

SHREEHARSH KELKAR

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ACADEMIC POSITIONS

2016- Lecturer, Interdisciplinary Studies Field Major
University of California, Berkeley
Affiliated with the Algorithmic Fairness and Opacity (AFOG)
Working Group (UC-Berkeley and Google) and Center for Science,
Technology, Medicine, and Society (CSTMS).

EDUCATION

2010-2016 Ph.D., Massachusetts Institute of Technology
History, Anthropology, and Science, Technology, and Society
2016 Graduate Certificate, Kaufman Teaching Certificate Program (KTCP), MIT
2004-06 Arizona State University
Electrical Engineering (Concentration: Arts, Media and Engineering)
2002-03 M.S., Columbia University
Electrical Engineering
1998-2002 B.E., VJTI, University of Mumbai (India)
Electronics Engineering

RESEARCH AND TEACHING AREAS

The future of work and expertise
Ethics of algorithms and Artificial Intelligence
History and anthropology of computing
Sociology of work, labor, and expertise
Critical algorithm and data studies
Science, technology, and society
Interdisciplinary research methods

AWARDS AND FELLOWSHIPS

- 2019 UC-Berkeley Professional Development Fund (PDF) Travel Award. Amount: \$1000.
- 2018 UC-Berkeley Professional Development Fund (PDF) Award for the project “The Unreasonable Success of Intelligent Tutoring Systems.” Amount: \$2950.
- 2016 Honorable Mention, David Hakken Prize for Best Student Paper, Committee for the Anthropology of Science, Technology, and Computing (CASTAC)
- 2015-16 Research Assistant, Project: MOOCs and the Ethnography of Media Socialization
- 2014-15 Visiting Student Researcher, School of Information, University of California, Berkeley. Mentor: Paul Duguid
- 2014 Doctoral Dissertation Research Improvement Grant (DDRIG), National Science Foundation (NSF). Amount: \$13380
- 2013 Dissertation Fieldwork Grant, Wenner-Gren Foundation for Anthropological Research. Amount: \$19800
- 2013-15 MIT STS Fellowship
- 2010-12 Research Assistant, Project: Predictive Modeling of the Emergence and Development of Scientific Fields.
- 2012 Values in Design (VID) Fellow.

Media Mentions

- 2019 Matt Beane. [Learning to Work with Intelligent Machines](#). *Harvard Business Review*.
- 2016 Gillian Tett. [How robots are making humans indispensable](#). *Financial Times*.
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PUBLICATIONS

Peer-Reviewed Articles

- 2020 (with Benjamin Shestakofsky, equal authorship)
“Making Platforms Work: Relationship Labor and the Management of Publics,” *Theory and Society*. 49 (5-6). <https://doi.org/10.1007/s11186-020-09407-z>.
- 2019 “Post-truth and the Search for Objectivity: Political Polarization and the Remaking of Knowledge Production,” *Engaging Science, Technology, and Society*. 5, 86-106. <https://estsjournal.org/index.php/ests/article/view/268>

- 2018 “Engineering a Platform: The Construction of Interfaces, Users, Organizational Roles, and the Division of Labor,” *New Media and Society*. 20 (7), 2629-2646.
Honorable Mention, 2016, David Hakken Prize for Best Student Paper, Committee on the Anthropology of Science, Technology, and Computing (CASTAC).

Under Preparation

- 2019 “The Elite's Last Stand: Negotiating Toughness and Fairness in the IIT-JEE, 1960-2005,” *Engineering Studies* (Revise and resubmit).

Editor-Reviewed Articles

- 2020 “Introduction to the Special Issue on ‘Interface Architects: The Evolution of Human-Computer Interaction’.” *IEEE Annals of the History of Computing*, Volume 42, Issue 4 (Fall 2020). Co-editor of special issue with Elisabetta Mori.
- 2018 “On the “Neutrality” of Platforms: How the Platform Shapes Pedagogy in MOOCs,” *Anthropology Now*, 10(3): 70-83.
- 2014 “The MOOC as Laboratory: The Implications of A/B Testing in Higher Education,” *American Anthropologist*, 116(4): 829-38. Part of the “Vital Topics” forum Anthropology in and of MOOCs.

Book Reviews

- 2015 Review of “Delete: A Design History of Computer Vapourware” by Paul Atkinson. *Journal of Design History*. 28(2): 209-10.

