Comparative Media Studies/Writing Section

Overview

Academic year 2015–2016 was eventful at Comparative Media Studies/Writing (CMS/W). In addition to highlights, we would like to describe the following faculty promotions, fellowships, and awards.

Nick Montfort, a scholar of digital media with a focus on computational poetry, was promoted to full professor. Vivek Bald, a scholar, writer, and documentary filmmaker whose work focuses on histories of migration and diaspora particularly from the South Asian subcontinent, was promoted to associate professor with tenure.

Several CMS/W faculty members earned prestigious fellowships, using some or all of the past year to pursue advanced projects. Helen Elaine Lee won the Faculty Ambassador Award as part of MIT's multicultural awards (sponsored by the Institute Community and Equity Officer and the Office of Minority Education). T.L. Taylor received the Outstanding Rookie Advisor Award from the Office of the Dean for Undergraduate Education—the second consecutive year a CMS/W faculty member has been a recipient. Thomas Levenson received a number of awards, including the Levitan Prize in the Humanities and a fellowship from the Sloan Guggenheim Memorial Foundation; his latest book, *The Hunt for Vulcan*, has been shortlisted for the Royal Society's Insight Investment Science Book Prize, an award described by some as the "Nobel Prize of science writing." Jing Wang was also a recipient of the Levitan Prize and was awarded a fellowship at the Radcliffe Institute for Advanced Study. Sasha Costanza-Chock became a Mitsui Career Development Professor for a three-year term. Finally, Vivek Bald's 2013 *Lost Histories of South Asian America* was honored this year as best book by the Association for Asian American Studies and the Immigration and Ethnic History Society.

In the past academic year, CMS/W's undergraduate courses continue to be in high demand, particularly in relation to other courses that meet the HASS (Humanities, Arts, and Social Sciences) requirement. The CMS graduate program has maintained its high selectivity, admitting just 9% of applicants, and recent graduates have gone on to high-profile jobs and PhD programs in comparative media studies and related fields. In its role supporting MIT writers, CMS/W has seen remarkable utilization of the Writing and Communication Center (WCC): 82% of WCC's schedule openings are used, as compared with other schools' average of around 50%.

Lastly, CMS/W has had great success in advancing its mission through conferences and hackathons, the development and distribution/adoption of humanities-informed technology, frequent employment of Undergraduate Research Opportunities Program (UROP) students, multi-institution international collaborations, and the securing of roughly \$2 million in grants 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 through engaging with media industries and the arts in a time of rapid transformation.

CMS/W is devoted to understanding the ways in which 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 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 eighth year, the CMS undergraduate major enrolled 26 students, including nine students in the 21E/S (Humanities and Engineering/Science) joint major and eight double majors. Of the overall group, 13 were women. Eight majors graduated in AY2016, which brings to 104 the number of students who have graduated from the CMS undergraduate program since its inception as an experimental major. In 2016, CMS had four minors and 109 concentrators. During AY2016 CMS sponsored 79 UROP positions for pay or credit, along with another 19 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 Nike, Electronic Arts, MTV, Microsoft, Google, ImaginEngine, Oracle, Amazon, and the

Congressional Quarterly; others have pursued studies in theater arts, fine arts, or law. Many have gone on to leading graduate programs in the US and abroad.

Graduate Program

In 2016, the CMS graduate program received 93 applications and admitted nine students, including one underrepresented minority student who received a diversity fellowship from the Office of the Dean for Graduate Education. The program also graduated nine students with master's degrees. These recent graduates are already finding jobs at companies such as National Geographic and Performant Software. One graduate was accepted into a PhD program in MIT's Department of Urban Studies and Planning.

Undergraduate Writing Major

In 2016, three writing majors received degrees. Fifteen students majored in writing, including one student in the 21E (Humanities and Engineering) joint major and seven double majors. In addition, during AY2016 Writing had 11 minors and 76 concentrators. Writing majors have gone on to careers in journalism, fiction writing, education management, consulting, business analysis, technical writing, and public information.

Graduate Program in Science Writing

In 2016, the Graduate Program in Science Writing admitted eight students from among 43 applicants, including one underrepresented minority student who was awarded a diversity fellowship from the Office of the Dean for Graduate Education. The program also graduated seven students who now write for media outlets such as *National Geographic, Science News, Atlas Obscura, New Scientist,* and *Slate.* The program kicked off a successful collaboration with the Knight Science Journalism Fellowship program, providing four students as interns to write for the new *UnDark* magazine.

Research Groups

MIT Center for Civic Media

The MIT Center for Civic Media has charted a path towards informed, public-spirited innovation around the topic of information and citizen engagement. Over the last eight years, the center served as a bridge between the MIT Media Lab, with its history of technology innovation, and the CMS/W program, a leader in the field of new media scholarship. As its funding structure changed, however, the center's relationship with CMS/W is now largely at the graduate student level, with director Ethan Zuckerman frequently serving as CMS students' thesis advisor/reader and one or two graduate students developing their own tools and research in partnership with Media Lab collaborators.

In AY2016, these collaborations were best illustrated by CMS graduate student Gordon Mangum's ambitious work on Deepstream, a web platform that allows embedding of video—including livestreams—from all major video platforms (e.g., YouTube, Facebook Live) with contextual windows of related content added by hosts and viewers. While some have used Deepstream for fun things such as adding context to "Panda Cams," others have used it to stream, document, and better explain public protests, such as those at the Rio Olympics and in Iceland around the Panama Papers.

