Information, University of Michigan
- 2016- Digital Studies Affiliation, University of Michigan
- 2013- Fellow, The Dalai Lama Center for Ethics and Transformative Values

## AWARDS AND HONORS

- 2017 Artist in Residence, Autodesk Pier 9, Feb 1-Jul 31, San Francisco, CA
- 2016 \$100k grant from National Academies Keck Futures Initiative for Global Heartbeat Project with Kentaro Toyama  
#whitemirror, invited sci-fi event on positive futures, Los Angeles, CA  
Ars Electronica Future Innovators Summit, Linz, AT  
BMW rad°hub, invited design/futures event, Los Angeles, CA  
Nominated for University of Michigan's Golden Apple Teaching Award  
University of Michigan Road Scholar  
Juror, Bowling Green State University Undergraduate Exhibition, Bowling Green, OH  
Artist Collaboration with Art and Machine Intelligence team in Google Research, (Funding cut; award not disbursed)
- 2015 Eyeo Festival Artist Fellow  
Signal Culture Toolmaker Residency, NY
- 2014 MIT Harold and Arlene Schnitzer Prize in the Visual Arts, 2nd place  
Anne and Michael Spalter collection acquires *Eye of the Beholder*
- 2012 \$4k Turbulence.org networked art commission with Catherine D'Ignazio
- 2011 RISD graduate fellowship and assistantship  
National Science Foundation grant for AVAToL Ideas Lab
- 2010 RISD graduate fellowship and assistantship
- 2008 Google's EMG (Executive Management Group) Impact Award for outstanding innovation on iGoogle

## SELECTED EXHIBITIONS

- 2017 *Technarte Los Angeles 2017, CA*  
The *Embodisuit* was 1 of 6 selected from an international call for work related to wearable technology.
- ISEA 2017: Bio-Creation and Peace*, Art Museum of Caldas, Manizales, Colombia
- The Jump Off*, Urban Institute of Contemporary Art, Grand Rapids, MI  
Curated by UICA's Exhibitions Curator, Heather Duffy, from a national call for work.
- HASTAC 2017*, Orlando, FL  
*Embodisuit* in *The Wearable and Tangible Possible Worlds of Digital Humanities* exhibition curated by Jacqueline Wernimont and Kim Knight.
- Not of This Earth: Contemporary Art and Science Fiction*, Boston Cyberarts Gallery, Boston, MA  
Curated by Boston Cyberarts director George Fifield and Michael Lewy.
- Body Politic*, OPEN Gallery, Boston, MA  
Curated by Laura Zittrain.
- eTextile Summer Camp*, Paillard Centre d'Art Contemporain & Résidence d'Artistes, Poncé sur le Loir, France  
Exhibited *Embodisuit* at annual gathering of leaders in wearable technology and eTextiles.
- #EXSTRANGE*, Project Anywhere  
Curated by Rebekah Modrak and Marialaura Ghidini.
- Liverpool MakeFest*, Liverpool Central Library, UK  
Exhibited *Embodisuit*.
- Google International Women's Day Summit*, Cambridge, MA  
Invited to exhibit three software-based artworks.
- Pier 9 Showcase*, Autodesk, San Francisco, CA
- 2016 *Science and Technology by Other Means*, 4S/EASST, Hangar, Barcelona, ES  
Curated by Anita Chan.
- CreateWorld 2016: The Creativity of Things*, Webb Gallery, Brisbane, AU  
Invited participant in group exhibition for the CreateWorld conference.
- 2015 *Shaker Traditions Contemporary Translations*, Canterbury Shaker Village, NH  
Curated by museum executive director Funi Burdick.
- + / - , Joseloff and Slipe Galleries, Hartford Art School, CT  
Curated by Boston Cyberarts director George Fifield.
- Altered Books: Digital Interventions*, SIGGRAPH, CA  
Curated by Copper Giloth and Hye Yeon Nam.
- Signal from Noise*, CCS Galleries and Hessel Museum of Art, Bard College, NY  
Curated by Elizabeth Larison.
- Stimulus – Response – Affect*, Oakland University, MI  
Curated by Colleen Ludwig and Vagner Whitehead.

*Print Screen International Digital Culture Festival*, Holon Cinematheque, Israel  
Curated by Liat Berdugo.

*LISTENING: An irregular evening of Music, Poetry, and Radiophonic Art*, The Lilypad, Cambridge, MA  
Curated by Connor Gillies and Audrey Mardavich.

2014 *Sound/System*, Peabody Essex Museum, Salem, MA

Schnitzer Prize Exhibition, Wiesner Art Gallery, MIT, Cambridge, MA

*Crossover*, Boston Cyberarts Gallery, Boston, MA  
Curated by Boston Cyberarts director George Fifield, catalogue.