Selected Public Writing

- 2020 “Are Surveillance Capitalists Behaviorists? No. Does It Matter? Maybe.” *The Startup*. <https://medium.com/swlh/are-surveillance-capitalists-behaviorists-does-it-matter-no-and-maybe-a7327265eead>
- 2018 ““We do software so that you can do education’: The Curious Case of MOOC Platforms.” *Culture Digitally*. <http://culturedigitally.org/2018/05/we-do-software-so-that-you-can-do-education-the-curious-case-of-mooc-platforms/> Also published on the public sociology blog *Work in Progress: Sociology on the Economy, Work and Inequality* hosted by the American Sociological Association (ASA).
- 2017 “How might the history of AI help us critique Kosinsky’s “gaydar” study?” *Scatterplot*. <https://scatter.wordpress.com/2017/09/25/guest-post-how->

[might-the-history-of-ai-help-us-critique-kosinskys-gaydar-study/](#).

Republished on the blog hosted by *the Berkeley Algorithmic Opacity and Fairness Working Group (AFOG)*.

“A Media Ecosystem for an Age of Fracture.” *SKAT Blog* hosted by the Science, Knowledge and Technology Section of the ASA.

<https://asaskat.com/2017/01/12/a-media-ecosystem-for-an-age-of-fracture/>

“Three Perspectives on Fake News.” *Platypus Blog* hosted by the Committee on the Anthropology of Science, Technology and Computing (CASTAC) of the American Anthropological Association (AAA).

<http://blog.castac.org/2017/05/on-fake-news/>

“How (Not) to Talk about AI.” *Platypus Blog*.

<http://blog.castac.org/2017/04/how-not-to-talk-about-ai/>

2015 “Trusting Experts: Can We Reconcile STS and Social Psychology?” *Platypus Blog*. <http://blog.castac.org/2015/09/trusting-experts/>

“How Influential was Alan Turing? The Tangled Invention of Computing and Its Historiography,” *Platypus Blog*. <http://blog.castac.org/2015/03/how-influential-was-turing/>

2014 “What’s the Matter with Artificial Intelligence?” *Platypus Blog*. <http://blog.castac.org/2014/02/whats-the-matter-with-artificial-intelligence/>

Peer-Reviewed Computer Science Publications

2010 Shreeharsh Kelkar, Ajita John and Doree Duncan Seligmann. “Some Observations on the ‘Live’ Collaborative Tagging of Audio Conversations in the Enterprise,” *ACM Conference on Human Factors in Computing Systems (CHI)*. Atlanta, GA. Acceptance rate: 22%.

2009 Shreeharsh Kelkar, Ajita John and Doree Duncan Seligmann. “Visualizing Search Results as Web Conversations,” *Workshop on Web Search Summarization and Presentation, International Conference on the World Wide Web (WWW)*. Madrid, Spain. Acceptance rate: 9 of 21.

2007 Adithya Renduchintala, Shreeharsh Kelkar, Ajita John and Doree Duncan Seligmann. “Designing for Persistent Audio Conversations in the Enterprise,” *ACM Conference on Designing for User Experience (DUX)*. Chicago, IL.

Shreeharsh Kelkar, Ajita John and Doree Duncan Seligmann. “An Activity-based Perspective of Collaborative Tagging” *International*

TEACHING EXPERIENCE

Instructor (All courses at UC-Berkeley, Interdisciplinary Studies; S=Spring, F=Fall)

Introduction to Social Theory and Cultural Analysis F19
This course introduces students to grand frameworks for understanding society: “social theories.” Students will study three social theories in sequence: liberalism, Marxism and social construction. The goal is to understand the power and limitations of each theory of society: what it is good for and what it leaves out. Students will use these social theories to think through the implications of digital platforms for the freedom of expression, the different forms of work, and modes of persuasion.

The Social Life of Computing F17, F18, S20
This course introduces students to the technical, social, business, and political entanglements of computing from its late 19th century origins to the 21st century software industry and social media platforms. The topics covered include the intersections of computing with: calculation, capitalism, intelligence, mind, gender, expertise, work, automation, identity, citizenship, and democracy, among others. Students will learn to see computing as a “social” phenomenon: as a technology that is being put to use, in very particular ways, by particular groups of people.