Creative Communities Initiative

The Creative Communities Initiative (CCI) had an active year working across several domains. It organized several events around the Dissolve Inequality project founded by Professor Ian Condry. With the help of CCI graduate students, the initiative organized the "Dissolve Unconference" in October 2015, drawing over 250 participants to explore aspects of inequality—economic, racial, gender, and more. In the spring, it held the Dissolve Inequality music summit, with researchers and musicians. On the gaming front, Professor T.L. Taylor and several CCI graduate students began work with the newly launched AnyKey initiative, a partnership between Intel and the Electronic Sports League to foster and support diversity in competitive digital gaming. Over the course of the year, Taylor's team led several workshops with top industry leaders in addition to carrying out fieldwork at a large tournament. These activities led to white papers and public panels at gaming conventions, and they are helping inform programmatic development within the initiative.

Education Arcade

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 been assisting the Tata Institute for Social Sciences in Mumbai in the CLIx project, which is developing innovative, inquiry-based high school curricula for government schools in India. Contributing to MIT's CITE (Comprehensive Initiative on Technology Evaluation) project, the Education Arcade has created a framework to evaluate the use of educational technologies in the developing world. It is collaborating with colleagues at the Indian Institute of Technology (Gandhinagar) in this effort.

Working with colleagues in the Scheller Teacher Education Program, the Education Arcade continued developing several tools that enable students to learn programming and system 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 UROP students, computer science master's students, and research assistants in the CMS/W master's program.

With funding from the Arthur Vining Davis Foundation, and in partnership with the Lynn, MA, public schools, the Education Arcade has explored the use of commercial video games in high school humanities curricula. It has begun work with the Smithsonian Institution on a new game promoting greater understanding of American history and engineering, focusing on the upcoming 150th and 50th anniversaries, respectively, of the transcontinental railroad (1869) and the first moon walk (1969). In addition, Sandbox Summit, a conference hosted annually by the Education Arcade, continues to create new avenues of dialogue between academics and developers of children's media, whether print, broadcast, software, or toys. This year's event drew 200 participants.

MIT Game Lab

As part of its mission to develop new approaches to applied game design and construction, the MIT Game Lab devoted its efforts this past year to providing tools and opportunities to develop games for diverse audiences.

The seven courses offered by the Game Lab, in conjunction with the lab's research and development opportunities, have maintained MIT's standing within the *Princeton Review*'s top 10 schools for undergraduate or graduate study of game development for a seventh year running.

With colleagues in the Scheller Teacher Education Program and Education Arcade, the MIT Game Lab has continued operating curricula for MITx on edX (11.126x Introduction to Game Design) and for a summer workshop on designing learning games for Chinese youth visiting US colleges. The summer workshop is supported by a private company, Excelorators.

In fall 2015, the MIT Game Lab co-hosted the Boston Festival of Indie Games for the fourth year. More than 3,000 people attended the event to see games developed by 300 invited developers and studios, giving students direct access to practitioners in game development. The event was covered in the national media, placing MIT and the MIT Game Lab as a center for independent game development.

New projects have begun at the Game Lab in collaboration with other laboratories and institutes. Continuing from previous work, Research Scientist Philip Tan has been working with the Charles Hayden Planetarium and the Museum of Science to develop games to be played in the planetarium. Richard Eberhardt, Sara Verrilli, and Caitlin Feeley have worked with the Samuel Tak Lee MIT Real Estate Entrepreneurship Lab to develop a game focusing on socially responsible real estate development for Chinese students.

HyperStudio

During AY2016, HyperStudio grew the worldwide user base of Annotation Studio, its online educational multimedia annotation project, to more than 7,500 educators and students. Annotation Studio has been integrated into more than 600 humanities curricula at universities, community colleges, and high schools. In addition, 23 educational institutions have set up their own site-specific installations of Annotation Studio, including Harvard University, Vassar College, Barnard College, Hofstra University, Humboldt University (Germany), Wellesley College, and Stony Brook University. The project (with Jim Paradis as principal investigator and Kurt Fendt as coprincipal investigator) was funded through two multiyear National Endowment for the Humanities Digital Humanities grants awarded in 2011 and 2013. Because the project is open source, other institutions have been able 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/ 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. Details on both projects have been presented during invited talks at

international conferences in Germany, Switzerland, and Poland as well as at numerous workshops and conferences in the United States.

Early Modern Theatre Practices & the Digital Archive: The Comédie-Française Registers Project (1680-1793), an international conference jointly organized by Harvard and MIT in May 2016, marked the completion of the Comédie-Française Registers Project, an eight-year collaboration among HyperStudio, MIT's History Department, Harvard University, and the Universities of Paris IV (Sorbonne) and Paris X (Nanterre). Scholars now have access to facsimiles and fully extracted data from 113 seasons of daily ticket receipt registers (1680–1793) for the French theater troupe Comédie-Française in Paris. A variety of scholarly research tools and interactive data visualizations enable scholars to research this important period before the French Revolution in unprecedented ways.

In September 2015, HyperStudio started a new collaboration with CMS/W professor Kenneth Manning to bring his Blacks in American Medicine project online. Based on more than 23,000 biographies of black doctors along with tens of thousands of personal and institutional documents and audio interviews, the project aims to tell the unique history of black medical professionals in America. With Blacks in American Medicine, HyperStudio hopes 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 weekly digital humanities email newsletter, *h+d insights*, has further solidified its role as one of the key information sources in the field, with more than 800 active subscribers. HyperStudio's Twitter account now has more than 2,000 followers.

Imagination, Computation, and Expression Laboratory

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

Building on the results of his National Science Foundation CAREER Award project "Computing for Advanced Identity Representation," which concluded in August 2015, Professor Harrell recently obtained more than \$1.35 million to advance his research on virtual identity. The National Science Foundation funds his work using avatars to help local middle and high school students from groups typically underrepresented in STEM (science, technology, engineering, and mathematics) fields see themselves as learners and doers of computer science; an MIT Computer Science and Artificial Intelligence Laboratory (CSAIL)/Qatar Computing Research Institute (QCRI) collaboration funds Harrell's 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 provides partial support for "The Enemy" project, which uses virtual reality technologies to help engender empathy in the face of global conflict (e.g., in Gaza, Congo, and El Salvador).

