Comparative Media Studies

Established as a graduate program in AY2000 and as an undergraduate major in AY2008, Comparative Media Studies (CMS) infuses the study of contemporary media (including film, television, and digital systems) with both a broad historical understanding of older forms of human expression and an awareness of the constant interplay of emerging technology and new media. The program embraces theoretical and interpretive principles drawn from the humanities and social sciences, and from particular disciplines such as literary study, history, art history, anthropology, sociology, and film studies, and aims for a comparative synthesis responsive to the emerging media culture of the 21st century. Students in the program are taught to explore the complexity of our media environment by thinking across media forms and across cultural and historical settings, deploying comparative methodologies in order to see beyond boundaries imposed by older medium-specific approaches to the study of audiovisual forms.

The comparative and cross-disciplinary nature of both the graduate and undergraduate programs is embodied in a faculty drawn from the Anthropology; Foreign Languages and Literatures; History; Architecture and Art; Literature; Music and Theater Arts; Philosophy; Writing and Humanistic Studies; Science, Technology, and Society; Media Arts and Sciences; Political Science; and Urban Studies and Planning programs. Approximately 25 faculty members teach subjects in CMS.

The graduate program consists of a two-year course of study leading to a master of science degree. The program aims to prepare students for careers in fields such as journalism, teaching and research, government and public service, museum work, information science, corporate consulting, media industry marketing and management, and educational technology. Recent graduates are working in fields such as higher education, teaching, journalism, and photojournalism, and at media and technology consulting firms, media production companies, and software firms. The undergraduate program, formally approved by the Institute's faculty as an interdisciplinary major in 2008, mirrors the graduate program in concept and ambition and has been experiencing steady growth since its inception. As in the past, CMS has an impressive roster of funded research projects and outreach activities.

The program is regrouping from a turning point reached in 2009, when, despite great academic achievement and significant funded research operations, CMS was still unable to grow beyond its initial two faculty members; nor was it able to achieve sectional status. As a result, it lost professor Henry Jenkins, founder and one of the program's two directors/faculty members. Graduate admissions were frozen for AY2010 and AY2011 and reopened for AY2012, while the undergraduate program continued unaffected. A reorganization process was initiated by dean Deborah Fitzgerald, resulting in interested faculty with media expertise from Foreign Languages and Literatures and the Program in Writing and Humanistic Studies (most of whom were already affiliated with CMS) joining together and drafting a vision of CMS as an autonomous section. That work is ongoing.

Governance

Following the 2009 departure of Professor Jenkins, professor William Uricchio (Literature, Foreign Languages and Literatures) remains as director. James Paradis, Robert M. Metcalfe professor of writing and humanistic studies, was interim director for AY2011 and will continue as joint director in AY2012. Associate professor Ian Condry (Foreign Languages and Literatures) was named associate director in fall 2009, but was on leave during fall 2010. The program is under the auspices of three humanities programs: Literature, the Program in Writing and Humanistic Studies, and Foreign Languages and Literatures. Administratively, CMS is housed in Literature. An administrative management team comprising affiliated faculty and administrators also guides CMS.

Graduate Program

The CMS graduate program was on hiatus during AY2011. However, after a two-year break, CMS reopened admissions, and interest in the program is stronger than ever. One hundred twenty-eight applications were received (the highest number in CMS history) and ultimately 11 students were accepted into the master of science program for AY2012. Of this group, six are women and two are international students.

In past years, graduates of the CMS master's program have worked at companies including Lucasfilm, Microsoft, Home Box Office, Midway Studios, Razorfish, Etsy, Deloitte Consulting, Nickelodeon, Public Broadcasting Service, National Public Radio, WHERE (a leading location media company), and Greenovate, in positions such as creative strategist, game designer, television producer, documentary filmmaker, and project manager. Others have gone on to PhD programs at schools including Duke University; the University of Southern California; Columbia University; the University of California, Irvine; the University of California, Los Angeles; and the University of Wisconsin–Madison; as well as MIT's Program in Science, Technology, and Society. Graduates are now in faculty positions at Simon Fraser University, the University of Michigan, and the University of Illinois at Urbana–Champaign. For more information on the CMS graduate program, see http://cms.mit.edu/academics/graduate_program.php.

Undergraduate Program

In its third academic year as a permanent major, 25 students were enrolled as majors in the CMS undergraduate program, including one student with CMS as the humanities component of the 21E major. Of this group, nine were women and approximately 10 were minority students. Two CMS majors pursued a double degree, and four a double major. Two students graduated in February 2011 and seven in June 2011, which brings the total number of students who have graduated from the CMS undergraduate program, from its inception as an experimental major in 2003 through 2011, to 62. As of June 2011, CMS had six minors and 50 concentrators. Undergraduate involvement in CMS research continues to be strong. During AY2011, CMS sponsored 78 Undergraduate Research Opportunities Program (UROP) positions for pay or credit, and another 15 students will participate in summer UROPs.

