Comparative Media Studies/Writing Program

Overview

AY2017 was an eventful year at Comparative Media Studies/Writing (CMS/W). We describe highlights below, but in particular we would like to spotlight the following faculty promotions, fellowships, and awards.

Seth Mnookin was promoted to professor of science writing, and D. Fox Harrell was promoted to professor of digital media.

Faculty and research groups were recipients of many fellowships, grants, and prizes in AY2017. Professor Junot Díaz was inducted into the American Academy for Arts and Letters, was the 2017 Kapnick Distinguished Writer-in-Residence at the University of Virginia, received the Kurt Vonnegut Jr. Award, and delivered the Indianapolis Public Library's McFaddden Memorial Lecture. Professor of the practice Alan Lightman was the Harvard Humanist Hub's inaugural winner of the Humanism in Literature Award and received an honorary doctorate from Colgate University. Professor Seth Mnookin received a Harvard Medical School Media Fellowship and was elected to the board of the National Association of Science Writers. Professor Lisa Parks received a research fellowship at the International Research Center for Cultural Techniques and Media Philosophy. Professor and Section Head Edward Schiappa won the 2016 National Communication Association's Charles H. Woolbert Research Award for his essay "The Parasocial Contact Hypothesis" (co-authored with Peter B. Gregg and Dean E. Hewes). Professor Jing Wang received several grants, including from the Dunhe Foundation, China, for her NGO2.0 Philanthropy Map Project; from the Shenzhen Futian government, for web 2.0 training workshops in Shenzhen; and from the Ford Foundation for continuing work on the NGO2.0 project. Finally, research groups led by faculty and staff researchers brought in significant funding, including a \$450,000 unrestricted gift from Oculus for the Education Arcade and Game Lab, and a \$125,000 grant from the Ford Foundation for the Open Documentary Lab to write a white paper on co-creation history, methodologies, and best practices.

As outlined in the rest of this report, CMS/W's past academic year has featured other excellent developments. Its undergraduate courses continue to be in high demand, in particular relative to other courses that meet the Humanities, Arts, and Social Sciences (HASS) requirement. The CMS graduate program has maintained its high selectivity, admitting just 8% of its applicants, and recent graduates have gone on to high-profile jobs and PhD programs within CMS-related fields. The Graduate Program in Science Writing likewise has been highly selective, admitting top young science writers to its one-year program who, this past year, went on to publish pieces in *Scientific American, The Atlantic, New Scientist, Popular Mechanics,* and elsewhere. In its role supporting MIT writers through the Writing and Communication Center, CMS/W has seen remarkable utilization: 88% of the center's schedule openings are used, compared to other schools' average of around 50%.

Lastly, CMS/W has had great success in advancing its mission through conferences and hackathons; the development, distribution, and adoption of humanities-informed technology; frequent employment of Undergraduate Research Opportunities Program (UROP) participants; multi-institution international collaborations; and securing funds in external grants, gifts, and sponsored research funding.

Mission

Comparative Media Studies/Writing offers an academic program that applies critical analysis, collaborative research, and design across a variety of media arts, forms, and practices. Its students understand the dynamics of media change and can apply their insights to contemporary problems; they are also practitioners and artists who can work in multiple forms of contemporary media. CMS/W students and researchers are motivated by the desire to help shape the future by engaging with media industries and the arts in a time of rapid transformation associated with media change.

CMS/W is devoted to understanding the ways that media technologies can enrich the lives of individuals and communities locally, across the United States, and globally. CMS/W faculty, researchers, and students share a deep commitment to the development of pioneering new media tools and arts through strategies that serve the needs of diverse communities in the 21st century.

The CMS/W approach to humanities and arts education:

- Offers graduate and undergraduate degree programs centered on teamwork and research laboratories
- Engages with media practices across historical periods, cultural settings, and methods in order to assess change, design new tools, and anticipate media developments
- Supports a distinguished studio and workshop curriculum featuring the techniques and traditions of contemporary fiction, poetry, creative nonfiction, journalism, digital media, professional communication, video, and games
- Works with programs throughout the Institute to draw on and enrich MIT's unique mix of intellectual and entrepreneurial talent
- Cultivates a community of students, faculty, and staff devoted to the highest standards of scholarship and ethical practice
- Extends its educational work into industry, the arts, and the public sphere by offering socially aware, critically informed expertise and events.

Academic Programs

Undergraduate Comparative Media Studies Major

Now in its ninth year, the CMS undergraduate major enrolled 26 students, including eight students in the 21E/S (Humanities and Engineering/Science) joint major and seven double majors. Fourteen majors graduated in AY2017, which brings to 118 the

total number of students who have graduated from the CMS undergraduate program from its inception as an experimental major. This year saw the completion of the first CMS undergraduate thesis, supervised by Professor T. L. Taylor. In 2017, CMS had six minors and 120 concentrators. During AY2017, CMS sponsored 63 UROP positions for pay or credit, and another 13 over the summer. CMS graduates have gone on to careers in global digital commerce, video game production, brand management and marketing, research, nonprofit management, and social networking software design at companies such as Amazon, Electronic Arts, Facebook, Google, Microsoft, MTV, Nike, Oracle, and *Congressional Quarterly*; others have pursued studies in theater arts, fine arts, and law. Many others have gone on to leading graduate programs in the United States and abroad.

Comparative Media Studes Graduate Program

In AY2017, the CMS graduate program received 95 applications and admitted eight students, including three under-represented minorities, who all received a diversity fellowship from the Office of the Dean for Graduate Education. The program also graduated seven students with master's degrees in June, and expects to graduate another two in September. One student is continuing education in a PhD program at the University of California, Santa Cruz.

Undergraduate Writing Major

In AY2017, three Writing majors received degrees. A total of 12 students majored in the subject, including two students in the 21E (Humanities and Engineering) joint major and five double majors. In addition, during AY2017 Writing had nine minors and 76 concentrators. Writing majors have gone onto careers in journalism, fiction writing, education management, consulting, business analysis, technical writing, and public information. This year one of the major's graduating seniors applied to and will be joining the Graduate Program in Science Writing.

Graduate Program in Science Writing

In AY2017, the Graduate Program in Science Writing received 38 applicants and admitted eight students, including one Fulbright Scholar from the Philippines. The program also graduated six students, who now hold jobs at such places as *Popular Science*, the European Molecular Biology Lab, and *STAT*. One graduate is continuing education in a PhD program at the University of Nebraska, Omaha. The program continued its collaboration with the Knight Science Journalism Fellowship program, providing four students as interns to write for the magazine *Undark*. It also began a collaboration with the MIT Sloan Sustainability Initiative, providing research assistants for their communications and outreach efforts. Recent alumni of the program have been awarded fellowships from the North American Congress for Conservation Biology, the International Center for Journalists, and awards from the American Astronomical Society, and the Council for Advancement and Support of Education.

Comparative Media Studies/Writing Research Groups

The MIT Center for Civic Media—with CMS/W research assistant Mariel Garcia-Montes and affiliated faculty members Edward Schiappa, Jing Wang, Ian Condry, William

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Uricchio, and Sasha Costanza-Chock, and based as a group within the MIT Media Lab had a productive year. It supported CMS.362/862 Civic Media Collaborative Design Studio, a HASS-S subject taught by Costanza-Chock. Its projects focused this semester on youth media and gentrification by partnering with local youth arts and media organizations and a Cambridge-based innovation school for middle and high school students.

Center researchers wrote extensively on media issues surfaced by the 2016 elections, including such topics as so-called "fake news," online anonymity, political polarization, and bias in technology design. The center also received international attention for director Ethan Zuckerman's work on establishing a Media Lab Disobedience Award; in March, a donor provided \$250,000 to fund a prize for "responsible, ethical disobedience." After receiving more than 7,800 nominations, Zuckerman, Costanza-Chock, and 10 other judges honored scientists Dr. Mona Hanna-Attisha and Professor Marc Edwards for facing "harassment and ridicule for their work and risk[ing] academic sanction for defying conventions of peer review, as they sought to bring attention to Flint's water crisis before more people were affected."