Outcomes of ICE Lab projects have taken the form of video games, interactive narratives, and social media systems that can adapt to the cultural needs of diverse users and help educate diverse learners. Examples include Mimesis, an online game that models the social and psychological impacts of a subtle form of racism, and MazeStar, an educational computer game creation platform used in workshops with Cambridge and Boston middle and high school students from underrepresented groups. MazeStar engages students in learning computer science concepts and seeing themselves as computer scientists. The ICE Lab has also developed an artificial intelligence tool called AIRvatar to analyze and reveal patterns in how people develop and use virtual identities. For example, the lab has used AIRvatar to empirically discover and demonstrate statistical patterns of racial and gender discrimination in video games.

To disseminate such results, ICE Lab publications have been presented at internationally recognized conferences such as those of the Association for Computing Machinery (ACM), the Association for the Advancement of Artificial Intelligence (AAAI), and the Institute of Electrical and Electronics Engineers (IEEE).

Mobile Experience Lab

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.

In February 2016, MEL held its second "Make Me++ Hackathon" followed by the Design Driven Innovation Conference. The hackathon, held in memory of Bill Mitchell, was sponsored by Puma with the theme of urban fitness. Nearly 100 hackers of various backgrounds assembled for a weekend to develop new and creative solutions in fitness. The Design Driven Innovation Conference, held for the second time, had more than 250 attendees and was an occasion to bring together entrepreneurs, creative thinkers, and designers from all around the world.

In partnership with the Italian company Eni (an MIT Energy Initiative member), the Mobile Experience Lab has continued its research in the field of 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. MEL has been able to develop smart vests, jackets, shoes, and gloves equipped with sensors and haptic feedback to prevent accidents in the workplace.

MEL has also explored collaborative design and emerging interactions in virtual environments, including the potential of immersive virtual environments in the context of collaborative spatial design. In order to understand how people communicate with each other and interact with immersive interfaces, the group designed and implemented a prototype that allows users to collaboratively design a layout via Oculus Rift, a virtual reality headset. Hand tracking, which allows people to use natural hand gestures to interact with interfaces, was employed in this project to identify key aspects of interactions within immersive virtual environments.

During the past academic year, the CMS.634/CMS.834/4.569 Designing Interactions class was divided into two groups. One group looked to create a new pedagogical paradigm for education that cuts across various disciplines and scales to demonstrate that design is not a discipline but, rather, a way of looking at the world that promotes the synthesis of interdisciplinary knowledge. By exploring the intersection of new/smart materials, biomechanics, user interfaces, and design processes, the students tried to propose new ways to innovate. The other group, addressing "smart city tourism," aimed to find different solutions to the issue of mass tourism in China. Their research focused on creating new mobile interfaces and new media to improve the touristic experience and provide a better way to access and contribute to cultural heritages.

Finally, the Mobile Experience Lab is working with MIT to redesign the MIT Welcome Center. The lab is responsible for designing a tangible map to provide personalized information to visitors so that they can better navigate the MIT campus and access Institute resources.

Open Documentary Lab

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 fellows 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 and four faculty affiliates (Vivek Bald, Sasha Costanza-Chock, Christine Walley, and Hanna Rose Shell). It is engaged in collaborations with the Sundance Institute, the Tribeca Film Institute, and the National Film Board of Canada and has attracted the interest of the MacArthur and Ford foundations.

In November, the lab released "Mapping the Intersection of Two Cultures: Interactive Documentary and Digital Journalism," its MacArthur-funded 100-page report. The report is the first to map the growing convergence of interactive documentaries and digital journalism in legacy news organizations. It included case studies of major news venues such as the *New York Times, The Guardian,* and PBS *Frontline* as they made use of interactive documentary techniques to better present their material digitally. The report was well received, and anecdotally ODL learned that many journalism teachers are using it in their classrooms.

In January, the lab received a three-year grant of \$750,000 from the John D. and Catherine T. MacArthur Foundation for general operational support.

In May the lab hosted a two-day conference, "Virtually There: Documentary Meets Virtual Reality," that brought leading international practitioners, scholars, and funders together to discuss the craft and ethics of virtual reality documentaries. The sold-out conference included panels, presentations, workshops, an exhibit, and a roundtable discussion among

invited guests. It brought the vanguard of nonfiction storytelling to MIT and became an important event in the field. ODL raised \$70,000 to pay for the conference.

The lab also negotiated a partnership with the online news agency Fusion and will consult for the group in the fall of 2016.

ODL continued to develop Docubase, a curated, interactive database focusing on the people, projects, and tools transforming documentaries in the digital age.

Emmy-award-winning documentary maker and former CAST visiting artist Katerina Cizek was hired to work with the lab on developing the co-creation incubator that will serve as ODL's production arm. Her work culminated in a curriculum, research, and a successful proposal to the MacArthur Foundation for a planning grant that will be executed in the fall.

Trope Tank

The Trope Tank, directed by Professor Nick Montfort, is a lab 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.

Literary translation projects continued to be central this year. One such project is Renderings, in which computational literary works from around the globe are being translated into English. To add to the 13 published pieces, work continued globally on the translation of about 25 pieces in Spanish, French, Japanese, Russian, Polish, Slovak, and Danish. The Trope Tank initiated a new project, Heftings, to allow online collaboration on and discussion of works that are usually considered impossible to translate. A prototype of the Heftings site was completed by the lab's graduate student researcher in collaboration with others in the lab. The Trope Tank also hosted a writer-in-residence for the first time as a way to reach beyond the existing MIT community.