Interdisciplinary Research Methods F16, S17, F17, F18, F19, S20, F20
The course introduces undergraduate students to research design and a variety of social science research methods including surveys, interviewing, participant-observation, experimentation, and digital research. Students participate in exercises and group-work, write peer reviews of research, and a prospectus laying out their senior thesis.

Interdisciplinary Perspectives on Artificial Intelligence S19
The course teaches students to pick apart claims about artificial intelligence. It asks: how have different human societies conceived of “intelligence,” natural or artificial, and how has this varied with place and time? How have different technical experts been influenced by the time, place, constraints, and patronage they operated under? How does contemporary AI intersect with regimes of calculation, capitalism, standardization, gender, and speech?

Technology and Values S18
This course teaches students to pick apart the black-box of science and technology and look for values, not just in terms of bad actors, corruption, or “implications,” but in the processes that constitute modern technoscience itself. These processes include: the ways in which researchers construct problems, solutions, facts, and artifacts; the norms, standards, stories, and patronage relations that underlie science and technology; and

finally, how the future is imagined and realized. Readings will include academic and journalistic texts as well as science fiction. By the end of this class, students will be able to articulate sophisticated theories of technology and technological change, and, analyze in concrete detail the relationship between technology and values.

Introduction to Science, Society and Ethics

S17

This course surveys the entanglements of science and technology with states, publics, and the question of expertise and governance. Students gain a conceptual understanding of science-state-society relations and explore controversies ranging from race science, standardized testing, technological disasters, GMOs, financial instruments, to net neutrality and digital privacy.

Senior Thesis

F16, S17, F17, S18, F18, S19, S20, F20

Students write a sustained, original, and critical examination of a central interdisciplinary research question, under the guidance of the instructor.

INVITED TALKS

- 3/2020 “Reinventing Expertise in the Age of Platforms: The Case of Data Science.” Conference on *Algorithmic Conditions: Openness and Closure in Big Data Analytics*, Center for Data Ethics and Justice, University of Virginia, Charlottesville, VA. [Cancelled due to COVID-19].
- 2/2020 “Data Science in the World of MOOCs.” Sawyer Seminar on *The Data Environment and the New University*, Johns Hopkins University, Baltimore, MD.
- 1/2020 “Reinventing Expertise in the Age of Platforms: The Case of Data Science.” Indian Institute of Science Education and Research (IISER), Pune, India.
- 6/2019 “Reinventing Expertise in the Age of Platforms: The Case of Data Science.” Data and Society Institute, New York.
- 5/2019 “Reinventing Expertise in the Age of Platforms: The Case of Data Science.” *Data Then and Now Seminar*, University of Washington.
- 5/2019 “Reinventing Expertise in the Age of Platforms: The Case of Data Science.” *BIDS Data Science Lecture*. Berkeley Institute of Data Science (BIDS). Available at <https://www.youtube.com/watch?v=-Ba2Gq13dBI>
- 4/2019 “Teaching Dialogue on Active Learning” at the Berkeley Center for Teaching and Learning. Available at <https://www.youtube.com/watch?v=Zo0yyHEU6Ug>
- 2/2017 “Fake News in the New Media Landscape.” UC-Berkeley, part of the series on “The 2016 Elections: A Semester-long Teach-In.”

- 11/2016 Panelist at the *AAA Public Policy Forum on Big Data* at the annual meeting of American Anthropological Association (AAA), Minneapolis (with Mary Gray, Matthew Hill, Paul Kockelman, Ian Lowrie, and Nick Seaver).
- 3/2016 “Platformizing Higher Education: Computer Science and the Making of MOOC Infrastructures.” STS Circle, Harvard University.
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CONFERENCE PRESENTATIONS