The Creative Communities Initiative (CCI) had an active year working across several domains. CCI remains committed to using fieldwork and ethnographic insights to explore the frontiers of social and cultural change through various media communities. On the gaming front, Professor T. L. Taylor, with several graduate students, continues to work with the AnyKey initiative, a partnership between Intel and the Electronic Sports League to foster and support diversity in competitive digital gaming, also known as e-sports. In March 2017, CCI organized a Dissolve Inequality Visual Art Summit called Art / Protest / Value, featuring New York City artists and writers to explore politics, feminism, and art's potential to bring about progressive change. CCI also participated in weekly Bridge Wednesday protest events in Lobby 10 at MIT featuring the Mobile Protest Disco and live music. Plans are under way to develop a Dissolve Music Summit in spring 2018 as well.

The Education Arcade explores the potential of games and simulations as media that support learning both in and out of the classroom. In conjunction with the Office of Digital Learning, the Education Arcade has continued assisting the Tata Institute for Social Sciences in Mumbai in the Collected Learning Initiative project, which is developing innovative, inquiry-based high school curricula for government schools in India. It has undertaken similar efforts to assist the XQ schools in re-imagining high school curriculum in the United States.

Working with colleagues in the Scheller Teacher Education Program, the Education Arcade continued the development of several tools that enable students to learn programming and systems thinking through the creation of their own applications. These tools include StarLogo Nova, a web-served tool for building 3D simulations; TaleBlazer, which facilitates the creation of location-based mobile games; and Gameblox, an all-purpose game development tool. These projects have all involved contributions from UROPs, Computer Science graduate students, and research assistants in the CMS/W master's program. Work continues with the Smithsonian Institution on the creation and testing of a new game promoting greater understanding of both American history and engineering, focusing on upcoming 150th and 50th anniversaries, respectively, of the transcontinental railroad (1869) and the first moon walk (1969). The Education Arcade is also partnering with University of California, Irvine, in founding a new annual conference dedicated to connected, exploratory, and playful learning, filling a gap left in the field by the abandonment of several previously well-attended conferences.

As part of the MIT Game Lab's mission to bring together scholars, creators, and technologists, the lab's efforts this past year have been devoted to exploring the use of play in varying contexts, including education and technology. The seven courses offered by the Game Lab—connected with its research and development opportunities—have maintained MIT's standing within the Princeton Review's top schools for undergraduate and graduate study of game development for an eighth year running.

In fall 2016, the Game Lab co-hosted the Boston Festival of Indie Games for the fourth year. Over 3,000 people attended the event across multiple locations at MIT to see games developed by 300 invited developers and studios, giving students direct access to practitioners in game development. The event was covered in national media, placing MIT and the MIT Game Lab as a center for independent game development.

The lab is in its second year of a three-year project with members of BBN Technologies and Northeastern University to use games to help understand the psychology behind insider threat in information security contexts, funded by a \$100,000 subcontract on a BBN-managed grant from the Intelligence Advanced Research Projects Activity.

The lab received a second year of funding—\$150,000 from the Samuel Tak Lee MIT Real Estate Entrepreneurship Lab—to develop a game about socially responsible real estate development for Chinese students. The game was used in their summer 2016 and summer 2017 workshops held at Chongqing University, Qingdao University of Science and Technology, Qingdao Experimental High School, Tongji Zhejiang College in Shanghai, Xiamen University, Inner Mongolia University of Technology in Hohhot, and Hong Kong Design Institute.

Along with the Education Arcade, the Game Lab has begun an 18-month project investigating the use of virtual reality (VR) games to help students understand issues of scale in biological systems, particularly at the cellular and DNA level. Prototype development and initial research is supported by a \$450,000 unrestricted gift from Oculus.

This summer, the lab also partnered with MIT alumnus Riz Virk '92, and Tuff Yen, president of angel investor Seraph Group, to create Play Labs, a nine-week summer accelerator for MIT-affiliated startups developing products and services using playful technology. The first batch consisted of startups that span a wide breadth of categories, including: VR pets and games (two startups); VR business applications (two startups); augmented reality/mixed reality applications and tools (two startups); VR/VRWeb/360 development technology (three startups); e-sports (two startups); machine vision and

deep learning (two startups); and online games (two startups). Most of the startups have an MIT alum as a founder and one consisted entirely of MIT undergraduates.

During AY2017, HyperStudio—MIT's Laboratory for Digital Humanities—has continued to advance its efforts in developing innovative digital tools and web applications for research and education in the humanities and social sciences, increasing its outreach efforts, as well as creating new curricula initiatives for MIT students.

The worldwide user base of HyperStudio's National Endowment for the Humanities (NEH)- funded, online educational multimedia annotation project Annotation Studio, has grown significantly to almost 10,000 educators and students. Annotation Studio has been integrated into more than 850 humanities curricula at universities, community colleges, and high schools. In addition, 26 educational institutions have set up their own site-specific installations of Annotation Studio, including Barnard, Harvard, Hofstra, Humboldt University (Germany), Stony Brook, Vassar, Wellesley, and others. The project (Principal Investigator: Jim Paradis, Co-PI: Kurt Fendt), funded through two multiyear NEH Digital Humanities grants (awarded in 2011 and 2013) is open source, which has allowed other institutions to integrate Annotation Studio into their own projects. The HyperStudio team has continued to expand the functionality of Annotation Studio by developing a new tool, Idea Space, that connects the close reading and annotation process to academic writing. Idea Space allows students to select, filter, and organize their annotations and use them as the basis for essays, class discussions, and presentations. Both projects have been presented at invited talks at international conferences in Germany, Switzerland, and Spain as well as numerous workshops and conferences in the United States.

Work on Professor Kenneth Manning's project, Blacks in American Medicine 1860–1980, has resulted in an online prototype that features more than 23,500 biographies of black doctors along with tools for data filtering and visual representation, including a new version of HyperStudio's advanced, open source timeline tool Chronos. The goal of this collaboration is to bring Professor Manning's extensive research on Blacks in American Medicine online. Based on biographical data of black doctors from 1860 to 1980 along with tens of thousands of personal and institutional documents as well as audio interviews, the project aims to tell the unique history of black medical professionals in America. Blacks in American Medicine will be part of HyperStudio's new Active Archives Initiative and seeks to engage diverse audiences in the understanding of a marginalized narrative within America's history by exploring how these professionals interacted and engaged with both the black community and the American public at large.

HyperStudio's new Active Archives Initiative aims at rethinking how users will interact with digital archives. Based on many years of experience in building online archives and tools for the humanities, this initiative seeks to empower users to engage in story making, by discovering, interpreting, and organizing archived materials to construct new representations of the past. Simple, enjoyable to use, and designed with a wide range of prospective users in mind (from professional scholars to high school students), Active Archives combine rich sets of standards-based resources along with novel user interface designs and a set of rich scholarly and educational tools. The first projects as part this initiative are new versions of the Blacks in American Medicine and the US-Iran Relations projects.

A new collaboration with WBUR's *The ARTery* seeks to expand HyperStudio's mobile art discovery app Artbot, and integrate it with new art-related offerings for Boston's art community. Artbot extracts information from museum and gallery websites and uses sophisticated machine-learning techniques to suggest related art events based on users' interests.

HyperStudio will be offering a second, advanced digital humanities subject starting in AY2018. Based on the successful, currently offered, project-based digital humanities subject, the new course offering will focus on machine learning and critical data visualization techniques for humanities-related data. The subject will be taught by HyperStudio's executive director Kurt Fendt with support from one of HyperStudio's research assistants.

During the next academic year, HyperStudio will be hosting a Course 6 undergraduate student as part of the newly established School of Humanities, Arts, and Social Sciences-Electrical Engineering and Computer Science SuperUROP program. The selected student, will be working on the integration of machine-learning techniques into HyperStudio's existing and new archives, tools, and projects.

HyperStudio's weekly email newsletter for digital humanities, h + d insights, has further solidified its role as one of the key information sources in the field and about HyperStudio's work. Produced by one of HyperStudio's research assistants, the newsletter has more than 950 active subscribers. HyperStudio's Twitter account currently has more than 2,300 followers.

The Imagination, Computation, and Expression Laboratory (ICE Lab), established at MIT in 2010 by D. Fox Harrell, professor of digital media and artificial intelligence (AI), researches and develops artificial intelligence and cognitive science-based computing systems for creative expression, cultural analysis, and social change.