A visiting student from Poland and a visiting postdoc from Finland developed an exhibit of materials from the lab, "Once More, with Feelies," that was presented at MIT's Rotch Library. Trope Tank researchers supplied work for three other exhibits at MIT and in the Boston area. A previous visiting postdoc from Poland presented work done at the lab at both the 2015 and the 2016 Digital Humanities conferences.

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.

The lab's equipment and researchers supported a display of Apple II work at the Boston area demoparty @party; Commodore 64 work and projections at the first New York City demoparty, Synchrony; Commodore 64 projections at the experimental dance music event "Beat Research" in Cambridge; and other events such as WordHack at Babycastles (New York City).

Professor Montfort's book *Exploratory Programming for the Arts and Humanities* (MIT Press 2016) was released after being developed in the Trope Tank with learners and researchers there, as well as during a semester-long class at the New School. Montfort gave workshops based on the book at the University of Wisconsin-Milwaukee, Rutgers University-Camden, the Babycastles gallery, and the School for Poetic Computation. Montfort also presented creative work that originated in or was partly developed thanks to the Trope Tank in several cities.

Academic Support Centers

Writing, Rhetoric, and Professional Communication

Writing, Rhetoric, and Professional Communication (WRAP), a teaching and research group within CMS/W, collaborates with other MIT faculty and departments 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 communications. It is led by Director Suzanne Lane and Associate Director Andreas Karatsolis.

WRAP guides MIT students from the essay exam they take online before entering as freshmen through their four required communication-intensive subjects and, in some cases, into their graduate education as WRAP also 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 has been collaborating with Dean Christine Ortiz to develop online communication instruction modules for graduate students. WRAP has received funding for AY2017 to provide communication instruction to graduate students in Course 16, which it will do through an integrated workshop model augmented by a series of online modules.

WRAP's affiliated research lab, ArchiMedia, investigates how digital media is shaping professional communication practices and how digital tools can be used (and designed) to teach professional communication. With the aid of both a d'Arbeloff grant and an Alumni Funds grant, WRAP/ArchiMedia developed the framework for a series of online modules on communication instruction in engineering that have been deployed and assessed in 3.014 Materials Laboratory and 10.26/27/29 Chemical/Energy/Biological Engineering Projects Laboratory. This project collaborates with engineering faculty to analyze disciplinary discourse and rhetorical conventions in common engineering genres such as journal articles, progress reports, slide presentations, and poster presentations. The modules teach students how to analyze published literature in their field and how to compose professional communications. This project has broken new ground in integrating technical and communication pedagogy. WRAP created "reasoning diagrams" that help students understand the underlying patterns of thought in engineering research and link these patterns to instruction on how to develop different genres and communicate those ideas to different audiences. This work was presented at the ProComm 2015 professional communication conference in Limerick, Ireland, and the 2016 conference of the American Society for Engineering Education in New Orleans. WRAP also developed extensive assessments for these modules using

an instrument that measures student growth in disciplinary understanding, rhetorical awareness, and habits of mind. On these measures, students showed significant increases in all areas, with a remarkable 125% increase in their understanding of disciplinary communication knowledge.

This past year, WRAP received a number of grants for further projects. After extending its methodology to fields beyond engineering and developing a reasoning diagram for Comparative Media Studies as well, it was awarded a three-year grant of \$240,000 from the Davis Family Foundation to create a half dozen more reasoning diagrams in STEM fields. WRAP also received a three-year grant of \$69,520 from the National Science Foundation for a multi-institutional project assessing the effects of incorporating peer reviews into undergraduate STEM subjects. In addition, with the aid of an Alumni Funds grant, ArchiMedia is developing Metalogon, an online tool for rhetorically analyzing speeches and oral presentations. This platform will be used in 3.014 and 21W.016 in fall 2016.

The Writing and Communication Center

The Writing and Communication Center offers free professional advice to MIT undergraduate students, graduate students, and postdocs. WCC is staffed completely by communication experts—all are MIT lecturers, published writers, experienced college classroom teachers, and have worked at MIT for many years. WCC lecturers know the expectations and genres of all of the fields taught here.

During AY2016, 1,008 unique clients (1,139 in AY2015) consulted WCC 2,691 times (3,019 in AY2015). The table below shows client and visit percentages for AY2015 and AY2016.

Percentages of Clients and Visits by Client Type, AY2015 and 2016

	Unique clients		Client visits	
	AY2015	AY2016	AY2015	AY2016
Undergraduate students	29%	30%	18%	20%
Graduate students	49%	54%	62%	60%
Postdocs	22%	13%	18%	18%
Faculty	0%	<1%	0%	<1%
Visiting scientists, spouses, special students	2%	3%	2%	2%
All English-as-a-second- language clients	68%	70%	78%	82%

The usage rate was 82% during AY2016 (85% in AY2015). WCC's continuing high usage rate (experts consider 50% good) is a testament to the superior service offered by the center's lecturers.

Additional Services

- Throughout the year, Director Steven Strang ran biweekly meetings of the MIT Writers Group, with 4–10 people attending each session, including undergraduate students, graduate students, staff members, and lecturers (not included in the statistics above).
- Since the 2010 Independent Activities Period (IAP), WCC has taught 21W.794 Graduate Technical Writing Workshop, a three-credit course for students who failed the scientific and engineering writing skills test. For the seventh straight year, Pamela Siska taught all sections of this course, with advice from and supervision by the center's director (not included in the statistics above).
- During IAP 2016, Lecturer Rebecca Thorndike-Breeze taught a one-week course, Make Your Own Comic, and co-created and taught a course with the MIT Libraries on creative ways to use Wikipedia.
- Also during IAP 2016, the center again sponsored a workshop given by Lecturer Thalia Rubio on "How to Write an Effective Abstract."
- During the spring term, WCC taught 21W.799 Independent Study in Writing, a
 three-credit graduate course for students unable to take 21W.794. The course was
 taught by Pam Siska as a tutorial and had 11 students (as compared with two
 in AY2015). The center's director designed the course and provided advice and
 supervision.
- During AY2016, Steve Strang gave talks to various departments about ways in which the center can be used.