CMS graduates have gone on to careers in global digital commerce, video game

production, marketing, research, graphics, and social networking software design at companies including Nike, Electronic Arts, MTV, Microsoft, Google, Pipeworks Software, and the Congressional Quarterly; others have pursued studies in theater arts, fine arts, or law. Many others have gone on to leading graduate programs in the United States (US) and abroad. For further information about the CMS undergraduate program, see http://cms.mit.edu/academics/undergrad_program.php/.

This academic year, a group of students, led by a major and a minor from the CMS undergraduate program, formed a group called Film Troupe. The group is dedicated to promoting student film and video production by bringing students with different skill sets together to work on projects, and by hosting weekly conversations with members of the MIT community with film/video expertise. The group applied for and received official MIT student group status, and was awarded a \$2,500 Council for the Arts grant for equipment. It plans to have video submissions ready for next year's CMS Media Spectacle, a showcase of videos from the MIT community.

Visiting Scholars

CMS's visiting scholars program attracts scholars from around the world who span multiple disciplines and who provide a rich exchange for CMS faculty, students, and staff. In AY2011, visiting scholars included professor Richard Rogers (University of Amsterdam) in the area of digital humanities, and lecturer Anamik Saha (Birkbeck College, University of London) in the area of South Asian diasporic cultural production. MIT's Mobile Experience Lab (MEL) also appointed Pierre Le Quéau (Grenoble University) in the area of narration and the imaginary, Carla Farina (formerly of the University of Rome) in industrial design, and Pascal Chesnais (formerly of Orange Labs, Boston) in mobile technologies.

Many of CMS's visiting students in AY2011 interned at MEL. They include Laurène Barlet (France), Anthony Przyswa (France), Adrià Recasens (Spain), Aurélien Quenot (France), and Pelin Arslan (Turkey). CMS has also hosted two visiting students, Michael Kui Zhou (China) and Rachel Ji Rong Hu (China), in partnership with Foreign Languages and Literatures.

CMS visiting faculty this year included visiting associate professor of media studies Mia Consalvo and CMS alumna and lecturer Flourish Klink SM '10, both from the US. Hired through the Program in Writing and Humanistic Studies, Professor Consalvo taught courses for CMS and conducted research in the Singapore-MIT GAMBIT Game Lab. Lecturer Klink cotaught CMS's Introduction to Media Studies and a writing course on social media, as well as a course on fan studies.

As CMS prepares for its first incoming graduate class since 2008, its visiting scholars and students programs will be ramping up as well; at least eight new visiting scholars and three new visiting students are expected to arrive in time for fall semester 2011.

Postdoctoral Program

The CMS postdoctoral program recruits younger scholars and media makers to support both teaching and research activities. In the area of game studies, continuing

appointments were awarded to Konstantin Mitgutsch (Austria) and Clara Fernández-Vara (Spain), and a new appointment was awarded to Todd Harper (US). In the area of mobile technologies, postdoctoral fellow Liselott Brunnberg (Sweden) transferred to CMS as part of MEL, as did postdoctoral associate Sotirios Kotsopoulos (US), who is part of MEL's Green Home Alliance, a project to create a sustainable, networked home. In the area of interaction design, postdoctoral associate Leonardo Giusti (Italy) was awarded an appointment to work on MEL research; his appointment will begin in September.

Research Projects

CMS research themes cross academic disciplines and involve both traditional and emerging media, establishing a focus for public presentations, research agendas, and curricular initiatives. These projects enable CMS to work on the forefront of media development, and are central to the program's notion of a hands-on pedagogy in which students work both in the classroom and in the field, testing the limits of theory and the impact of their ideas in an iterative process.

The primary research themes are:

- creativity and collaboration in the digital age
- media in transition
- transforming humanities education
- childhood and adolescence in a hypermediated society
- global culture and media
- informed citizenship and the culture of democracy.

These research themes infuse CMS's academic program, help to shape its outreach activities, and attest to its commitment to bridging disciplines within the Institute and between the Institute and the world. The themes find tangible form in the funded research projects described below.

