

PRASAD BORADKAR

Website: <http://www.prasadboradkar.com/>

Anthropologist, designer, educator, and researcher with several years of experience leading design and research teams in both academia and industry; recently led world-scale hardware and software technology development through innovative user experience (UX) research and rapid prototyping at Google (for Fitbit and Pixel)

RECENT WORK EXPERIENCE

Staff UX Researcher | Google LLC., ATAP, Mountain View, CA

Jan 2018 - Mar 2023

ATAP is Google's hardware invention studio of engineers, scientists, artists, and designers working together to turn new ideas into finished products that change the way people relate to technology. ATAP serves as the hardware innovation resource for Google's Devices and Services business unit.

- Led a small team of researchers, university partners, as well as consultants, created the team's research strategy, guided all user experience research, and collaborated across several large product areas (such as Pixel and Fitbit) to inform new product and mobile app design
- Designed and managed confidential research to directly drive the development of a new health platform, better-performing algorithms, and new features for future wearables
- Directed multiple research streams and methods including foundational research, concept testing, human factors evaluation, and directional studies with hundreds of participants to identify critical user needs, help generate product ideas, and validate new concepts
- Worked closely and collaboratively with mechanical engineers, electrical engineers, software engineers, industrial designers, and ML data scientists to test new device prototypes and app designs, and generate insights to drive future research, design, and development efforts

Design and Research Lead (Consultant) | Google LLC., ATAP, Mountain View, CA

Aug 2016 - Nov 2017

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- Led a small team of designers and researchers working on a new product development project that involved complex hardware, a dedicated app, and a service ecosystem
 - Directed design and user research efforts in close collaboration with a highly transdisciplinary product team involving product management, business operations, costing, marketing, branding, software engineering, electrical engineering, mechanical engineering, ML, and more to solve complex problems and generate creative solutions
 - Contracted and managed a user experience research and design project with a budget of over one million dollars with IDEO

Director, InnovationSpace | Arizona State University, Tempe, AZ

Apr 2005 - Dec 2017

InnovationSpace is a transdisciplinary research and education lab, where faculty and students work in cross-functional teams on corporate-sponsored socially and environmentally responsible projects.

- Led a team of five to six faculty members and thirty to forty students from business, engineering, industrial design, visual communication design, and sustainability in cross-functional, transdisciplinary courses on new product development and innovation
- Secured funding through grants and sponsored projects over two million dollars for fifteen years, and led projects with such corporations as Herman Miller, Intel, Procter & Gamble, Dow Corning, Disney, Adidas, Honeywell, and more
- Created an innovation framework for new product development (physical products and digital experiences) to build a comprehensive strategy inclusive of product, service, technology, branding, business, and sustainability
- Led workshops on design thinking and innovation strategy for Mayo Clinic as well as several Fortune 500 companies

The Biomimicry Center is a joint partnership between Arizona State University and Biomimicry 3.8 that facilitates biomimicry education and research endeavors locally and globally.

- Led the center as founding co-director and managed a staff of eight to ten employees
- Responsible for all research efforts including sponsored projects with corporations and federal grants
- Secured external funding in the form of grants and sponsored projects with a variety of corporations and organizations including Google, Adidas, Johnson & Johnson, LG Electronics, and more

The industrial design program at ASU prepares students for a professional career in product design, specializing in the development of manufactured objects used by people on a daily basis.

- Started as assistant professor in industrial design, got tenure, and was eventually promoted to full professor
- Served as the industrial design program chair for three years, leading a faculty body of five to six tenure-track/tenured professors and eight to ten adjunct lecturers
- Developed course content for and taught a variety of courses at the undergraduate and graduate levels on such topics as design fundamentals, innovation strategy, product development, design thinking, design culture, etc.
- Conducted research and wrote extensively about design theory, material culture, research methods, innovation, etc.