Harrell is currently pursuing several endeavors advancing his research on virtual identity. The National Science Foundation funds his work that uses avatars to support local middle and high school students from groups typically underrepresented in science, technology, engineering, and mathematics (STEM) fields in seeing themselves as learners and doers of computer science. An MIT CSAIL-Qatar Computing Research Institute (QCRI) collaboration funds his research on culturally-specific everyday uses of virtual identities in social media and video games (with the Persian Gulf region as a case study). And an MIT Center for Art, Science, and Technology (CAST) grant helps fund *The Enemy* project using virtual reality technologies to help engender empathy in the face of global conflict (e.g., in Gaza, Congo, and El Salvador). Support for these projects totals \$1.35 million.

Outcomes of ICE Lab projects have taken the form of interactive narratives, video games, and social media systems that can adapt to the cultural needs of diverse users and help educate diverse learners. Examples include Grayscale, an interactive narrative modeling ambivalent sexism; Mimesis, an online game that models social and psychological impacts of a subtle form of racism; and MazeStar, an educational computer game creation platform to engage students in learning computer science concepts while seeing themselves as powerful STEM learners and doers. The ICE Lab has also developed an AI tool called AIRvatar to analyze and reveal patterns in how people develop and use virtual identities. For example, AIRvatar has been used to empirically discover and demonstrate statistical patterns of racial and gender discrimination in video games, including a popular game that has sold over 9.5 million units globally.

To disseminate such results, the ICE Lab has produced a number of publications that have been presented at multiple internationally recognized conferences and venues, including at the Association for Computing Machinery (ACM), the Association for the Advancement of Artificial Intelligence, Digital Humanities, the American Educational Research Association, and the Institute of Electrical and Electronics Engineers. Harrell's work and ideas have been featured in publications including the *New York Times*, BBC, *New Yorker, Guardian*, Nieman Reports, *Boston Business Journal*, and *Communications of the ACM*.

The MIT Mobile Experience Lab (MEL), directed by Federico Casalegno, associate professor of the practice, seeks to reinvent and creatively design connections among people, information, and places. Using cutting-edge information and mobile technology, the lab seeks to improve people's lives through the careful design of new social spaces and communities. The Mobile Experience Lab has reverted to its original name, the MIT Design Lab, a vision of co-founders Bill Mitchell and Federico Casalegno. This name more accurately reflects the research and methods of the lab.

In January 2017, the lab began a three-year project with Puma innovating sportswear. The project is working across disciplines to foster innovation across sectors, from reinventing the digital experience using artificial intelligence and social media, to exploring smart material to improve performances for shoes, to creating unique connected shoes that ultimately improve user performance and connectivity.

In March 2017, the lab's MIT Tangible Map was installed in the new Atlas Service Center in Building E17. The map provides personalized information for visitors and community members to better navigate the MIT campus and resources. It is open source to allow for future additions and expansions for the MIT community.

In April 2017, the Design Lab held the third Make Me ++ Hackathon in memory of Bill Mitchell. BNP Paribas Cardif sponsored the event with the theme of Connected Care. More than 60 hackers of various backgrounds assembled for a weekend to develop new and creative embodiments of caring and received \$8,000 in prizes.

In partnership with Eni, within the MIT Energy Initiative, the Design Lab has continued its research in the field of Internet of Things applied to wearable technology for safety in the workplace. Creating smart clothing that monitors and advises on the physical condition of workers has required extensive testing and research. The lab was able to develop smart vests, jackets, shoes, and gloves equipped with multiple kinds of sensors and haptic feedback to prevent accidents in the workplace. The final phase of the project culminated in a presentation of concepts and prototypes to Eni in Milan in June. Related research was also presented at the PETRA conference in Rhodes and received a prize for best system design.

The lab continues to collaborate with Professor Casalegno's 4.569 Designing Interactions class. The class worked with the New England Aquarium to imagine new interactive and didactic displays and installations.

Professor Casalegno also taught the MIT Professional Education course "Innovation: Beyond the Buzzword" which introduced participants to concepts in design thinking and innovation. The course was customized for the United Arab Emirates and presented to ministers in Dubai in October 2016.

The MIT Open Documentary Lab (ODL) brings storytellers, technologists, and scholars together to advance the new arts of documentary. Founded by Professor William Uricchio and directed by Sarah Wolozin, the lab is a center of documentary scholarship and experimentation at MIT. Through courses, workshops, a fellowship program, public lectures, experimental projects, and research, the lab educates and actively engages the MIT community and the larger public in a critical discourse about new documentary practices and encourages people to push the boundaries of nonfiction storytelling. The lab currently has two graduate students, four faculty affiliates (Vivek Bald, Sasha Costanza-Chock, Christine Walley, and Hanna Rose Shell), and collaborates with leading institutions including Sundance Institute, Tribeca Film Institute, and the National Film Board of Canada. It has attracted the interest of major foundations including the MacArthur Foundation and the Ford Foundation.

In September, the lab began developing its Co-Creation Studio after being awarded \$85,000 from the John D. and Catherine T. MacArthur foundation for a planning grant. The studio researches and incubates co-creation methodologies. As part of this work, ODL began a project exploring the future of work and AI together with MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL).

Supported by a three-year \$750,000 grant from the John D. and Catherine T. MacArthur Foundation, the lab continued its fellows program, lecture series, gatherings, and resource development.

In the spring, Professor William Uricchio and Dr. Sandra Rodriguez offered MIT's first course on virtual reality, CMS.S60 Hacking VR. Through a grant from MIT's CAST, the course was accompanied by a VR lecture series open to the MIT community and the public. Oculus Story Studio supplied the equipment.

In May, the lab hosted a two-day conference, Update or Die: Future-Proofing Emergent Documentary Forms. The conference explored preservation and access strategies

and concepts for digital documentary, with experts from a wide range of disciplines including digital art, game design, technology, and archiving.

In June, the lab received a \$125,000 grant from the Ford Foundation to write a white paper on co-creation history, methodologies, and best practices. This work began in June 2017 and will be completed by May 2018.

ODL continued to develop Docubase, a curated, interactive database of the people, projects, and tools transforming documentary in the digital age. It also updated its Moments of Innovation site, Uricchio's visual white paper about the history of documentary and technology. In September, the lab launched a Medium publication together with Tribeca Film Institute, Immerse: Creative Discussion of Emerging Nonfiction Storytelling, with contributions by MIT faculty, researchers and students.

The Trope Tank, directed by Professor Nick Montfort, is a laboratory for research, teaching, and creative production. Its mission is to develop new poetic practices and new understandings of digital media by focusing on the material, formal, and historical aspects of computation and language.

The lab's work on literary translation projects included Renderings, a project to translate computational literary work from around the globe into English, and the newer Heftings project, which facilitates collaboration on seemingly impossible (or at least very difficult) literary projects. Work on these and other projects was done by the Trope Tank's international team, including a francophone postdoctoral researcher and a writer in residence from Argentina.

The Purple Blurb event series included a multilingual reading, "Poetry Across Borders," that took place on MIT's Day of Engagement, Day of Action. Also in the series was "Salon 256," a presentation and discussion of very small (256 byte) creative programs. This event came at the end of a semester of productive work on small-scale programs that all the core members of the Trope Tank participated in.

The Trope Tank continues to host the monthly meetings of the local interactive fiction club, the People's Republic of Interactive Fiction, as well as class visits and discussions with visiting researchers and colleagues from MIT.

Maintenance, repair, upgrading, and the addition of new hardware and software continued in the lab. An area in the space was developed and equipped with Macintosh computers from different eras, along with software, manuals, and books for these systems, and researchers spent a day exploring the resources.

The lab's equipment and researchers supported a display of Commodore 64 and Commodore VIC-20 work at the Boston Area demoparty, @party; Commodore 64 work and projections at the New York City demoparty, Synchrony; Commodore 64 projections at the experimental dance music event Beat Research in Cambridge; and various other exhibits and events.

Academic Support Centers

Writing, Rhetoric, and Professional Communication

Writing, Rhetoric, and Professional Communication (WRAP), a teaching and research group of nearly 40 lecturers within CMS/W, collaborates with MIT faculty in every department to teach written, oral, and visual communication to over 4,000 students a year in more than 100 communication-intensive subjects. WRAP also teaches the foundational writing subjects in CMS/W. WRAP is devoted to teaching students how to analyze and produce effective communication, and is led by its director, Suzanne Lane, and associate director, Andreas Karatsolis.