Singapore-MIT GAMBIT Game Lab

The Singapore-MIT GAMBIT Game Lab experiments with the theory, aesthetics, culture, craft, legacy, technology, and play of games, while developing, sharing, and deploying prototypes, findings, and best practices to challenge and shape global game research and the industry. Sister laboratories in Cambridge and Singapore actively work together by encouraging international research collaborations and sharing research and development concepts, as well as coordinating and operating the annual summer internship program. Both Singapore- and Boston-area students work together on highly visible games based on ongoing research projects.

The Cambridge lab maintains thought leadership within the program through research and rapid prototyping. Its close ties with other research groups within MIT and access to senior-level games industry talent allow the lab to serve as a central hub for research collaborations with MIT and other institutions. It also builds, distributes, and tests prototypes to assess the validity of innovations and to refine theoretical frameworks,

and conducts industry outreach to grow and share its knowledge base. Since GAMBIT's inception, researchers sponsored by the initiative have published and presented 87 papers in top-tier journals and conferences. Based on GAMBIT's operations and curriculum, MIT received an honorable mention in 2011 from *Princeton Review* and *GamePro Magazine* as a top graduate school for video game design study, as a result of a survey of 150 schools across the US and Canada.

Singapore and US students have worked together in GAMBIT's annual summer program to develop research into cutting-edge games. More than 15 games have been recognized for awards in international showcases and competitions, such as the Independent Games Festival (IGF) and IGF Mobile, the International Festival of Independent Games, The PAX 10, Best of Casual Gameplay, and the Mochi Flash Game Awards. Games developed in 2010 won the Best Student Game and Best Overall Game (*Yet One Word*) and Most Meaningful Game (*Elude*) awards at the Meaningful Play Conference 2010, held at Michigan State University. *Afterland* was nominated as a finalist at IGF China (student category). *Symon* won the award for Best Browser Game at the Indie Game Challenge, in Las Vegas, and will soon be published on Kongregrate, a major online game portal.

These projects and others—including research on new animation tools and applications of artificial intelligence, digital games for the blind, emotion and metaphor in games, cultural differences in aesthetics, and games for learning—have led GAMBIT to be featured in *The New York Times, The Wall Street Journal, MIT's Technology Review, USA Today, The Chronicle of Higher Education, The Boston Globe, Wired, bOING bOING, The Onion, EDGE Magazine, Gamasutra,* and Kotaku, and on the Discovery Channel, National Public Radio, MTV, and CNN. GAMBIT's researchers, developers, and students have presented their work at Special Interest Group on GRAPHics and Interactive Techniques, Digital Games Research Association, the Game Developers Conference, FuturePlay, Media in Transition, the Association for Computing Machinery's (ACM) Conference on Computer Supported Cooperative Work, and the Foundations of Digital Games conference. They have contributed essays to such peer-reviewed publications as ACM *Transactions on Graphics; Computer Graphics Forum; Symposium on Computer Animation; Journal of Communication, Games and Culture; New Media & Society; Eludamos: Journal for Computer Game Culture;* and *Journal of Transformative Works and Cultures*.

HyperStudio

During AY2011, HyperStudio, MIT's laboratory for digital humanities, took advantage of its move from the School of Humanities, Arts, and Social Sciences (SHASS) dean's office to CMS to build symbiotic relationships with other CMS research groups and to develop plans for diversifying HyperStudio funding in AY2012. At the same time, HyperStudio supported new uses of its existing educational projects at MIT and other universities; developed and refined new research and visualization tools; established a collaborative relationship with metaLAB (at) Harvard; continued to develop working prototypes for new projects; sponsored several successful outreach events; and joined with colleagues from Brown, Yale, Tufts, Harvard, and other New England universities to form a regional digital humanities working group. An overview of AY2011 project work follows:

US-Iran Relations: Missed Opportunities: With additional funding from the Center for International Studies, HyperStudio began building a public website designed to include all materials from the past three conferences on US-Iran relations, scholarly essays, and innovative finding tools. The new website is scheduled to go online in fall 2011. During AY2011, HyperStudio continued its collaboration with the Natural Language Processing Group in the Department of Computer Science at the University of Leipzig, a collaboration that will work to enhance the accuracy of texts from declassified documents to improve full-text search and metadata extraction.

Comédie-Française Registers Project: During AY2011, HyperStudio continued to develop data analysis tools for this innovative project, including (1) visualization tools that allow scholars to apply different criteria to view massive volumes of data in a variety of graphic representations, and (2) collaboration tools that enable any number of scholars to jointly transcribe the digitized facsimile pages of Comédie-Française performance ledgers from 1680–1793. Because these tools are fully modular, they can be integrated into any digital humanities project dealing with large data sets extracted from handwritten manuscripts. HyperStudio is currently seeking comparable cultural archives that can be analyzed using these tools and has identified two: the performance records of the Opéra Paris, and a similar archive stored at the Theater Instituut Nederland. Conversations are being initiated with both organizations to discuss collaboration possibilities.