ITT Technical Institute was a vocational educational institution where I was hired specifically to develop and launch a new bachelor's program in industrial design

- Set up a brand new undergraduate program in industrial design, which included creating curricula for all courses, setting up studios and workshops, hiring faculty, managing budgets, and teaching courses
- Led a department of three to four full time and six to ten part time faculty members

EDUCATION

Doctor of Philosophy, Anthropology (PhD)

University College London, London, UK

May 2022**Master of Arts, Industrial Design (MA)**

The Ohio State University, Columbus, Ohio, USA

Dec 1993**Master of Design, Industrial Design (MDes)**

Industrial Design Centre, Bombay, India

Jan 1986**Bachelor of Engineering, Mechanical Engineering (BE)**

Maharaja Sayajirao University of Baroda, Vadodara, India

Dec 1983

SKILLS

Leadership

Setting up and leading departments as well as business units in academia and industry

Research

Research strategy, qualitative methods for user experience evaluation, project management

Design

Industrial design, user experience design, course design

Teaching

Designing and teaching in-person and online courses on research, design, and innovation

Writing

Books (monographs and edited volumes), co-editing journal issues, journal articles

SELECT PUBLICATIONS

Books

- *Perspectives on Indian Design*, publication date Aug 2025 (forthcoming)
This monograph will be the first book-length overview of the practice and education of product design in India. It will include a history of the profession along with case studies of products and services [Reaktion Press, UK]
- *Encountering Things*, published in Oct 2017
This anthology, co-edited along with Leslie Atzmon, is a collection of essays that explores the theoretical significance of things and its relevance to the disciplines of design [Bloomsbury Publishing, UK]
- *Designing Things: A Critical Introduction to the Culture of Objects*, published in May 2010
This book critiques objects from the diverse perspectives of design studies as well as cultural studies. Using theory as well as case studies, it introduces readers to the culture of objects in eight chapters, each of which present the concepts of theory, value, labor, aesthetics, obsolescence, need, semiotics and fetishism [Berg Publishers, UK]

Book Chapters

- "Design Inspired by Nature" in *Design and Science*, edited by Atzmon, L., Bloomsbury Publishing, London, UK [Co-authored with Penick, C.], Jan 2023
- "Design Encounters with Things" in *Encountering Things*, edited by Atzmon, L. and Boradkar, P., Bloomsbury Publishing, London, UK [Co-authored with Atzmon, L.]
- "Agency and Counteragency: A Story of Copper" in *Encountering Things*, edited by Atzmon, L. and Boradkar, P., Bloomsbury Publishing, London, UK
- "Big Things: The Vibrant Culture of Boomboxes" in *Encountering Things*, edited by Atzmon, L. and Boradkar, P., Bloomsbury Publishing, London, UK [Co-authored with Owerko, L.]
- "Design+Anthropology: An Emergent Discipline" in *The Routledge Companion to Design Studies*, edited by Sparke, P. and Fisher, F., Routledge, London, UK, Jan 2016
- "Visual Research in Design" in *The Sage Handbook of Visual Research Methods*, edited by Margolis, E. and Pauwels, L., Sage Publications, Thousand Oaks, CA, Jun 2011
- "Design as Problem-Solving" in *The Oxford Handbook of Interdisciplinarity*, edited by Frodeman, R., Thompson Klein, J. & Mitcham, C., Oxford University Press, Oxford, UK, Jun 2010
- "Transdisciplinary Innovation in the Classroom" in *Innovation Leadership: Creating the Landscape for Healthcare Transformation*, edited by Porter O'Grady, T. and Malloch, K., Jones and Bartlett Publishers, Sudbury, MA, USA, Dec 2009

Special Issues of Journals

- Co-edited an issue of *Innovation*, with Gutkind, L. titled "Design and Storytelling". This is a collection of articles examining the role of narrative and creative non-fiction in design, Jan 2017
- Co-edited an issue of *Creative Non-Fiction*, with Gutkind, L. & Fischer, A. titled "Learning from Nature". This is a collection of essays relating to the topic of biomimicry (innovation inspired by nature), Sep 2016
- Co-edited a special issue of *Design & Culture*, with Atzmon, L. titled "Design and Thing Theory". This is a collection of articles that examines the significance of theories of things in the context of design, July 2014