WRAP guides MIT students from the essay exam that they take online before entering as freshmen through their four required communication-intensive subjects and into their graduate education. WRAP administers the graduate writing exam, teaches the graduate subjects 21W.800J Business Writing for Supply Chain Management and 21W.801J Thesis Writing for Supply Chain Management, and provides instruction in professional communication in 16.5982 Doctoral Research and Communication Seminar. This year, for the first time WRAP was able to provide detailed comments to the hundreds of graduate students who took the writing exam, since the program has developed a process akin to traits analysis that was incorporated into the holistic scoring and generated targeted descriptive feedback. For AY2018, WRAP is collaborating with the program in Leadership in Global Operations to provide communication instruction for graduate students—from their internship to their thesis—which it will do through an integrated workshop model augmented by a series of online communication instruction modules. In the past year, WRAP has provided workshops on professional communication to students in the MIT Energy Initiative as well as a thesis-writing boot camp for graduate students in Mechanical Engineering. During MIT's Independent Activities Period (IAP), WRAP offered the following workshops: Communicating Science to the Public; Writing Successful Proposals; Rhetoric for Civic (and Civil) Engagement; and Beyond Citation: Understanding How to Reason with Sources.

WRAP's affiliated research laboratory, ArchiMedia, investigates how digital media is shaping professional communication practices and how digital tools can be used and designed to teach professional communication. The lab's past projects include a collaboration with CSAIL to design an online application to teach students how to paraphrase (as part of a larger research study into how MIT undergraduate and graduate students use sources in their academic writing), the development of online communication instruction modules on MITx for materials science, engineering, and chemical engineering, and an analysis of the emerging genre of graphical abstracts. This past year, WRAP has made progress on three separate grant-funded projects.

With funding from the National Science Foundation, WRAP is participating in a multiinstitutional project with Dartmouth College, the University of Pennsylvania, North Carolina State University, and the University of South Florida to study the effects of teaching undergraduate STEM students how to effectively peer review each other's texts. This project involves collaborating in the design of an online peer review platform that also functions as an analytical tool for collecting and studying data about how students provide and respond to peer review. The platform incorporates natural language processing and sentiment analysis to analyze students' responses in cognitive, interpersonal, and intrapersonal domains. This year, WRAP included undergraduate subjects in biology, materials science, mathematics, and computer science in the study. Preliminary results were presented at the fourth International Conference on Writing Analytics in January. This project will continue into the next academic year.

Last summer, WRAP received a three-year grant of \$240,000 from the Davis Educational Foundation to collaborate with science and engineering faculty to produce "disciplinary reasoning diagrams" of six different STEM fields. These reasoning diagrams function as discipline-specific maps that visualize relationships between concepts and the reasoning patterns that connect them. Students can use the diagram throughout the composing process to map the relationship of concepts in an experiment, to scaffold the process of reading background literature in the field, to storyboard a slide presentation or design a poster, and to outline paths of explanation for communicating technical knowledge to various audiences. Because these diagrams are visual and schematic, they can be remembered easily, and thus aid not only in preparing to communicate to a specific audience and in a given context, but also in improvising or adapting to audiences in live situations. Before receiving the grant, WRAP had completed a reasoning diagram in materials science and engineering. This year the diagram was completed for CMS. WRAP has presented elements of its methodology, its existing diagrams, and the associated pedagogy at the Professional Communication Society, the American Society for Engineering Education, the Writing Research Across Borders conference, and the Re-contextualizing Knowledge conference hosted in March at Tübingen University in Germany.

Finally, with the aid of an Alumni Funds grant, ArchiMedia has been developing Metalogon, an online tool for rhetorically analyzing speeches and oral presentations. The platform allows teachers and students to upload video recordings of presentations and to embed commentary on rhetorical elements, which plays back in real time. The tool provides a framework of concepts about the development of ideas, structure, style, and delivery, and as students and instructors use these concepts to provide feedback, the tool also captures annotated segments of the videos for an online library of examples of each rhetorical element. In this manner, Metalogon is both a feedback and peer review application, and also, over time becomes a compendium of discipline- and genre-specific teaching examples. This platform is now functional and will be used for the first time in 3.014 Materials Laboratory and 21W.016 Writing and Rhetoric: Designing Meaning in fall 2017.

Overall, WRAP has had a very successful year in both the lab and the classroom, and continues to fulfill its mission of providing research-based and innovative communication instruction for the 21st century.

The Writing and Communication Center

The Writing and Communication Center (WCC) offers free professional instruction and advice to the MIT community, including undergraduates, graduate students, postdocs, faculty, staff, and alumni. The WCC is staffed completely by experts in such fields as

rhetorical theory, composition studies, speech theory, and teaching English as a second language (ESL). All are MIT lecturers and published writers. All are experienced college classroom teachers of various forms of communication and all have taught at MIT for many years. Not counting the director (who founded the WCC in 1982), these WCC lecturers have a combined 133 years' worth of experience teaching at MIT, ranging from four to 24 years. Thus, WCC lecturers are intimately familiar with the expectations, conventions, and genres of the subjects studied at MIT. Regardless of the clients' academic discipline, WCC lecturers teach them how to deepen their ideas and develop their content, how to fine-tune their documents and conference presentations for very specific and specialized audiences, how to sharpen their critical thinking and analysis, and how to improve their writing style and presentations.

Unlike other MIT writing labs, the WCC is a teaching institution—its motto, Be a Better Writer, embodies its dedication to instructing clients rather than simply editing or proofreading papers.

National and international writing center directors and professors visited MIT's WCC to learn how a professional writing center is created and run (from Russia, the Netherlands, and from Princeton and the College of Engineering at Cornell University).

During AY2017, 1,040 unique clients (AY2016, 1,008) consulted the WCC 3,238 times (AY2016, 2,691). Of those clients, 784 (75%) were nonnative speakers of English (AY2016 708, 70%). The nonnative speakers of English made 2,654 visits (82%) in AY2017 (AY2016, 2,216, 82%). The table shows the percentages by client type.

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	Unique clients	Client visits	
Undergraduate students	27% (AY2016, 30%)	16% (AY2016, 20%)	
Graduate students	48% (AY2016, 54%)	48% (AY2016, 60%)	
Postdocs	15% (AY2016, 13%)	19% (AY2016, 18%)	
Faculty	1% (AY2016, <1%)	2% (AY2016, <1%)	
Visiting scientists and scholars, alumni, spouses, special students	9% (AY2016, 3%)	14% (AY2016, 2%)	
All ESL clients	75% (AY2016, 70%)	82% (AY2016, 82%)	

Table 1. Percentages of Clients and Visits by Client Type, AY2017

The usage rate was 88% for AY2017 (AY2016, 82%). The WCC's continuing high usage rate (experts consider 50% good) is a continuing testament to the best practices and superior service offered by the WCC's lecturers.

Additional Services

• Throughout the year, WCC lecturers worked with the MIT Graduate Student Council's week-long De-stress your Dissertation! series, giving presentations and individual instruction during group writing sessions.

- Throughout the year, Steven Strang, WCC's director, ran weekly meetings of the MIT Writers Group with six to 12 people attending each session, including undergraduate students, graduate students, staff members, and faculty. The director began the group in 2002.
- In fall 2016, the WCC sponsored a blog writing workshop for members of the Teaching and Learning Lab conducted by Rebecca Thorndike-Breeze.
- In the fall, the WCC sponsored a 90-minute writing workshop for CMS.100 Introduction to Media Studies, run by Thorndike-Breeze.
- During IAP 2017, Steven Strang gave a presentation to the Faculty Partners group about how to improve their presence and confidence in certain settings, such as interviews.
- During IAP 2017, the WCC sponsored Marilyn Levine's workshop "Align Your Story" about organizing scientific and technical writing beyond the superficial level of headings.
- During IAP 2017, Thorndike-Breeze co-created and taught two Wikipedia edita-thons to train new editors and to improve Wikipedia articles and to diversify Wikipedia editorship and content.
- During IAP 2017, the WCC sponsored Thalia Rubio's workshop "How to Write an Effective Abstract."
- During IAP 2017, the WCC taught 21W.794 Graduate Technical Writing Workshop, a three-credit graduate writing course for students who had failed the Skills Test: Scientific and Engineering Writing. For the eighth straight year (since 2010), WCC lecturer Pamela Siska taught all sections of this course with advice from and supervision by the center's director.
- During spring 2017, the WCC taught 21W.799 Independent Study in Writing, a three-credit graduate writing course for students who were not able to take 21W.794 Graduate Technical Writing Workshop. The course was taught as a tutorial and had 16 students.
- During spring 2017, the WCC sponsored two Cover Letter Workshops for the Spouses and Partners Career Connect, conducted by Thorndike-Breeze.
- During spring 2017, The WCC sponsored two workshops for the MIT Energy Initiative (run by Thalio Rubio): "How to Create Effective Poster Presentations."