Survey Results

The center uses the same seven-point Likert scale used for regular course evaluations to evaluate itself. The key statement is "This session was very helpful" (see table below), and respondents can circle any number from 1 (strongly disagree) to 7 ("strongly agree").

WCC's staff members distinguished themselves with impressive results. Anonymous survey forms filled out after each consultation (and deposited in a locked box) revealed that WCC lecturers earned a 6.69 (out of a possible 7) rating from clients. This result is very much in keeping with last year's (6.73). These consistently high ratings are evidence that WCC is employing best practices in writing center instruction.

Writing and Communication Center Anonymous Survey Results, AY2016

Statement	7	6	5	4
This session was very helpful	78% (-5)	17% (+4)	5% (+2)	0%
I learned something new about writing or oral presentation	77% (-2)	16% (+2)	5% (+1)	2%
Because of this session, I can handle a similar writing/ speaking situation better next time	78% (-1)	15%	6% (+1%)	1%

Note: 7 = agree strongly, 1 = disagree strongly. Numbers in parentheses are percentage point differences (if any) relative to AY2015.

Faculty Award and Publication Summary

Vivek Bald

Vivek Bald's *Bengali Harlem and the Lost Histories of South Asian America* (Harvard University Press, 2013) went into paperback in 2015 after garnering wide media attention (from CNN, the *New York Times*, the *New York Daily News*, and the *Bangladesh Daily Star*, among others) and best book awards from two scholarly associations, the Association for Asian American Studies and the Immigration and Ethnic History Society. The book has also become part of ongoing national conversations—on social media and within South Asian and African American communities—about the past and present of cross-racial alliances. Bald is currently working on a documentary film and web-based public digital archive that will extend the research, audience, and pedagogical possibilities of *Bengali Harlem*. Also, he is working on his second book, which focuses on American fantasies of India in US media, advertising, and popular culture at the turn of the 20th century.

Marcia Bartusiak

Publications

Black Hole: How an Idea Abandoned by Newtonians, Hated by Einstein, and Gambled on by Hawking Became Loved (Yale University Press)

"The Long Road to Detecting Gravity Waves," Science News, March 5, 2016

"How to Catch a Gravity Wave," Science News for Students, February 11, 2016

"The Cosmic Poltergeist," Natural History, February 2016

"Nor Any Drop to Drink," Natural History, October 2015

"The Only Woman in the Room," Washington Post, September 27, 2015

"The Upright Thinkers," Washington Post, July 5, 2015

Lectures

"Schwarzschild Solution: A Historical Perspective," annual meeting of the American Physical Society, Salt Lake City, UT, April 2016

Liberal Arts Distinguished Lecture, Quinsigamond Community College, Worcester, MA, April 2016

Northeast Astronomy Forum, Suffern, NY, April 2016

Virginia Festival of the Book, Charlottesville, VA, March 2016

Decatur Book Festival, Decatur, GA, September 2015

Awards

Black Hole won or was in line for several awards, as follows:

American Publishers Prose Award, Cosmology & Astronomy category, honorable mention

Long-listed for PEN/E. O. Wilson Literary Science Writing Award

Science Books & Film Best Book of 2015

American Library Association Outstanding Academic Title

Federico Casalegno

Lectures and Keynotes

"Achievements in Wearable Technologies," "Eni-MIT Alliance Working Together Toward Energy Transition" conference, San Donato Milanese, Italy, June 2016

Lecture at ReDesign Design Education Conference, Wuxi, China, May 2016

Keynote at "Design Driven Innovation and Its New Frontiers" conference, MIT, February 2016

Lecture at "EmTech France," Toulouse, France, December 2015

"Scenari di Innovazione" (keynote) at "Make/Florence: Inspire/Ideate/Invent" conference, Florence, Italy, November 2015

"Disruptive Innovation," LG Electronic B2B workshop presentation, Seoul, South Korea, November 2015

Lecture at "UrbanTec Brazil—Smart Solutions for Better Cities," Rio de Janeiro, October 2015

"Inventing Tomorrow's Cities," organized by "La Fabrique de la Cité," Berlin, Germany, July 2015

Publications

"Observations on Global Urban Millennials' Social and Civic Interactions Mediated by New Technologies" (with Suruchi Dumpawar, Vicky Zeamer, Anika Gupta, and Blanca Abramek), Human-Computer Interaction International Conference, February 2016

"Hermes: Hands-Free Authentication in Physical Spaces" (with Kulpreet Chilana), Human-Computer Interaction International Conference, January 2016

"Ask Local: Explore a New Place Like Locals" (with Cagri Hakan Zaman, Meng Sun, and Kulpreet Chilana), Human-Computer Interaction International Conference, August 2015

Sasha Costanza-Chock

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 grounded in real-world needs. The Codesign Studio partners with community-based organizations and uses co-design and lean start-up 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 2016, the studio's partners were worker-owned cooperative businesses in the Boston area, including the Vida Verde home cleaning co-op, Restoring Roots green gardeners, and CERO, a waste collection co-op. The partnerships were funded by a \$25,000 Microsoft FUSE Labs Peer Economy Research Award to Principal Investigator Costanza-Chock for the proposal "Think Outside the Boss: Towards Co-Design of Worker-Owned Platforms in the 'Sharing Economy."