Select Articles

- "Design for All Life" on design blog Core77, <http://www.core77.com/posts/31264/Design-for-All-Life>, Mar 2015
- "Interdisciplinarity in Design Education: Benefits and Challenges", in *Innovation*, Vol. 33, Issue 4: 31-34, Winter 2014
- "Beautiful Ends, Extraordinary Means" in *Innovation*, Winter 2013, Issue 4: 22-24.
- "Design Tools for Base of the Pyramid Strategies" in *Interactions*, Volume 17(6): 41-46, Nov 2010 [with Kulkarni, U.]
- "Prototyping Nanotechnology: A Transdisciplinary Approach to Responsible Innovation" in *Journal of Nano Education*, June/December 2010, Volume 2, Numbers 1-2, 1-12. [with Selin, C.]
- "Integrated Innovation: A Model for A New New Product Development Curriculum" in *International Journal of Innovation Science*, Volume 1, Number 2, 61-71, Jun 2009 [with Duening, T.]

SELECT TEACHING: COURSES & WORKSHOPS

Undergraduate and Graduate Courses

- IND/MGT/GRA 464: Collaborative Design & Development I and IND/MGT/GRA 465: Collaborative Design & Development II
This two-part course series was offered through InnovationSpace and involved students from industrial design, graphic design, business, engineering, and sustainability who worked on sponsored projects. I was responsible for securing the funding from corporations and granting agencies for the course.
- DSC 598: Biologically-Inspired Design
This was an undergraduate/graduate course on the topic of biomimicry that I co-developed with faculty in ASU's School of Life Sciences. In this course, students from design and biology learned a new methodology of developing sustainable products and services using inspiration from nature.
- DSC 598: The Culture of Objects and DSC 598: Theorizing Things
This was a graduate course dealing with the culture of objects. Reading material for the class was drawn from my book that spans the areas of design theory, anthropology, philosophy, material culture, and cultural studies. The topics covered include theories, research methods, and approaches followed in these disciplines, along with case studies of specific objects.
- IND 494: Politics of Design
This course questioned the processes by which things are designed how social and material relations are shaped by the designed world. Students examined the processes of production, distribution and consumption by which designed objects become a part of everyday life.
- IND 460: Design Project I and IND 46: Design Project II
These courses were the two-semester sequence for industrial design students with an emphasis on user-centered product design and development.
- IND 316: 20th Century Design I and IND 317: 20th Century Design II
These two courses in design history covered Asian, American, and European design. The emphasis was on products, graphics, and architecture produced by individual designers, corporations, and design consultancies and the social and cultural significance of the built environment.
- IND 242: Materials and Design and IND 243: Process and Design
These two courses focused on fundamentals of materials and processes for design students. The content included all materials including metals, wood, plastics, composites, smart materials, as well as related manufacturing processes.
- DSC 121: Design Principles I and DSC 122: Design Principles II
These two courses focused on foundational studies for industrial design students.

Online Courses

- Fundamentals of Design and Innovation
I developed courses for a specialization called Techniques of Creativity, Design and Innovation for Coursera through ASU Online in partnership with National Autonomous University of Mexico (UNAM).
- Design Thinking + Making
This online course on design thinking has been offered to undergraduate as well as graduate students at Arizona State University for several years.
- Strategic Enterprise Innovation
This online course was developed for graduate students in the Ira A Fulton Schools of Engineering, which provided an overview of innovation frameworks and strategies

Corporate Workshops

I developed and led workshops on design and innovation strategy with several Fortune 500 companies in partnership with ASU's Thunderbird School of Global Management as well as for Mayo Clinic with the College of Nursing and Health Innovation.