Survey Results

The center uses the same seven-point Likert scale used for course evaluations; the key statement is "This session was very helpful" and clients can circle any number from 1 (strongly disagree) to 7 (strongly agree).

WCC's staff members distinguished themselves with impressive results. Clients' anonymous survey forms, filled out after each consultation and deposited in a locked box, gave WCC lecturers a rating of 6.75 (AY2016, 6.69).

Statement	7	6	5	4
	84%	12%	3%	1%
This session was very helpful.	(AY2016,	(AY2016,	(AY2016,	(AY2016,
	78%)	17%)	5%)	%)
I learned something new about writing or oral presentation.	81%	12%	5%	2%
	(AY2016,	(AY2016,	(AY2016,	(AY2016,
	77%)	16%)	5%)	2%)
Because of this session, I can handle a similar writing/speaking situation better next time.	83%	11%	4%	1%
	(AY2016,	(AY2016,	(AY2016,	(AY2016,
	78%)	15%)	6%)	1%)

Table 2. Writing and Communication Center Anonymous Survey Results, AY2017

Faculty Award Summary

Vivek Bald

Fellowships and Honors

James A. and Ruth Levitan Prize

Dean's Fund for Professional Development

Seminars and Colloquia

Invited panel presentation for Mellon Sawyer Seminar, "Colonialism, Slavery, and the Archive: Old and New Practices," Tufts University, Medford, MA, November 2016.

Invited keynote address marking the launch of University of Illinois at Chicago's Program in Global Asian Studies, "Across Oceans, Across Borders, Across Town: The Global and Local in South Asian Diaspora Histories," Chicago, IL, October 2016.

Marcia Bartusiak

Book *Black Hole* was a finalist for the Phi Beta Kappa Science Writing Award.

Black Hole was named an "Outstanding Academic Title" by the American Library Association.

Invited lecture at Wheaton College, MA, on Black Hole.

Revised edition of *Einstein's Unfinished Symphony* was published by Yale University Press.

Publications

"Like This World of Ours," Natural History, May 2017.

"How to Weigh the World," nautil.us/blog, March 6, 2017.

"The Cheshire Cat," Natural History, November 2016.

Book Reviews

Review of In the Shadow of the Moon, by Anthony Aveni, Choice, September 2017.

Review of Convergence, by Peter Watson, Washington Post, March 9, 2017.

Federico Casalegno

In addition to his MIT Design Lab leadership, Casalegno taught the MIT Professional Education course "Innovation: Beyond the Buzzword," which introduced participants to concepts in design thinking and innovation. The course was customized for the United Arab Emirates and presented to ministers in Dubai in October 2016.

Sasha Costanza-Chock

Publications

"Toward Transformative Media Organizing: LGBTQ and Two-Spirit Media Work in the United States," Media, Culture, and Society, 39 no. 2 (2017). With Chris Schweidler and the Out for Change Transformative Media Organizing Project.

"Notes on Design Justice and Digital Technologies," Design Justice, 3 (2017).

"A Provocation on Behalf of the Excluded," in *The Communications Crisis in America and How to Fix It*, ed. Lewis Friedland and Mark Lloyd, Palgrave Macmillan, 2016. With Ernest J. Wilson and Michelle Forelle.

"Grassroots-TechnologInnen: Kritische Medienkompetenz in der Immigrantenbewegungen in den USA [trans.: Grassroots Technologists: Critical Digital Media Literacy in the Immigrant Movement in the USA]," *Forschungsjournal Soziale Bewegungen*, April 2016.

Grants and Awards

Mitsui Career Development Professor, continued for the second year of a three-year term.

Position as Faculty Affiliate at the Berkman-Klein Center for Internet and Society at Harvard was renewed.

Presentations

Plenary moderator, "Data and Power," Allied Media Conference, Detroit, MI, June 2017.

Workshop co-facilitator, "Design Justice Network Planning Session," Allied Media Conference, Detroit, MI, June 2017.

Workshop co-facilitator, "Technology for Social Justice Field Scan Workshop," Allied Media Conference, Detroit, MI, June 2017.

Invited respondent, "Global Interventions in Communication Policy, Rights, and Justice: Reflections on the International Panel on Social Progress," International Communications Association, San Diego, CA, May 2017.

Co-organizer, "Media Justice: Race, Borders, Disability, Data," preconference to the International Communications Association conference, San Diego, CA, May 2017.

Invited panel chair, "Community Leaders for Trans* Liberation," Harvard LGBTQ Conference: Advocacy, Agency, and Alliances for a Changing World, Harvard Law School, Cambridge, MA, February 2017.

Roundtable panelist, "Feminisms Unbound: Trans/Multi/Mediations," The Consortium for Graduate Studies in Gender, Culture, Women, and Sexuality, MIT, Cambridge, MA, February 2017.

Panel organizer and chair, "How to Build Platform Coops: Co-Design, Lean Product Development, and Free Software FTW," Platform Cooperativism conference, New School, New York, NY, November 2016.

Panelist, "Media in Action: A Field Scan of Media and Youth Organizing in the United States," Competitive Papers in Activism and Social Justice, National Communications Association, Philadelphia, PA, November 2016.

Panelist, "Towards Transformative Media Organizing," GLBTQ Concerns: Identity, Advocacy, and Agency, National Communications Association, Philadelphia, PA, November 2016.

Invited panelist, "Workshop: Transformations of Public Space," Vilnius, Lithuania, October 2016.

Invited speaker, "Industries of Crisis, Aesthetics of Dissent," Vilnius, Lithuania, September 2016.

Invited panelist, "Public discussion: Role of the Museum in a Network Society," Kaunas, Lithuania, September 2016.

Panelist, "Transformative Media Organizing: LGBTQ Media Activism in the USA," International Association for Media and Communication Research, Leicester, UK, July 2016.

Respondent, Emerging Scholars Network panel on Social Media and Social Change, International Association for Media and Communication Research, Leicester, UK, July 2016.

Co-Design Studio

The Collaborative Design Studio in Civic Media, founded at MIT in 2012 by associate professor of civic media Sasha Costanza-Chock, works in collaboration with community

partners to generate civic media projects that are grounded in real-world needs. The Co-Design Studio partners with community-based organizations, and uses co-design and lean startup methods for project ideation, design, prototyping, testing, launch, and stewardship. Most activities take place in the context of a service-learning, project based course for MIT students (CMS.362/862 Civic Media Collaborative Design Studio). In 2017, the Co-Design Studio focused on youth media, gentrification, and displacement. For this version of the course, the Co-Design Studio wanted to develop media projects that respond to the current political, cultural, economic, and environmental crisis with youth-led visions of a more just and creative future. It partnered with ZUMIX and the Urbano Project, two youth arts and media organizations in the Boston area, and NuVu Studio, an innovation school for middle and high school students in Cambridge.

Junot Díaz

Inducted into the American Academy for Arts and Letters in 2017.

Kapnick Distinguished Writer-in-Residence at the University of Virginia, January 2017.

Kurt Vonnegut Jr. Award / McFaddden Memorial Lecture, March 2017.

Publication

"The Mongoose and the Émigré," New York Times Magazine, May 17, 2017.

D. Fox Harrell

Grants, Fellowships, and Honors

National Science Foundation STEM+Computing Grant, "Toward Using Virtual Identities in Computer Science Learning for Broadening Participation," \$599,941 over 29 months, 2015–2018.

Qatar Computing Research Institute–Computer Science and Artificial Intelligence Laboratory (QCRI-CSAIL) Alliance, "Understanding and Developing for Cultural Identities Across Platforms: Value-Driven Design Principles and Best Practices in a Qatari Context," \$750,000 over 3 years, 2015–2018.

Seminars and Colloquia

Keynote talk, "Virtual Selves and Learning," Computer-Supported Cooperative Learning Conference, Philadelphia, PA, June 20, 2017.

Invited panelist, "Diversifying Barbie and Mortal Kombat: Where Are We Now?," MIT, Cambridge, MA, February 16, 2017. With Yetunde Folajimi, Quinn Murphy, and TreaAndrea Russworm.