Topic: MOOCs, Algorithms, Data Science

- 10/2020 “Reinventing Expertise in an Age of Platforms.” *Just Code: Power, Inequality, and the Global Political Economy of IT* Symposium at the Charles Babbage Institute, Minneapolis, MN.
- 9/2019 “Reinventing Expertise in an Age of Platforms.” Presented at the panel on Unpacking Expertise - I at the annual meeting of the Society for the Social Studies of Science (4S), New Orleans.
- 9/2019 “Making Platforms Work: Conceptualizing Platform Labor and the Management of Publics.” Presented at the panel on Algorithms at Work: The Practice of Prediction - I at the annual meeting of the Society for the Social Studies of Science (4S), New Orleans (with Benjamin Shestakofsky).
- 6/2019 “Technical Work and Relationship Work: Conceptualizing Platform Labor and the Management of Publics.” Presented at the panel on The Future of Algorithmic Inequalities and Organizational Dynamics at the annual meeting of the Society for the Advancement of Socio-economics (SASE), New York (with Benjamin Shestakofsky).
- 11/2018 “Learning to be neoliberal? Educational expertise in the world of MOOCs.” Presented at the panel on Engineering Markets: The Technological Arts of Neoliberalism at the annual meeting of the American Anthropological Association (AAA), San Jose.
- 08/2018 “The Educational Expert in a World of Artificial Intelligence.” Presented at the panel on Artificial Feelings: The Politics and Perceptions of AI at the annual meeting of the American Sociological Association (ASA), Philadelphia.
- 11/2017 “Engineering a Platform: The Construction of Interfaces, Users, Organizational Roles, and the Division of Labor.” Presented at the panel on Remodeling Democracy: Codes and Software as Sites of Political

Reimagining at the annual meeting of Special Interest Group on Computers, Information and Society (SIGCIS), Philadelphia.

- 11/2017 “The Unreasonable Success of Intelligent Tutoring Systems.” Presented at the panel on History of AI and Its Discontents at the annual meeting of the Society for the History of Technology (SHOT), Philadelphia.
- 8/2017 “Seeing Like a Platform: The Tensions of Data-Driven Knowledge Production around MOOCs.” Presented at the panel on Studying Data Critically at the annual meeting of Social Studies of Science (4S), Boston.
- 11/2016 “The Instructor in a World of Artificial Intelligence.” Presented at the panel on Learning to Labor in the Digital Economy at the annual meeting of American Anthropological Association (AAA), Minneapolis.
- 4/2016 “Reconfiguring Educational Expertise: MOOCs, Computer Science, and the Study of Learning.” Presented at the panel on The Politics of Numbers at the conference on Expertise from Margin to Center: Science, Politics, and Democracy, Columbia University, New York.
- 11/2015 “The Ideological Uses of Data: Observations from the Domain of Online Learning.” Presented at the panel on Anthropologies of Data at the annual meeting of American Anthropological Association (AAA), Denver.
- 11/2015 “When New and Old Experts Collide: Computer Science and the Study of Learning.” Presented at the panel on Digital STS Theory and Practice: Expertise, Labor, Making at the annual meeting of the Society for the Social Studies of Science (4S), Denver, CO.
- 12/2014 “Platformizing Higher Education: Computer Science and the Making of MOOC Infrastructure.” Presented at the panel on On Things Immaterial: Data, Users and Participation in Digital Technologies at the annual meeting of the American Anthropological Association (AAA), Washington, DC.
- 11/2013 “Platformizing” Higher Education: MOOCs and the Changing Labors of Educators.” Presented at the panel on (Invisible) Internet Infrastructure Labor at the annual meeting of the Association of Internet Researchers (AoIR), Denver, CO.
- 10/2013 “MOOCs as Infrastructures: Structuring the Sciences of Learning.” Presented at the panel on Structuring Infrastructures at the annual meeting of the Society for the Social Studies of Science (4S), San Diego, CA.

Topic: Social History of the IIT-JEE Engineering Entrance Examination

- 11/2013 “The Elite’s Last Stand: Negotiating Fairness and Toughness in the IIT-JEE.” Presented at a panel on Nurturing the Nation, Cultivating Innovation, at the annual meeting of the History of Science Society (HSS), Boston, MA.
- 10/2012 “Subjective Vs. Objective: The Problems of the IIT Joint Entrance Examination (JEE).” Presented at a panel on Re-envisioning/Redesigning Engineering Education + Contemporary issues and the normative dimension of Engineering Education at the annual meeting of the Society for the Social Studies of Science (4S), Copenhagen, Denmark.

Organizer, Discussant, and Other Activities

- 9/2019 Discussant for the panel on Algorithms at Work: The Practice of Prediction - II at the annual meeting of the Society for the Social Studies of Science (4S), New Orleans.
- 11/2018 Discussant at the panel on Inter-topia: Productive tensions within the collisions of techno-utopianism and techno-dystopianism at the annual meeting of the American Anthropological Association (AAA), San Jose.
- 10/2013 Discussant and co-organizer (with Göde Both) at the panel on Machine Learning Worlds: Politics and Practices, at the annual meeting of the Society for the Social Studies of Science (4S), San Diego, CA.