*OPENSIGNAL Festival*, Brown University, Providence, RI  
Sound installation, curated by the OPENSIGNAL artist collective.

*COLLISION20: bilocate*, Boston Cyberarts Gallery, Boston, MA  
Curated by William Tremblay and Georgina Lewis.

*The Emperor's New Aesthetic*, Emmanuel Gallery, Denver, CO  
Curated by David Fodel and Matt Jenkins.

2013 *Paper to Pixels*, Infrared5, Boston, MA  
Curated by Infrared5 CEO and Creative Director Rebecca Smith Allen.

*Video Snack*, Bogart Studios, Brooklyn, NY  
Curated by Lauren Francescone.

*Phases*, Boston Harbor Islands Pavilion, Boston, MA  
Software installation at national park welcome center located in Boston's Rose Kennedy Greenway, curated by Boston Cyberarts director George Fifield.

*iSkyTV*, Turbulence, <http://www.turbulence.org>  
Networked art commission from Turbulence with Catherine D'Ignazio.

Media Lab @ SXSW Interactive event/exhibition with my sci-fi students, Austin, TX

*The Other Festival*, MIT Media Lab, Cambridge, MA

*Circumtext*, Fictilis, Portland, OR  
Curated by Andrea Steves and Timothy Furstnau.

2012 *#101112*, Spacebar Gallery, Linz, AT  
Curated by Nina Wehnert.

*Brunel Electronic and Analogue Music (BEAM) Festival*, London, UK  
Curated by Atau Tanaka.

*Showcase / The Thesis Book*, Sol Koffler Gallery, Providence, RI  
Curated by Anne West.

*RISD MFA Thesis Show*, Providence, RI

*COLLISION17:transformer*, AXIOM Center for New and Experimental Media, Boston, MA  
Curated by William Tremblay and Georgina Lewis.

*From This Point Forward*, Gelman Gallery, Providence, RI  
Curated by Paloma Barhaugh-Bordas and Genevieve Lowe.

*Fonlad Digital Arts Festival*, Portugal  
Curated by José Vieira.

*SONiKFest*, Brooklyn, NY  
Curated by Mitsu Hadeishi and Seyhan Musaoglu.

*The First Show*, Multiplexer, Las Vegas, NV  
Curated by David Sanchez Burr.

*Transceiver*, Bemis Center for Contemporary Art, Lincoln, NE  
Curated by Angeles Cossio, Jeff Thompson, and Joel Damon.

*Transceiver*, Drift Station Gallery, Lincoln, NE  
Curated by Angeles Cossio, Jeff Thompson, and Joel Damon.

*Mediated Realities*, Cohen Gallery, Granoff Center, Providence, RI  
Curated by J. Susie Hwang.

*Come Here, I Need You*, Gelman Gallery, Providence, RI  
Curated by Amanda Thackray and Rain Vasquez.

*Older Than Bambi*, Sol Koffler Gallery, Providence, RI

basic.fm April radio programme, The Pixel Palace, UK

*Mirror Images*, Kreft Gallery, Ann Arbor, MI  
Juried by Gallery Project Directors Gloria Prischet and Rocco DePietro.

*Or a Motel*, EiM Gallery, Toronto, Canada  
Curated by Eric Powell and Matt Griffin.

**2010** *GLI.TC/H*, Amsterdam, NL  
Curated by Nick Briz, Rosa Menkman, Jon Satrom, and Evan Meaney.

*GLI.TC/H*, Chicago, IL  
Curated by Nick Briz, Rosa Menkman, Jon Satrom, and Evan Meaney.

*Chopped & Stretched*, Drift Station Gallery, Lincoln, NE  
Curated by Angeles Cossio and Jeff Thompson,

*On the Threshold of Something Else, Something Other...*, Sol Koffler Gallery, Providence, RI  
Curated by Tamara Johnson.

**2009** *Framed*, solo show at Scout, Santa Cruz, CA  
Three curated group exhibitions at Cabrillo College, Santa Cruz, CA