Invited talk, "Selves in Numbers: Virtual Identities for Transformative Impact," VOR Conference, CENTRO (Institute for Design, Cinema, and Television), Mexico City, February 16, 2017.

Invited talk, "Modeling Social Dimensions of Virtual Identities," QCRI, Doha, Qatar, December 19, 2016.

Invited talk, "Interactive Narrative and VR for STEM Inclusion and Social Engagement," White House, Office of Science and Technology Policy, Washington, DC, December 12, 2016.

Invited talk, "Art + Science: Computing Emotion," Hirshhorn Museum, Smithsonian, Washington, DC, October 20, 2016. With Antoine Catala.

Keynote talk, "Virtuality, Narrative, and Self," Reality, Virtuality, Hackathon, MIT Media Lab, Cambridge, MA, October 7, 2016.

"The Qatar-AIRvatar Project: Toward Design Principles for Culturally Situated Virtual Identity Systems," MIT CSAIL-QCRI Fall Meeting, Cambridge, MA, October 6, 2016. With Haewoon Kwak.

Invited chair, "Transforming the Classroom for the 21st Century," Ford Foundation Fellows Conference, Irvine, CA, September 24, 2016. Panelists Anna Everett and Angelo Baca.

Multimedia Project

"Loss, Undersea," 2016.

Publications

"Reimagining the Avatar Dream: Modeling Social Identity in Digital Media," *Communications of the ACM*, 60 no. 7 (2017). With Chong-U Lim.

"Subjective Computing and Improvisation," in *Oxford Handbook of Critical Improvisation Studies*, ed. George E. Lewis and Benjamin Piekut, vol. 2, Oxford University Press, 2016.

Refereed Publications

"Culturally-Grounded Analysis of Everyday Creativity in Social Media: A Case Study in Qatari Context, *Proceedings of the ACM Conference of Creativity and Cognition*, Singapore (June 27–30, 2017). With Sarah Vieweg, Haewoon Kwak, Chong-U Lim, Sercan Şengün, Ali Jahanian, and Pablo Ortiz.

"Toward Understanding the Impact of Game Skins on Performance, Engagement, and Self-Efficacy in Educational Games," *Proceedings of the American Education Research Association Conference*, San Antonio, TX (April 27–May 3, 2017). With Dominic Kao.

"Exploring the Effects of Dynamic Avatars on Performance and Engagement in Educational Games," *Proceedings of the 12th Games+Learning+Society Conference*, Madison, WI (August 17–19, 2016). With Dominic Kao.

"Highlighting MazeStar: A Platform for Studying Avatar Use in Computer Science Learning Environments," *Proceedings of the 12th Games+Learning+Society Conference*, GLS Showcase, Madison, WI (August 17–19, 2016). With Dominic Kao, Chong-U Lim, Sneha Veeragoudar Harrell, Maya Wagoner, and Helen Ho.

"Discovering Social and Aesthetic Categories of Avatars: An Artificial Intelligence Approach Using Image Clustering," *First Joint International Conference on Digital Games Research Association-Foundations of Digital Games*, Dundee, Scotland (August 1–6, 2016). With Chong-U Lim and Antonios Liapis.

Selected Press

John Pavlus, "Models of Identity: Fox Harrell Extracts the Hidden Values in Technical Systems," *Spectrum*, 2017.

Andrea López, "Prejuicios y estereotipos en las redes: cómo terminar con ellos (Prejudices and Stereotypes on Networks: How to End Them)," *TecReview*, February 17, 2017.

Sharon Lacey, "Face to Face with 'The Enemy," MIT News, December 2, 2016.

Randy Kennedy, "Meeting 'the Other' Face to Face," New York Times, October 26, 2016.

Heather Hendershot

Books

Open to Debate: How William F. Buckley Put Liberal America on the Firing Line, New York: HarperCollins, 2016.

Book Excerpts

"Ronald Reagan, Firing Line, and the Triumph of the Right" (*Open to Debate* excerpt), *Nationalinterest.org*, October 3, 2016.

"William F. Buckley Was No Feminist, But He Was an (Unintentional) Ally" (*Open to Debate* excerpt), *Politico.com*, October 2, 2016.

Article

"On Political Rhetoric and Outsider Political Candidates," *Election Insights 2016: Research-Based Perspectives from MIT*, October 2016.

Lectures and Conference Presentations

"Mediating the Sacred and the Profane: William F. Buckley, *Firing Line*, and Religion," public lecture series, Young Harris College April 12, 2017.

"Conspiracies, Communists, and the Dumpsters of History . . . Or How the John Birch Society Used Filmstrips to Make Enemies and Influence People," Society for Cinema and Media Studies, Chicago, IL, March 2017. "Chivalrous Pugilism: How William F. Buckley Tried to KO Feminism," University of West Georgia, March 2017.

"Firing Line: Steering Wheel and Compass of the Modern Conservative Image," American Historical Association, Denver, CO, January 2017.

"Chivalrous Pugilism: How William F. Buckley Tried to KO Feminism," Women's and Gender Studies, MIT, Cambridge, MA, December 8, 2016.

"Trump's Victory: What Does It Mean for You?" Center for International Studies, MIT, Cambridge, MA, December 2, 2016.

"A Crash Course in *Firing Line*," Hoover Institution, Washington, DC, November 18, 2016.

"Strikes, Riots, and Muggers: How Mayor Lindsay Weathered New York City's Image Crisis," Peabody TV Archives Symposium, University of Georgia, October 28, 2016.

Selected Media Appearances and Interviews

"Get with the Program: Firing Line," Current magazine online program, May 24, 2017.

Interview about Open to Debate for "The Gist," Slate podcast, January 18, 2017.

Interview about *Open to Debate* for *Jefferson Exchange*, National Public Radio, January 3, 2017.

C-SPAN book TV episode on Open to Debate, initially aired December 3, 2016.

Interviewed about *Open to Debate* for *Arts Fuse: Boston's Online Arts Magazine*, October 19, 2016.

Interviewed about *Open to Debate* for *Byers and Co.*, WSOY 1340 AM, Decatur, IL, October 12, 2016.

Interviewed about Open to Debate for Stand Up!, Sirius XM Radio, October 11, 2016.

Interviewed about Open to Debate for Wall Street Journal Opinion Journal, October 11, 2016.

Interviewed about *Open to Debate* for *Weekend Talk with Tron Simpson*, KVOR 740 AM, Colorado Springs, CO, October 9, 2016.

Interviewed about Open to Debate for Top of Mind, BYUradio, October 7, 2016.

Interviewed about Open to Debate for Conservative Book Club podcast, October 7, 2016.

Interviewed about *Open to Debate* for *Critique*, WUSB 90.1 FM, Stony Brook, New York, October 3, 2016.

Interviewed about *Open to Debate* for *The Federalist Radio Hour* podcast, September 30, 2016.

Helen Lee

"Blood Knot," Ploughshares, 43 no. 1 (2017): 100–109.

Tom Levenson

Book

Einstein in Berlin, New York: Random House, 2017. First electronic edition and reissue of 2004 book.

Articles

"The Scientist and the Fascist," Atlantic Monthly (online) June 9, 2017.

"Why We Need NATO—In a Single Bullet," Boston Globe, May 6, 2017.

"Human Health Needs a Common Defense. Too Bad We Blew It" *Boston Globe*, March 4, 2017.

"Let's Waste More Money on Science," Boston Globe, December 10, 2016.

"The Sexist Response to a Science Book Prize," *Atlantic Monthly* (online), September 30, 2016.

Book Reviews

"James Gleick Looks at History, Physics of Time Travel," *Boston Globe*, September 29, 2016.

Award

Shortlisted (finalist) for the Royal Society Insight Investment Science Book Prize, September 2016 for *The Hunt for Vulcan*, New York: Random House, 2015.

Alan Lightman

Articles

"Empowering Girls in Cambodia Starts with Dormitories," News Deeply, March 16, 2017.

"My Personal Heroes in Science: Alan Lightman on William Gerace," nautil.us/blog, December 30, 2016.

Lectures

Panel, New School, New York, April 21, 2017.

Conversation, Butler University, Indianapolis, IN, April 20, 2017.

Veritas, MIT, Cambridge, MA, April 18, 2017.

King Abdullah University of Science and Technology, Jeddah, Saudi Arabia, April 17, 2017.

Newbridge on Charles, Dedham, MA, April 13, 2017.

Sidney Pacific, MIT, Cambridge, MA, April 10, 2017.