SELECT GRANTS AND SPONSORED PROJECTS

Grants (Federal, Non-Profit and Local)

- Life in Motion: Design for Visual and Physical Disabilities, Women & Philanthropy Grant | Amount: \$100,000
- Ray Anderson Foundation Grant [Co-PI] | Amount: \$60,000
- IGERT Grant (NSF): Alliance for Person-centered Accessible Technologies (APAcT) [Co-PI] | Amount: \$3 million
- Design of Collaborative Spaces, Grant from the Walton Sustainability Solutions Initiative | Amount: \$38,000
- Center for Nanotechnology in Society (funded by NSF), Designing Products for Nanotechnology | Amount: \$180,000
- Herberger Institute for Design and the Arts, Seed Grant | Amount: \$7,500
- AT Steele Travel Grant, Funding for Research Project on Copper Handicraft in India | Amount: \$2,000
- Pathways to Entrepreneurship Grant, Innovating from Life: Exploring Biomimicry-based Solutions | Amount: \$31,722
- Pathways to Entrepreneurship Grant, Design of Resilience | Amount: \$29,610
- National Collegiate Inventors and Innovators Alliance, Innovating from Life: Exploring Biomimicry-Based Solutions to Healthcare Problems [Co-PI] | Amount: \$33,000
- Entrepreneurship at ASU," Grant from The Kauffman Foundation, [Co-PI] | Amount: \$5 million total
- Student Pathways Award, Designing for Resilience: Expanding Opportunities for Student Entrepreneurship in Healthcare Innovation | Amount: \$20,000
- National Collegiate Inventors and Innovators Alliance, New Futures for Human Health and Enhancement | Amount: \$30,000
- Transforming Nascent Products to Commercial Readiness, Pathways to Entrepreneurship Grant, ASU [Co-PI] | Amount: \$35,000
- Flexible Display Center, Responding to Emergency Medical Situations | Amount: \$25,000
- Macrotechnology Works, Arizona State University, Medical Device Solutions for Flexible Displays | Amount: \$17,500
- Center for Cognitive Ubiquitous Computing, Products for People who are Blind | Amount: \$25,000
- Product Research and Design (Google) | Amount: \$167,981, \$158,000
- Product Evaluation (Server LIFT) | Amount: \$46,000
- Engaging Radio, Grant from the Institute for Humanities Research [Co-PI] | Amount: \$10,000
- Pop to Post-Modern: Music and Design, Herberger Center for Design Excellence [Co-PI] | Amount: \$3000
- Image Music Object: Design, Media Studies, and Popular Culture, Herberger Center for Design Excellence [Co-PI] | Amount: \$3000
- Rewind, Remix, Replay: Design, Music and Everyday Experience, Exhibition at the Scottsdale Museum of Contemporary Art, National Endowment for the Arts, [Co-PI] | Amount: \$30,000

Sponsored Projects (InnovationSpace and The Biomimicry Center)

- Cisco: Design of IoT Products for Individuals with Disabilities | Amount: \$50,000
- Adidas: Design for Circular Economy and the Consumer Experience | Amount: \$50,000
- Johnson & Johnson: Biologically-Inspired Healthcare Solutions | Amount: \$40,000
- Honeywell: Design for Infrastructure Monitoring | Amount: \$40,000
- LG Electronics: Design for the Hispanic Market | Amount: \$40,000
- Disney Consumer Products: Designing Healthy Physical-Digital Products | Amount: \$105,000
- Philanthropic Grant from Mr. Casey Smitheran: Design for Wheelchair Mobility | Amount: \$30,000
- Herman Miller: Improving the Quality of Healthcare Environments | Amount: \$30,000
- Dial Henkel: Research and Design for Air Freshener Products [Co-PI] | Amount: \$44,000
- Dow Corning: Design of Sustainable Solutions using Silicone Materials | Amount: \$90,000
- Intel: Design for Aging in Place (Products for Older Adults) | Amount: \$33,000
- Procter & Gamble: Creating a Healthy Aging Experience for Older Adults [Co-PI] | Amount: \$80,000
- Arizona Business Accelerator: Improving Everyday Life by Design, Grant | Amount: \$50,000