Publications

"Media in Action: A Field Scan of Media & Youth Organizing in the United States" (with Chris Schweidler, Teresa Basilio, Meghan McDermott, Puck Lo, and Mara Ortenburger), *Journal of Digital & Media Literacy*, June 2016

"PageOneX: New Approaches to Newspaper Front Page Analysis" (with Pablo Rey Mazón), *International Journal of Communication*, April 2016

"Towards Transformative Media Organizing: LGBTQ and Two-Spirit Media Work in the United States" (with Chris Schweidler), *Media, Culture, & Society* (accepted for publication)

Awards

Costanza-Chock was named Mitsui Career Development Professor for a three-year term beginning July 1, 2016. Also, her position as faculty affiliate at the Berkman Center for Internet and Society at Harvard University was renewed.

Junot Díaz

Professor Díaz was selected by MIT's School of Humanities, Arts, and Social Sciences (SHASS) to receive a 2016 Levitan Teaching Award. Also, he was elected to the advisory board of the Library of America and served on the board for the Pulitzer Prize.

Selected Publications

"The North Remembers: A Hokkaido Journey," Travel + Leisure, December 2015

"Stories from the Road," New York Times, July 22, 2015

"The Terror," New York Times, June 28, 2015

Fox Harrell

Seminars and Colloquia

"Looking Ahead: The Virtual Documentary" (invited panel with Nonny de la Peña, Marcos Novak, and Robert Overweg), "Virtually There: Documentary Meets Virtual Reality," Cambridge, MA, May 2016

"The Enemy Project: Using Virtual Reality for Conflict Journalism and Engendering Empathy" (invited talk with Karim Ben Khelifa), "Virtually There: Documentary Meets Virtual Reality," Cambridge, MA, May 2016

"Advanced Identity Representation in Videogames, Social Media, and Virtual Reality" (invited talk), Institute for Public Knowledge, New York University, New York City, NY, May 2016

"Reflections on Advanced Identity Representation," MIT CMS colloquium, April 2016

"MIT Imagination, Computation, and Expression Laboratory Approaches to Digital Storytelling" (invited workshop with Chong-U Lim), University of Pittsburgh, PA, April 2016

"Interactive Narrative for Cultural Expression and Critique" (invited talk), University of Pittsburgh, April 2016

"Phantasms of Social Identity: Computational Approaches to Understanding Virtual Selves" (invited plenary talk), "What Is Media?" Conference, University of Oregon, Portland, OR, April 2016

"Rhetoric and Pragmatics of Social Critique in Computational Media" (invited talk), Notre Dame Institute for Advanced Study, April 2016

"The AIRvatar-Q Project: Toward Design Principles for Culturally Situated Virtual Identity Systems" (with Sarah Vieweg), QCRI/CSAIL annual meeting, Doha, Qatar, March 2016

"Virtual Reality @ MIT: Conversation with Karim Ben Khelifa and Fox Harrell" (invited talk with Karim Ben Khelifa), Arts at MIT and MIT Martin Trust Center for Entrepreneurship, February 2016

"Virtual Identities for Empowerment" (presentation and panel with Kade Crockford, Paul Heroux, and Nandini Merz), Tufts University, January 2016

"Modeling and Expressing Social Identity in Games" (panel with Anna Everett, Jennifer Jenson, and Soraya Murray), International Symposium on Electronic Art, Sydney, Australia, August 2015

Publications

"Subjective Computing and Improvisation," in *Oxford Handbook of Critical Improvisation Studies* (Oxford University Press)

"Provoking Imagination and Emotion with a Lively Mobile Phone: A User Experience Study" (with Kenny K.N. Chow, Ka Yan Wong, and Aditya Kedia), Interacting with Computers, June 2015

Conference Proceedings

"Exploring the Effect of Avatar Apparitions on Performance and Engagement in Educational Games" (with Dominic Kao), *Proceedings of the International Society of the Learning Sciences Conference* (Singapore, June 2016)

"Exploring the Effects of Encouragement in Educational Games" (with Dominic Kao), *Proceedings of the ACM Computer-Human Interaction Conference* (San Jose, CA, May 2016)

"Exploring the Impact of Avatar Color on Game Experience in Educational Games" (with Dominic Kao), *Proceedings of the ACM* Computer-Human Interaction Conference, (San Jose, CA, May 2016)

"Towards an Understanding of Role Model Avatars and Their Impacts in Educational Games" (with Dominic Kao), *Proceedings of the American Educational Research Association Conference* (Washington, DC, April 2016)

"A Data-driven Approach for Computationally Modeling Avatar Customization Behavioral Patterns of Players" (with Chong-U Lim), *Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment* (Santa Cruz, CA, November 2015)

"Exploring the Use of Role Model Avatars in Educational Games" (with Dominic Kao), *Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment* (Santa Cruz, CA, November 2015)

"A Cognitive and Interpretive Approach to Imaginative and Affective User Experiences: Two Empirical Studies of Lively Interactive Artifacts" (with Kenny K.N. Chow, Aditya Kedia, and Ka Yan Wong), *Proceedings of the International Association of Societies of Design Research Conference* (November 2015)

"Toward Avatar Models to Enhance Performance and Engagement in Educational Games" (with Dominic Kao), *Proceedings of the IEEE Conference on Computational Intelligence and Games* (Tainan, Taiwan, August–September 2015)

"Understanding Players' Identities and Behavioral Archetypes from Avatar Customization Data" (with Chong-U Lim), *Proceedings of the IEEE Conference on Computational Intelligence and Games* (Tainan, Taiwan, August–September 2015)

Inventions

An Approach to Modeling Social Identity Using Dynamic Group Membership for Use in Digital Media Such as Videogames and Social Media (Application No. 14/677,378, patent pending)

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Grant Proposals

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

QCRI-CSAIL Alliance Grant, "Understanding and Developing for Cultural Identities Across Platforms: Value-Driven Design Principles and Best Practices in a Qatari Context" (2015–2018, \$750,000)