Panel, Library of Congress, Washington, DC, April 3, 2017.

Rivers School, Weston, MA, March 27, 2017.

Humanist Hub of Harvard, Cambridge, MA, February 26, 2017.

Talk about Harpswell, Asia Center, Harvard, Cambridge, MA, February 24, 2017.

Reading at Politics and Prose, Washington, DC, February 10, 2017.

Reading, Magars and Quinn, Minneapolis, MN, January 30, 2017.

Lecture about Cambodia, Christian Brothers University, Memphis, TN, November 18, 2016.

About Accidental Universe, Newbridge Court, Dedham, MA, November 16, 2016.

About Accidental Universe, Kerem Shalom, November 13, 2016.

About Einstein's Dreams, Boston Public Library, November 3, 2016.

Reading, Red Hen, Pasadena, CA, October 30, 16.

Osher Lifelong Learning, Tufts, Somerville, MA, October 25, 2016.

Kahal V'raira, Lexington, MA, October 16, 2016.

Institute for Cross-Disciplinary Engagement at Darmouth, Hanover, NH, October 1, 2016.

Festival of Ideas, Louisville, KY, September 28, 2016.

Awards

Harvard Humanist Hub, inaugural winner of the Humanism in Literature Award, 2017.

Honorary Doctorate in Humane Letters, Colgate University, May 2017.

Seth Mnookin

Academic Positions

Promoted to professor.

Honors and Awards

Harvard Medical School Media Fellowship, spring 2017.

Articles and Other Media

Undark.podcast science media correspondent, September 2016 to present.

"High Anxiety," review of *Can't Just Stop: An Investigation of Compulsions*, by Sharon Begley, New York Times Book Review, March 8, 2017.

"The Other Big Vote: The Future of Science Journalism," Undark, October 25, 2016.

"Science, Journalism, and the Legacy of Patient H. M.," Undark, October 4, 2016.

"Public Shaming of Overdosed Adults by Police Department's Facebook Post is 'Morally Repugnant," *STAT*, September 9, 2016.

"Man Without a Past," review of *Patient H. M.: A Story of Memory, Madness, and Family Secrets,* by Luke Dittrich, New York Times Book Review, September 4, 2016.

Talks and Lectures

"The Panic Virus Through the Lens of Virology and Biomedical Sciences," University of Maine, Marsh Island, Orono (via Skype), April 2017.

"Race and Racism in the 2016 Presidential Election," Communications Forum with Jamelle Bouie (moderator), MIT, Cambridge, MA, February 2017.

"Responding to the Opioid Overdose Epidemic in our Community," Office of Community Development and Substance Abuse forum, MIT, Cambridge, MA, February 2017. With Jared Owen.

"An Evening with Judge John Hodgman," Communications Forum with John Hodgman (moderator), MIT, Cambridge, MA, November 2016.

"The Media and Undiagnosed Diseases," Undiagnosed Diseases Network Steering Committee Meeting, Washington, DC, July 2016.

"Lessons from Narrative Nonfiction," Journosplain, New Haven, CT, July, 2016.

Other Positions and Honors

Elected Board Member, National Association of Science Writers.

Member, American Academy of Arts and Sciences "Public Face of Science" Planning and Advisory Committee.

Member, Governance Committee, National Association of Science Writers.

Member, Knight Science Journalism Program Advisory Board.

Nick Montfort

Montfort published three unconventional books of poetry, all involved with digital media in different ways. The first, *2x6*, a collaboration with six others, was published in the Global Poetics series by Los Angeles press Les Figues; the postconceptual press Troll Thread published Montfort's computer-generated *Autopia*; and Montfort's press, Bad Quarto, published *Sliders* using the Espresso Book Machine at the MIT Press Bookstore.

His publications also included three book chapters and a co-authored journal article, and Montfort gave more than a dozen invited talks at places including the California Institute of Technology, the University of Zurich, the New Museum, Northwestern University, and local and smaller schools. His lab, the Trope Tank, was the context for a great deal of creative work, including many very short creative computer programs by lab members and a salon event where people shared their work within the MIT community. His writing students continued to produce work that made its way into MIT exhibitions, contests, online sites, and publications; one of his former students even became a Jeopardy champion.

Montfort read poetry at the Onassis Cultural Center in Athens, in Rhinebeck, and in several New York City venues. He continued to participate in the demoscene, a computer community, and had winning music and poetry productions. Synchrony—the demoparty for which he is lead organizer—took place this January on a train, beginning in New York City and ending in Montreal, Canada.

James Paradis

James Paradis is Robert M. Metcalfe Professor of Writing and Comparative Media Studies and faculty director of HyperStudio, CMS/W's research group for digital humanities.

Lisa Parks

Book

Life in the Age of Drone Warfare, Durham, NC: Duke University Press, 2017. Edited with Caren Kaplan.

Peer-reviewed Journal Articles and Papers

"I have the government in my pocket': Social Media Users in Turkey, Transmit-Trap Dynamics, and Struggles over Internet Freedom," *Communication, Culture and Critique*, 10 no. 4 (2017). With Hannah Goodwin and Lisa Han.

"Limits to Internet Freedoms: Being Heard in an Increasingly Authoritarian World," Proceedings of ACM Limits, June 2017, Santa Barbara, CA.With Michael Nekrasov and Elizabeth Belding.

"From Platform Jumping to Self-Censorship: Circumvention Practices and 'Internet Freedom' in Zambia," *Communication and Critical/Cultural Studies*, 14 no. 3 (2016):221–237. With Rahul Mukherjee.

"Reinventing television in rural Zambia: Energy Scarcity, Connected Viewing, and Cross-Platform Experiences in Macha," *Convergence*, 22 no. 4 (2016):440–460.

Book Chapters and Essays

"Drone Media: Grounded Dimensions of the US Drone War in Pakistan," in *Place, Space and Mediated Communication,* ed. Carolyn Marvin and Sun-ha Hong, New York: Routledge, 2017.

"Signal Territories: Broadcast Infrastructure, Google Earth, and Phenomenology," in *Conditions of Mediation: Phenomenological Perspectives on Media*, ed. Tim Markham and Scott Rodgers, Switzerland: Peter Lang Publishing, 2017.

"Infrastructure," *Keywords in Media Studies*, ed. Laurie Ouellette and Jonathan Gray, New York University Press, 2017.

"Drones, Vertical Mediation, and the Targeted Class," *Feminist Studies*, 42 no. 1 (2016): 227–235.

"Walking Phone Workers," reprinted in *Foundations of Mobile Media Studies: Essential Texts on the Formation of a Field*, ed. Jason Farman, London: Routledge, 2016.

"Infrastructure and Affect," Technosphere Magazine (Berlin, Germany), 2016.

Interview of John Caldwell, Society of Cinema Studies *Fieldnotes*, podcast audio, April 1, 2016.

Lectures and Conference Presentations

Invited speaker, "The FlowNet Project: Transnational Investigations of Social Media Use and 'Internet Freedom," Microsoft Research Colloquium, Cambridge, MA, August 9, 2017.

Conversation with Trevor Paglen, invited panelist, "The Invisible Panel," CAST Symposium: Being Material Conference, MIT, Cambridge, MA, April 21–22, 2017.

Invited speaker, "Illicit Capture of Mobile Phone Signals," Seminar in Media and Political

Theory: Capture, Concordia University, Montreal, April 14–15, 2017.

Panelist, "Aero-Orbital Platforms and the War on Terror," Society for Cinema and Media Studies, Chicago, IL, March 22–26, 2017.

Invited keynote, "Aero-Orbital Platforms and Vertical Mediation," Technologies of Space: Verticality, Volume, Infrastructure Symposium, University of Oslo, March 3, 2017.

Invited speaker, "Mediating Animal-Infrastructure Relations," Visual and Environmental Studies, Screen Studies Workshop, Harvard University, Cambridge, MA, February 23, 2017.

Keynote speaker, "Mediating Animal-Infrastructure Relations," Becoming Infrastructural, Becoming Environmental, Transmediale Festival, Berlin, February 2–5, 2017.

Invited theme panelist, "Surveillance and the Spectrum: The Globalization of Cell Phone Interception Technologies," MLA Conference, Philadelphia, PA, January 5–8, 2017.

Edward Schiappa

Awards

National Communication Association, Charles H. Woolbert Research Award, for "The Parasocial Contact Hypothesis," 2016. With Peter B. Gregg and Dean E. Hewes.