SELECT PRESENTATIONS: PEER CONFERENCES & INVITED TALKS

Peer-Reviewed Conference Presentations

- Life-Centered Innovation, Design for Sustainability and Social Impact, Design Management Institute, Boston, MA, Sep 2015
- Wicked Problems, Interdisciplinary Solutions, Alliance for Arts in Research Universities, Ames, IA, Oct 2014
- Engaging India, Industrial Designers Society of America International Conference and Education Symposium, Austin, TX, Aug 2014
- Interdisciplinarity in Design Education, Industrial Designers Society of America International Conference and Education Symposium, Austin, TX, Aug 2014
- Design and Futures, Oxford Futures Forum, Saïd Business School, Oxford University, Oxford, UK, May 2014
- Endangered Material, Enduring Craft, Interactions between Humans and the Natural World in Maharashtra, India, Tempe, AZ, Apr 2014
- User-Centered Design as a Problem, Industrial Designers Society of America International Conference, Chicago, IL, Aug 2013
- Cultural Sustainability by Design, Industrial Designers Society of America International Conference, Chicago, IL, Aug 2013
- Context by Contrast, Congress on the Future of Engineering Software (COFES), Scottsdale, AZ, Apr 2013
- The Greed Imperative: The Problem with User Needs in Design, The Life of the Object: An Experimental Workshop and Conference on Production, Consumption, and Creative Reuse in American Culture, The Mid-America American Studies Association Conference, Madison, WI, Apr 2011
- Planned Obsolescence, Congress on the Future of Engineering Software, Phoenix, AZ, Apr 2011
- Design Inspired by Nature, Open Minds Conference, National Collegiate Inventors and Innovators Alliance, Washington, DC, Mar 2011
- Design Fetishism, Phoenix Design Week, Phoenix, AZ, Nov 2010
- Negotiating Opposites, Polar Opposites: The International Industrial Designers Society of America Conference, Phoenix, AZ, Sept 2008 [Keynote Address]
- Illusions at the Bottom of the Pyramid," Polar Opposites: The International Industrial Designers Society of America Conference, Phoenix, AZ, Sep 2008

Invited Talks

- Curiosity, Creativity and Innovation, TEDx, Colorado Springs, CO, Oct 2017
- Biomimicry and the Circular Economy, Chartered Institutes of Waste Management, Edinburgh, Scotland, Sep 2017
- Life-Centered Design, Design Miami, Miami, FL, Dec 2016
- Design Strategy, Panel Discussion and Presentation, Duke Kunshan University, Kunshan, China, May 2016
- Beyond Anthropocentrism: Life-Centered Design", International Symposium on the Study of Biomimicry, Leticia-Amazonas, Colombia, Apr 2016 [Keynote Address]
- Design Thinking, ArtPlace Creative Placemaking, Phoenix, AZ, Apr 2016
- Obsolescence, The e-Waste Tsunami, Parsons The New School of Design, New York, NY, Mar 2016
- Life-Centered Design, Big Island Big Ideas, The Big Island, Hawai'i, Mar 2016
- An Innovation Framework for Strategic Growth, 3 Million Stories, Tempe, AZ, Mar 2016
- Beyond Anthropocentric Design, Beyond Biophilic Cities: Solutions Rooted in Place, South by Southwest Eco, Austin, TX, Oct 2015
- Craft and Prototyping, Emerge: The Future of Making, Arizona State University, Tempe, AZ, Mar 2013
- User-Centered Design as a Problem, Abhikalpa, Industrial Design Centre, Mumbai, India, Jun 2012
- Innovation: The Long, Wide and Deep View, The Confederation of Indian Industry Design Conference, New Delhi, India, Dec 2011, [Keynote Address]
- Obsolescence", TEDx Phoenix, Phoenix, AZ, Oct 2010
- Design Intelligence and Intelligent Design", High Ground Conversations, organized by Katherine and Michael McCoy, Buena Vista, CO, Jul 2010