ACADEMIC AND OTHER VOLUNTARY SERVICE

- 2018 Selection Committee, David Hakken Student Paper Prize, Committee for the Anthropology of Science, Technology, and Computing.
- 2016- Reviewer for *National Science Foundation; Science, Technology and Human Values; New Media and Society; Information, Communication, and Society; IEEE Annals of the History of Computing; Anthropology of Work Review; California Management Review; Journal of Anthropological Research; Critical Studies in Education; Digital Culture and Education; Conference on Human Factors in Computing Systems (CHI 2011, CHI 2020); Conference on Computer-Supported Cooperative Work (CSCW 2010, CSCW 2011)*.
- 2013 -17 Contributing Editor for the Platypus Blog, The Committee for the Anthropology of Science, Technology, and Computing (CASTAC) (<http://blog.castac.org>)
- 2014 HASTS Student Representative, Department of Anthropology
- 2013 Member, Committee on Intellectual Property, MIT
- 2012-13 Member, Digital Learning Subcommittee, MIT
- 2012 Co-organizer, North East STS Graduate Student Conference
- 2011-12 HASTS Representative, Graduate Student Council (GSC), MIT

PROFESSIONAL EXPERIENCE

Xerox Research Center (XRCW), Work Practice Group, Webster, NY

Research Intern, Summer 2012.

Mentor: Patricia Swenton-Wall,

Documented the workflow and practices of Quality Abstractors (QAs) at two hospital sites; observations will be used by the design team as inputs for their next version of the software. QAs work in the hospital back-office and are tasked with monitoring the progress of patients through the hospital. They decide whether patients have received a quality of care commensurate with federal regulations and sometimes communicate with clinicians to make sure that certain measures are taken for the patients still in the hospital. We realized that the work of the QAs involved a lot of uncertainty, which they managed by making lists of patients and by keeping track of their decision-making process for each patient.

Avaya Labs Research, Collaborative Applications Group, Basking Ridge, New Jersey

Research Scientist, October 2007 – August 2010

Manager: Doree Duncan Seligmann

Research Intern, June 2006 – September 2007

Mentor: Ajita John

Worked on applying the tools of Web 2.0 like wikis, blogs, tagging, social bookmarking, etc. to the artifacts of voice communication. Work included system design and prototyping, information visualization, computational modeling, and studies of user experience. (See also *Peer-Reviewed Computer Science Publications* above)

Developed the *Live Conference Dashboard* (LCD), a tool that allows participants in an audio conference to see speaker turns (i.e. who is speaking) and collaboratively tag the ongoing conference, portions of the conference or instants of it (i.e. apply free-form keywords that are visible to other participants).

Also built *Echoes*, a web-based tool that takes the data from the LCD and visualizes it as an enterprise social network, allowing users to see the relationships between people, conversations and topics (tags).

Both LCD and Echoes came to be included as part of the Avaya Emerging Products and Technologies Portfolio.

Mitsubishi Electric Research Labs (MERL), Cambridge, MA

Research Intern, June-August 2003

Mentor: Ajay Divakaran

Developed a compressed domain feature extraction tool to extract MPEG-7 descriptors from MPEG2 bitstream using the Intel MPEG2 decoder and Intel Performance Primitives.

Extracted features from AC3 audio stream and used them for speech/music discrimination.

PATENTS

System and Method for Displaying a Tag History of a Media Event, United States Patent Office Serial Number: 9021118, Granted: 04/28/2015.

System and Method for Aggregating and Presenting Tags, United States Patent Office Serial Number: 8849879, Granted: 09/30/2014.

Method and System for Live Collaborative Tagging of Audio Conferences United States Patent Office Serial Number: US8391455, Granted: 03/05/2013.

Method for Determining Communicative Value, United States Patent Office Serial Number: US8234305, Granted: 07/31/2012.

PROFESSIONAL AFFILIATIONS

Society for the Social Studies of Science (4S)

American Anthropological Association (AAA)

Society for the History of Technology (SHOT)

American Sociological Association (ASA)

Association for Computing Machinery (ACM).

LANGUAGES

English (fluent); Marathi (fluent); Hindi (fluent).