CAST Visiting Artist Grant to host Karim Ben-Khelifa (2015, \$30,000)

National Science Foundation CAREER Award, "Computing for Advanced Identity Representation" (2010–2015, \$535,062)

Juried Exhibitions and Performances

Collaborator on "The Enemy," an award-winning virtual reality project opposing war (director: Karim Ben Khelifa, visiting artist at the MIT Open Documentary Lab)

Heather Hendershot

Professor Hendershot devoted much of her time this year to completing her book *Open to Debate: How William F. Buckley Put Liberal America on the Firing Line.* She was awarded funding for both pre-production (e.g., photo research) and post-production (indexing, photo rights/clearance) costs by the SHASS dean's office. She presented her research on Nixon and *Firing Line* at the conferences of the Society for Cinema and Media Studies and the Organization of American Historians. For the second consecutive year, she served on the board of jurors for the Peabody Awards. She was also invited with a group of scholars to visit the Peabody archives and spend several days viewing rare materials in preparation for a longer-term project in which scholars will contribute to a book centered on Peabody materials. In addition, Hendershot evaluated applications from film and media studies scholars that were submitted for consideration for fellowships at the Radcliffe Institute for Advanced Study.

Tom Levenson

Awards

John Simon Guggenheim Jr. Fellowship Levitan Prize in the Humanities

Publications

The Hunt for Vulcan...and How Albert Einstein Destroyed a Planet, Discovered Relativity, and Deciphered the Universe (Random House; Chinese and Japanese editions forthcoming)

"Astronomers Have Found Planets in the Habitable Zone of a Nearby Star," TheAtlantic.com, May 2, 2016

"Doubting Climate Change Is Not Enough," Boston Globe, April 17, 2016

"A New Planet or a Red Herring?" The Atlantic.com, January 25, 2016

"What Chief Justice Roberts Misunderstands About Physics," The Atlantic.com, December 23, 2015

"Drugs, Fleas, Race and Disease," Boston Globe, December 13, 2015

"Einstein's Brainstorm: Science's Biggest Idea Turns 100," *Boston Globe*, October 25, 2015

"Sexism in Science Leads to Willful Blindness," Boston Globe, August 30, 2015

"Pluto's Misbehaving Moons," Boston Globe, July 9, 2015

Alan Lightman

Publications

"The Ache for Order, the Virtue of Chance," Undark, February 22, 2016

"Faith in Science," Tin House, Spring 2016

"The Nature of Things: Why I Love Physics," *Princeton Alumni Weekly*, March 2, 2016

"The Detection of Gravitational Waves and Patience" (op-ed), *Washington Post*, February 19, 2016

"What Came Before the Big Bang?" Harper's Magazine, January 2016

"Splitting the Moon," Guernica, September 15, 2015

"The Ghost House of My Childhood," New York Times Sunday Review, August 23, 2015

"Harpswell Foundation Enables Education for Women in Cambodia," *New Global Citizen*, August 4, 2015

Awards

St. Botolph Club Foundation 2016 Distinguished Artist Award

Seth Mnookin

Professor Mnookin became director of the Communications Forum and the faculty chair of the de Florez Fund for Humor.

Honors and Awards

Professor Mnookin was awarded (but declined in order to direct the Graduate Program in Science Writing) a 2016 Nieman Foundation for Journalism Fellowship at Harvard University. In addition, he received the 2015 American Medical Writers Association Eric W. Martin Award for Excellence in Medical Writing and was selected for the 2015 Best American Science and Nature Writing anthology. Mnookin also was named the Ford Career Development Chair in Comparative Media Studies/Writing.

Publications

"Trust and Confidence in Vaccines: Tales of Three Vaccines, Lessons for Others" (with Heidi J. Larson), in *The Vaccine Book* (second edition; Elsevier Academic Press)

"'You Are a Coward': Hate and Misperceptions About Substance Abuse Are Broader Than I Thought," *STAT*, June 23, 2016

"I'm an Ex-Addict. Why Was It Easy to Get Prescription Opioids?" *Boston Globe* and *STAT*, June 9, 2016

"Out of the Shadows: Making Mental Health a Global Development Priority" (World Bank Group and World Health Organization), spring meetings of the International Monetary Fund and the World Bank Group, Washington, DC, April 2016

Talks and Lectures

Professor Mnookin gave, moderated, or was a panel member for 20 public lectures or discussions, including the keynote address at the annual meeting of the American Epidemiological Society (March 2016), a talk as part of the Johns Hopkins "Telling Stories about Science" series (February 2016), a keynote panel at the National Association of Biology Teachers conference (November 2015), the keynote address at the Texas Immunization Conference (November 2015), the inaugural address of a new public speaking series at the Ohio State University Nationwide Children's Hospital (October 2015), and an invited presentation to the Presidential Commission for the Study of Bioethical Issues (September 2015).

Nick Montfort

Professor Montfort's book *Exploratory Programming for the Arts and Humanities* was published by the MIT Press in 2016. He had five book chapters published and spoke at several conferences, including South by Southwest. He presented his computational poetry in Los Angeles, Philadelphia, Vienna, Bratislava, Graz, London, New York, and Montreal, among other cities.

The third volume of *The Electronic Literature Collection*, the major anthology of creative work the field of digital literature, was released. It featured Montfort and Stephanie Strickland's "Sea and Spar Between" along with three collections. One was a group of works that are remixes of Montfort's "Taroko Gorge;" another was the work of Montfort's Renderings project.

In January Montfort organized the first demo party in New York City, Synchrony. The event connected a vibrant subculture of creative computing to this major US city. Montfort brought with him a group of presenters who were almost certainly the most diverse at any such event.