Publications

"Persistent Questions in the Historiography of Early Greek Rhetorical Theory," in *Logos without Rhetoric: The Arts of Language before Plato*, ed. Robin Reaes, University of South Carolina Press, 2017.

"Parasocial Communication." in *The SAGE Encyclopedia of Communication Research Methods*, ed. Mike Allen, Thousand Oaks, CA: Sage, 2017. With Peter B. Gregg.

"Rhetoric," in *The International Encyclopedia of Communication Theory and Philosophy*, ed. Klaus Bruhn Jensen, New York: Wiley-Blackwell, 2016.

Presentations

Moderator, Feature Panel on Careers in the Arts, Humanities, and Social Sciences, MIT INSPIRE, April 10, 2017.

Presentation to MIT Center for Civic Media on media coverage of transgender issues in light of the Parasocial Contact Hypothesis, January 26, 2017.

T. L. Taylor

T. L. Taylor continued her research and advocacy work within new media and gaming. She completed the manuscript for her forthcoming book from Princeton University Press on the subject of media transformations and game live streaming. As director of research for AnyKey—a partnership between Intel and the Electronic Sports League, which fosters and supports inclusion and diversity in competitive digital gaming, also known as "e-sports"—she facilitated several public-private stakeholder workshops and authored subsequent white papers on the topics of collegiate e-sports and online moderation and community management.

Taylor returned to the White House in 2016 to participate in another e-sports event. She was also a keynote speaker and invited panelist at a number of academic conferences and industry events, as well as an invited participant at several workshops, including at Riot Games and Intel.

She continues to be sought out as an expert in the domain of gaming and has been interviewed and quoted in a variety of popular press outlets including the *New York Times* and the *Los Angeles Times*.

In 2017 Dr. Taylor was named as a fellow into of the Higher Education Video Game Alliance and was awarded distinguished scholar status by the Digital Games Research Association.

William Uricchio

Conference

Update or Die: Future Proofing Emerging Digital Documentary Forms, organized by the MIT Open Documentary Lab and Centre Phi and held at Centre Phi, Montreal, May 5, 2017.

Selected Articles

Virtually There: Documentary Meets Virtual Reality, a conference report sponsored by the John D. and Catherine T. MacArthur Foundation.

Moments of Innovation update and relaunch, a joint project with the International Documentary Festival Amsterdam's DocLab that expands the idea of documentary across media and history.

"La télévision et les arts: au-delà de la traduction et de la transmission" in *Une télévision allumée: les arts dans le noir et blanc du tube cathodique*, ed. Viva Paci, Paris: Presses Universitaires de Vincennes, 2017.

"Things to Come: The Possible Futures of Documentary from a Historical Perspective" in i-docs: *The Evolving Practices of Interactive Documentary*, ed. Judith Aston, Sandra Gaudenzi and Mandy Rose, New York: Wallflower Press, 2017.

"Introduction" in *Showing and Telling: Film Heritage Institutes and Their Performance of Public Accountability,* ed. Nico de Klerk, Wilmington, DE: Vernon Press, 2017.

"VR is Not Film. So What Is It?" Immerse 8, November 2016.

"Data, Culture, and the Ambivalence of Algorithms," in *The Datified Society: Studying Culture Through Data*, ed. Mirko Tobias Schäfer and Karin van Es, Amsterdam: University of Amsterdam Press, 2016.

"Wandering Through the Residues of a Present Past" in *Memory Flows Like the Tide at Dawn*, ed. Alexandra Sophia Handal, Roskilde: Museet for Samtidskunst, 2016.

Talks

"Virtual Reality and the Ethnographic Tradition," University of Antwerp, Visual and Digital Cultures Research Center, Antwerp, June 9, 2017.

"Algorithms, Culture and the Humanistic Tradition: Three Lectures," University of Zurich, June 2–3, 2017.

"Beyond the Box: Research Methods for Expanded Television," University of Stockholm, May 24, 2017.

Keynote, "Re-Framing Identities via Media Practices," University of Hamburg, Situated in Transition Conference, May 18, 2017.

Keynote, "Preserving a Precarious Ecosystem: The Special Needs of Interactive Documentaries," Update or Die, MIT and Centre Phi, Montreal, May 4, 2017.

Keynote, "Expanded Montage: Lessons from the Interactive Documentary," Où [en] est le cinema?, Cinémathèque Québécoise, Montreal, May 3, 2017.

Keynote, "VR Nonfiction—Things to Come from a Historical Perspective," World VR Congress, Bristol, UK, April 12, 2017.

Keynote, "Interactive Cinema at the 1967 Expo: The Kinoautomat," Festival of the Arts, Montreal, March 25, 2017.

"Embodiment in the Moving Image, Lessons from Film to VR," MIT Design and Computation Group, Cambridge, MA, February 24, 2017.

Keynote, "Interacting with Space: Location-based Documentary," East Doc Platform, Prague March 6, 2017.

Keynote, "Documentary Futures," University of Miami, FL, December 15, 2017.

"Re-Imaging the Documentary: Arguments for New Forms," University of St. Andrews, Scotland December 2, 2017.

"Mobility and the Memory Palace: Towards a location-based archive," Colloque international mobile media (organizer of a *'carte blanche'* on ODL's work, including William Uricchio, Sandra Rodriguez, Mandy Rose and David Dufresne), Sorbonne Paris III, Paris, December 2, 2016.

Keynote, "Stability and Other Myths of the Cinema," Cinémathèque Française, Paris, International Symposium: Journey to the Center of the Cinema Machine, November 30, 2016.

"Analog and Digital Cities: A Discussion with Rem Koolhaas and Bregtje van den Haag," International Documentary Festival Amsterdam, Amsterdam, November 20, 2016.

"Awkward Media," International Documentary Festival Amsterdam, Amsterdam, November 19, 2016.

Keynote, "Access, Participation . . . Community," BBC Changing Media Landscape, Manchester, November 14, 2016.

Master class, "From Fixed, to Interactive, to Immersive: Undulations in Form and Function," University of Michigan, Ann Arbor, November 3–4, 2016.

Keynote, "Six Theses on Virtual Reality," Festival Nouveau Cinema, Montreal, October 13, 2016.

Keynote, "Platforms: Technology and Cultural Form," Creative Industries Summit, Nottingham, UK, June 28, 2016.

"Where Digital Journalism and Interactive Documentary Intersect," I-Docs 2016, Bristol, UK, March 2, 2016.

Grants Awarded

John D. and Catherine T. MacArthur Foundation, for Planning Grant for co-creation studio, MIT Open Documentary Lab (\$85,000).

Ford Foundation, for researching and writing a whitepaper on co-creation, MIT Open Documentary Lab (\$125,000).

Oculus Story Studio, in-kind equipment support for CMS.S60 Hacking VR course (\$50,000).

Jing Wang

Publications

When Internet Plus Meets the Nonprofit Sector, Beijing: Electronics Industry Publishing House, 2016. With Rongting Zhou.

"The Makers Are Coming! China's Long Tail Revolution," in *The Handbook of Cultural and Creative Industries in China*, ed. Michael Keane, Northampton, MA: Edward Elgar, 2016.

"The Characteristics of Web 2.0 Communication Culture" in *When Internet Plus Meets the Nonprofit Sector*, ed. Jing Wang and Rongting Zhou, Beijing: Electronics Industry Publishing House, 2016.

"The Trends of Euro-American Internet Philanthropy: Data4Good and the Platforms of Free Agents" in *When Internet Plus Meets the Nonprofit Sector*, ed. Jing Wang and Rongting Zhou, Beijing: Electronics Industry Publishing House, 2016.

"Leisure Culture and Cultural Capital," in *The World Looks at China: Twenty Years of Positions*, ed. Tani Barlow et al., Nanjing: Nanjing University Press, 2016.

Lectures

Invited, "1001 Nights and Media Ecologies in China and the US," Media Object Workshop, Radcliffe Institute of Advanced Studies, Harvard University, May 4 and 5, 2017.

Invited, "Internet Plus Public Good," SAP Software Solutions, Beijing, June 13, 2016.

Grants

Dunhe Foundation, China, NGO2.0 Philanthropy Map Project.

Shenzhen Futian government, China, web 2.0 training workshops in Shenzhen.

Ford Foundation, China, NGO2.0 Project.

Edward Schiappa Head