With support from the MIT-France Seed Fund, a group of French theater scholars and PhD students from the collaborating universities in Paris (Sorbonne and Nanterre) met at MIT in October 2010 to discuss research, platform, and tool design issues in a three-day workshop. In mid-June 2011, a second workshop took place in Paris, with additional colleagues from other French universities, a prominent theater scholar from Australia, and colleagues from the Center for History and New Media at George Mason University. In addition, the Comédie-Française Registers Project (CFRP) was presented at a theater historian conference in June 2011 in Caen, France.

In the summer of 2010, HyperStudio principal investigator Jeffrey Ravel (History) applied for a major grant through the Preservation and Access Division of the National Endowment for the Humanities (NEH) to support ongoing work on CFRP. Although the NEH review panel gave the project excellent ratings and recommended funding, NEH was unable to award the grant due to congressionally mandated cuts in the NEH budget. The proposal has been revised for resubmission to NEH in July 2011, and other sources of funding are being sought. A description and prototype of CFRP can be accessed at: http://web.mit.edu/HyperStudio/cfr/.

Engaging Neighborhoods: New in AY2011, Engaging Neighborhoods is a joint project of HyperStudio and CMS's Center for Future Civic Media. Partial funding is being provided through the center's grant from the Knight Foundation, supplemented by an anonymous donor's support of HyperStudio's core operations. For this project, HyperStudio created a civic media platform that allows urban communities to document, discuss, and communicate contemporary neighborhood issues in reference to the rich histories of their neighborhoods. Initially focusing on the neighborhood

in the Oderberger Straße in Prenzlauer Berg, in former East Berlin, the project allows local resident organizations, local city planners, and local government agencies to document and share perspectives, initiatives, and documents around heavily debated issues in the neighborhood. Guided by CMS principal investigator Kurt Fendt, a group of undergraduate and graduate students went to Berlin in January 2011 to videotape interviews with local residents and city officials, collect materials, and work with one local resident organization to plan the online platform. First results from this project were presented at CMS's Media in Transition 7 conference, in May 2011.

Cultura: The new Cultura intercultural project website was completed during AY2011. The site's new features include an extensive help system and built-in assessment tools that allow teachers to track student activities and conduct detailed analysis of all exchanges. Because funding agencies that support digital media and learning projects are increasingly interested in assessment, and because the projects increasingly require built-in assessment tools, the time invested in developing such tools for Cultura during AY2011 has positioned HyperStudio for future support of its educational projects. Cultura can be accessed at http://cultura.mit.edu/.

Berliner sehen: One of HyperStudio's oldest projects, Berliner sehen continues to be used in German language and culture classes at MIT, McGill University, Swarthmore College, Vassar College, and Williams College. During AY2011, the Berliner sehen platform was adapted to support the Engaging Neighborhoods project and a similar project that is being planned for Boston's South End. Berliner sehen is described at http://HyperStudio.mit.edu and can be accessed at http://berlinersehen.mit.edu/ (registration required).

MetaMedia: Developed over 10 years ago to support humanities education at MIT, the MetaMedia platform allows faculty to create media-rich projects and mini-archives for teaching complex humanities subjects. More than a searchable digital repository, MetaMedia supports a heuristic and collaborative approach to learning that results in deeper understanding and new insights. To date, more than 1,000 students in 68 courses throughout MIT humanities curricula have used MetaMedia. In AY2011, HyperStudio supported the use of MetaMedia projects in several Foreign Languages and Literatures courses and developed plans for an updated and expanded version of the platform, MetaMedia 2.0, which will incorporate visualization and annotation tools developed for HyperStudio's newer, research-oriented platform, Repertoire. HyperStudio is currently seeking funding from a variety of foundations to support the development of MetaMedia 2.0, and is conducting concurrent outreach to humanities faculty at MIT and other universities. MetaMedia 1.0 can be accessed at http://metaphor.mit.edu (registration required).

MIXIMIZE: Editing for Readers: HyperStudio recently received funding from the Alumni Class Funds and the SHASS Teaching and Learning Fund to develop this new project in conjunction with senior lecturer Wyn Kelley (Literature). MIXIMIZE combines visualization, mapping, tagging, and multimedia annotation tools to make literary texts more accessible and engaging to students. MIXIMIZE allows students to interact with original sources, adaptations, variations, and different editions to support the process of analyzing, understanding, interpreting, and writing about literary texts. Initially

focusing on Mary Shelley's novel *Frankenstein* and Herman Melville's novel *Moby Dick*, this project aims to build a general educational framework for annotating, connecting, and comparing literary texts in a highly engaging and visual fashion. MIXIMIZE is built on top of HyperStudio's Repertoire platform.