James Paradis

Professor Paradis and Kurt Fendt published the report *Digital Annotation as an Educational Approach in the Humanities and Arts*.

Edward Schiappa

Publications

Jebb's Isocrates (edited by Professor Schiappa, David M. Timmerman, and Giles Laurén; Sophron)

"Twenty-five Years After 'Did Plato Coin Rhêtorikê?': An Episodic Memoir," *Rhetoric Review*, 2016

"What Hath Greene Wrought?: Revisiting 'Another Materialist Rhetoric," Communication and Critical/Cultural Studies, 2015

Awards

Endowed chair: John E. Burchard Professor of Humanities, MIT

Lectures and Conference Presentations

"Data Visualization as Rhetorical" (keynote address), Boston Rhetoric and Writing Network conference, May 2016

"2015 as America's Transgender Moment: The Role of Media Representation," Colorado State University, March 2016

"Rhetoric@MIT: What's Up with That?" Colorado State University, March 2016

"In What Ways Shall We Say Mathematics Is Rhetorical?" (invited talk), Carnegie Mellon University, January 2016

"Professional Development & Your Doctoral Education" (meeting with graduate students), Carnegie Mellon University, January 2016

"Recovering the Rhetoric of Mathematics," Agora Speaker Series, University of Pittsburgh, January 2016

"Visual Persuasion in the Digital Age," University Honors College, University of Pittsburgh, January 2016

T.L. Taylor

Professor Taylor helped launch and serves as the director of research for the AnyKey initiative, which supports diversity in competitive digital gaming, also known as "esports." AnyKey has provided funding for a CMS graduate student for two years and, under Taylor's leadership, is sponsoring a variety of workshops and research to address programmatic changes within this sector of computer gaming.

As part of her involvement in a Social Sciences and Humanities Research Council of Canada partnership grant awarded to York University, Taylor was given funding to help support her continued work on diversity in competitive digital gaming, as well as funding for a CMS graduate student who will assist with this work.

Taylor continues to appear in a variety of popular press outlets and venues (e.g., the *New York Times*, German National Radio) speaking on the subjects of gaming, competitive

digital gaming, and live streaming. Also, she was a keynote speaker and panelist at The Coalition, India's prime conference for new media innovation.

William Uricchio

Conferences

"Virtually There: Documentary Meets Virtual Reality" (organized by the MIT Open Documentary Lab), MIT, May 2016

Publications

Many More Lives of the Batman (edited by Professor Uricchio, Roberta Pearson, and Will Brooker; British Film Institute/Palgrave McMillan)

"Interactivity and the Modalities of Textual Hacking: From the Bible to Algorithmically Generated Stories," in *The Politics of Ephemeral Digital Media: Permanence and Obsolescence in Paratexts* Routledge)

"Selling the Motion Picture in fin-de-siecle America," in *Selling to the Senses* (Palgrave Macmillan, forthcoming)

"Replacement, Displacement and the Cultures of Obsolescence," in *Cultures of Obsolescence: History, Materiality, and the Digital Age* (Palgrave Macmillan)

"Contextualizing the Apparatus: Film in the Turn-of-the-Century Sears, Roebuck & Co. Consumers Guide's Department of Special Public Entertainment Outfits and Supplies," in *Exposing the Film Apparatus: The Film Archive as a Research Laboratory* (University of Amsterdam Press)

"Re-Thinking the Social Documentary," in *The Playful Citizen: Power, Creativity, Knowledge* (University of Amsterdam Press, forthcoming)

"Media Specificity and Its Discontents: A Televisual Provocation," in *From Media to Post-Media: Continuities and Ruptures* (Éditions L'Âge d'Homme, forthcoming)

Talks

"Platforms, Technology and Cultural Form" (keynote), "The Digital Challenge: Developing Sustainable Business Models for the Creative, Cultural and Heritage Sectors," Castle Donington, England, June 2016

"In Search of Colin Ross," Ludwig Boltzmann Institut für Geschichte und Gesellschaft, Vienna, June 2016

"Virtual Reality: Two Technologies, Two Referents, Two Sets of Implications," Utrecht University, Utrecht, the Netherlands, June 2016

"Interaction, Immersion and the Implications of User-Enacted Experiences," Central European University, Budapest, May 2016

"Digital Journalism: Transmission, Ritual, and the Re-Imagined Civic," Center for Media, Data and Society, Central European University, Budapest, May 2016

Keynote at "Virtually There: Documentary Meets Virtual Reality," Cambridge, MA, May 2016

"Interactive Documentary and Legacy Media," iDocs, Bristol, England, March 2016

"Media, Metropolis, Mind: Wandering Through 150 Years of Urban Documentation" (keynote), "DOKU.ARTS: Architectures in Motion," Deutsches Historisches Museum, Berlin, September 2015

Grants

John T. and Catherine D. MacArthur Foundation, Ford Foundation, Wyncote Foundation, and Phi Center grants (all related to the work of the MIT Open Documentary Lab)

Jing Wang

Awards

Council of Editors of Learned Journals Award for Best Special Issue (for a special issue of *Positions: Asia Cultures Critique* co-edited by Professor Wang and Winnie Wong)

MIT Levitan Prize

Radcliffe Institute for Advanced Study Fellowship

Seminars and Colloquia

"Activists as Makers: NGO2.0 and Tech4Good," Oxford University, December 2015

"The Internet and Philanthropy: New Trends of Tech4Good in the USA and Europe," Shenzhen Philanthropy Convention, Shenzhen, China, September 2015

"What Does 'Internet Plus' Mean to the Nonprofit Sector?" Tencent Foundation, Shenzhen, China, August 2015

"Branding and Marketing in the Age of Social Media," Web 2.0 workshop, Shenzhen, China, August 2015

Edward Schiappa

Head, Comparative Media Studies/Writing