## SELECTED PRESS

- 2017 College Art Association Education Podcast, interview on using sci-fi in design education  
*Inc.*, [Want to Future-Proof your Career?](#)  
*Emergence*, Stamps School magazine, [Sophia Brueckner on Tech, Humanity, Futures](#)  
*The Michigan Daily*, [Dreamers and Disruptors at TEDxUofM](#)  
*Upload VR*, [White Mirror: A Positive Vision for the Future of Technology](#)
- 2016 *APEX Experience* magazine, [Narrative Devices: What Can IFE Learn From Sci-Fi?](#)
- 2015 *Wired*, [How to Use GIFs to Teach Computers About Emotions](#)  
*Hackaday*, [Play Music With Your Painting](#)  
*Synthopia*, [Sophia Brueckner's Touch Sensitive Musical Painting](#)  
*Hartford Courant*, [Cutting-Edge Tech Sculpture Exhibit at University of Hartford Gallery](#)
- 2014 *Smithsonian Magazine*, [How America's Leading Science Fiction Authors are Shaping Your Future](#)  
*Los Angeles Times*, [The MIT Media Lab Class That Makes Science Fiction Real](#)  
*Scientific American*, [Students Combine Arts and Science While Exploring "Transhumanism"](#)  
*Fast Company*, [Take Note, Facebook: How Colleges Are Training Designers To Treat Users Like More Than Lab Rats](#)  
*Huffington Post*, [When Science Fiction Gets Real](#)  
*Fast Company*, [Mad Scientist 101: A New MIT Class Aims To Turn Science Fiction Tech Into The Real Thing](#)  
*The Creators Project*, [Brown, MIT, And RISD Are Implanting Art Into Their Transhumanist Experiments](#)  
*Chicago Tribune*, [Why Sci-Fi is Obsessed with the Near Future](#)  
*The Harvard Crimson*, [Motion Picture](#)  
*Fast Company*, [From MIT, An Interactive Book That Makes You Feel Character's Pain](#)  
*Rhizome*, [Locative Media Revisited](#)  
*MIT News*, [MIT students win annual Schnitzer Prize in the visual arts](#)  
*Boston Magazine*, [What If Books Physically Replicated the Protagonist's Emotions?](#)  
*Providence Business News*, R.I., Mass. students collaborate on STEAM
- 2013 *The Atlantic*, [Why Today's Inventors Need to Read More Science Fiction](#)  
*The Atlantic*, [The History of Invisibility Cloaks, as Told by People in the Future](#)  
*Wired*, [Science Fiction to Science Fabrication](#), Bruce Sterling  
*io9*, [At MIT, engineers are taught that scifi is crucial to do good science](#)  
*MIT Spectrum*, [Why Should Inventors Read Science Fiction?](#)  
*Studio 360*, WNYC, NPR, [At MIT, An Ethics Class for Inventors](#)  
*Digital Culture*, KPFK 90.7 FM, [Sci-Fi to Sci-Fab: Bringing Science Fiction to Inventors](#)  
*Sky News*, UK, TV interview  
Digital Village Radio  
*The Shift*, CKNW, Vancouver  
*WGN Radio*, Chicago  
*Newstalk Radio Ireland*  
*Wisconsin Radio News*, WTMJ  
*Ripley's Believe It or Not*  
*Wait, Wait, Don't Tell Me*, NPR
- 2012 *KVNO News*, [WEB EXTRA: Bemis Underground's Transceiver: Drift Station](#)  
*The Reader*, [Lincoln Calling](#)

## INVITED TALKS

- 2017 TEDx, 1 of 8 invited speakers, Ann Arbor, MI  
VergeNYC, Parsons School of Design, NYC  
Technarte Los Angeles 2017, CA  
ISEA 2017: Bio-Creation and Peace, Manizales, Colombia  
Carnegie Mellon University, Human Computer Interaction Institute Seminar Series, PA  
Rhode Island School of Design, Digital + Media, visiting artist, RI

- Lenovo + Healthdesignby.us Innovation Co+Lab, University of Michigan  
Emergent Research Series, University of Michigan Library
- 2016 Pratt Institute, Digital Arts Lecture Series, NYC  
Critical Making and Body Politics, panelist, School of Information, University of Michigan  
MISC, School of Information, University of Michigan  
Digital Studies, University of Michigan
- 2015 STS Mini-Conference, School of Information, University of Michigan  
Stimulus - Response - Affect, Oakland University, MI  
TechShop, Detroit, MI
- 2014 ReThinking Mindfulness, Massachusetts Institute of Technology, Cambridge, MA  
[@party demoparty](#), Cambridge, MA  
MassArt Dynamic Media, guest critic, Cambridge, MA  
RISD Digital + Media, guest critic, Providence, RI
- 2013 [LISA \(Leaders in Software and Art\)](#), the New School, NYC
- 2012 Artist lecture, Brown University, RI
- 2011 Rose Whelan Society for Women in Mathematics, panelist, Brown University, RI

## SCI-FI WORKSHOPS

- 2017 ISEA 2017: Bio-Creation and Peace, Manizales, Colombia  
SLSA 2017, Feminist Design Futures workshop with Irina Aristarkhova, Society for Literature, Science, and the Arts conference, Tempe, AZ
- 2016 Innovation, Economic Driver, Disruption: Utopias and Critiques of Making and Hacking, 4S/EASST, Barcelona  
FemTechNet Signal/Noise Conference, Ann Arbor, MI  
Augmented Human, School of Medicine/School of Information/Center for Entrepreneurship, University of Michigan
- 2013 Better World by Design Conference, Providence, RI

## OTHER TALKS

- 2017 Co-organized two salons on technology ethics at Autodesk Pier 9 with a diverse group of experts from the Bay Area.
- 2007-8 As one of the most popular iGoogle app developers in the world, I gave many Google Gadget API talks throughout the world including at Google Developer Day in Tokyo, Google Developer Night in Seoul, several universities in Japan, Google London, and Google Mountain View reaching thousands of developers.

## TEACHING

### Sci-Fi Prototyping

University of Michigan, Fall 2016, Fall 2017

Combining sci-fi, speculative futures, functional prototypes, and the ethics of design/invention.

### Digital Fabrication

University of Michigan, Fall 2015, Spring 2016, Fall 2016

CAD/CAM, laser cutting, 3D printing, 3D scanning, CNC milling, etc.

### Creative Programming

University of Michigan, Fall 2015, Spring 2016

Rhode Island School of Design, 2010-2012

Processing (Java) courses at U of M and workshops in RISD Foundation Studies and RISD Digital + Media.

### **Human + Computer**

Massachusetts Institute of Technology, Rhode Island School of Design, Brown, Wintersession 2014  
Wearables, human augmentation, and alternative communication devices. The course combined an introduction to the Arduino GSM module (used to make DIY cell phones), an overview of digital fabrication processes (laser cutting, CNC milling, 3d printing), critical and speculative design, and sci-fi readings culminating in an exhibition at RISD Exposé.

### **Science Fiction to Science Fabrication**

MIT Media Lab, Fall 2013

Science fiction, prototyping, and the ethics of design/invention for graduate students at the MIT Media Lab and Harvard.

### **Exploring Sci-Fi**

Rhode Island School of Design, Wintersession 2011

Designed syllabus and taught course combining science fiction, art theory readings, and studio work for graduates and undergraduates.

### **Integrative Project**

University of Michigan, 2017-2018

Yearlong senior project and thesis for Art & Design and Interarts students culminating in an exhibition and performances.

### **Fab Lab Technical Assistant, Haystack Mountain School of Crafts, Deer Isle, ME, 2013-2014**

Managed Haystack's Fab Lab and assisted instructors and students in applying digital fabrication processes (ShopBot, laser cutter, vinyl cutter, etc.) to traditional crafts.

### **Teaching Assistant, MIT, RISD, and Brown, 2001-2005, 2010-2013**

Classes taught: How To Make Almost Anything (digital fabrication and electronics production), Intro to Creative Programming (Processing), Intro to Algorithms and Data Structures, Javanese Gamelan, and Head TA for Advanced Algorithms.

## **SERVICE**

### **Facilities Committee, 2015-2017**

Building spaces to accommodate new technologies including digital fabrication studio, electronics, etc. as well as foster a collaborative maker culture.

### **AR/VR/MR Campus Steering Committee, 2016-2017**

Represented Stamps in university-wide effort to collaborate with industry in developing curriculum, supporting research, and building physical lab spaces such that U of M becomes a leader in the AR/VR/MR space.

### **Design Salon Committee, 2015-2017**

Organizing diverse salons to create research opportunities and increase Stamps' reputation in the field of design.

### **Creative Resources Committee, 2016-2017**

Supporting and increasing the visibility of the creative work and research of my colleagues.



### **Safety Committee, 2016-2017**

Maintaining a high level of safety standards and establishing new procedures with a particular focus on students safely learning to use equipment themselves.

### **Hiring Committee for Director of Duderstadt Center, 2016**

Interdepartmental committee to hire a director that supports interdisciplinary research, new technologies, and makerspaces.

### **Bicentennial Anniversary Committees, 2016-2017**

Contributing sci-fi/futures expertise and ideas to the future-related aspects of U of M's big celebration.

## **SKILLS**

C/C++, JavaScript, HTML5, Java, Python, Cinder, openFrameworks, Processing, OpenGL, Kinect, openCV, Max/MSP, Arduino, AVR embedded programming, MatLab

SolidWorks, Rhino, Fusion 360 CAD/CAM, Inventor, AutoCAD, QCAD, SketchUp, Vectric Cut2D/Cut3D/Carve, Mastercam, RhinoCam, Eagle, Magics, MeshLab, NetFabb, Linux, Adobe Creative Suite, Gimp, Inkscape

CNC milling including 5-axis and metal, laser cutting, waterjet cutting, vinyl cutting, vacuum forming, electronics production, 3D printing, 3D scanning

Molding and casting, woodworking, metalworking, glass frameworking, sewing

Polish, French

Lead rock climber, both traditional and sport

Scruggs style/two-finger/clawhammer banjo, fingerstyle guitar, classical piano