Digital Humanities Workshops and Studio Talks: During AY2011, HyperStudio sponsored four events that attracted diverse audiences of faculty and students from MIT and Harvard University:

- A half-day workshop at Harvard University featuring the digital humanities
 projects of Harvard and MIT faculty. This event was sponsored in collaboration
 with metaLAB, Harvard's new digital humanities program.
- A workshop at MIT for MIT faculty led by the director of the Office of Digital Humanities at NEH.
- Learning through Play, a StudioTalk presented by associate professor Eric Klopfer (Department of Urban Studies and Planning [DUSP]) and the Education Arcade (TEA) research director Scot Osterweil.
- Listening Faster—How Digital Humanities is Transforming Music Scholarship, a Studio Talk presented by associate professor Michael Cuthbert (Music and Theater Arts) and Matthias Röder (Department of Music, Harvard University), and organized in collaboration with Harvard's metaLAB. A video recording of the talk can be accessed at: http://hyperstudio.mit.edu/blog/video-of-michaelcuthberts-and-matthias-roders-talk-listening-faster-how-digital-humanities-istransforming-music-scholarship-is-online/.

HyperStudio Project Presentations: HyperStudio projects were presented at US and international conferences, as well as at events at MIT, and included the following:

- MIT-Haiti "Best Practices for Reconstruction: Technology-enhanced and Open Education in Haitian Universities" Symposium, MIT, October 2010.
- "Cultural Insights—Engaging Students beyond the Foreign Language Classroom," 13th Annual Colloquium on International Engineering Education, University of Rhode Island, November 2010.
- Digital Humanities Faculty Workshop, jointly held at MIT and Harvard University, January 2011.
- "Engaging Neighborhoods with a Sense of History—Civic Media in Evolving Urban Settings," Media in Transition 7 Conference, MIT, May 2011.
- Logiciels pour la recherche historique: Les registres du Comédie-Française (with Professor Ravel), Université de Caen, June 2011.
- June 2011: Max Planck Institute for the History of Science, Berlin, June 2011.

Center for Future Civic Media

The MIT Center for Future Civic Media (http://civic.mit.edu/) was established in 2007 as a joint effort between the MIT Media Lab and CMS, bridging two established

programs at MIT—one known for inventing alternate technical futures, and the other for identifying the cultural and social potential of media change. The center received its original funding as the top winner in the inaugural Knight Foundation's News Challenge and this year received from the Knight Foundation a three-year renewal.

Center researchers and affiliates develop technical and social systems for sharing, prioritizing, organizing, and acting on information to support the flow of news in local communities. 2011 brought a renewed focus on testing center projects within diverse communities, from Boston and Brooklyn to Grand Rapids and Gaza. As a testament to its ongoing success, this year the center-born project Sourcemap spun off a for-profit arm, while another, Grassroots Mapping/Public Laboratory for Open Technology and Science, won a Knight News Challenge grant.

The center hosts weekly research meetings at MIT, international training workshops, a new series of Civic Media Sessions, and the annual Civic Media Conference. Highlights from this year's Civic Media Sessions include:

- Bustling with Information: Cities, Code, and Civics (http://techtv.mit.edu/collections/civic-media:1612)
- Civic Disobedience (http://techtv.mit.edu/collections/civic-media:1611/videos/12932-civic-media-session-civic-disobedience)
- Design for Vulnerable Populations (http://techtv.mit.edu/collections/ civic-media:1611/videos/12595-civic-media-session-design-for-vulnerablepopulations).

The Education Arcade

The Education Arcade (TEA) (http://www.educationarcade.org/) seeks to identify the pedagogical potential of games as a medium and to find ways to use games for learning both in and out of the classroom. This year, TEA completed work on *Vanished*, an eightweek online event developed in collaboration with the Smithsonian Institution, and supported by the National Science Foundation (NSF). The game engaged thousands of middle school–aged children worldwide in a series of unfolding mysteries that inspired them to undertake serious scientific exploration and research. In the process, players collected data, talked online with Smithsonian scientists, and collaborated on challenges of increasing complexity. Although analysis of the extensive data collected is ongoing, the game appears to have met its target goal of increasing player identity with science process, and inspiring greater interest in science careers.

Other projects include a simulation game exploring the role of microbial life in ocean ecology, developed in collaboration with associate professor Roman Stocker (Department of Civil and Environmental Engineering), and currently nearing completion. TEA was also recently awarded a Next Generation Learning Challenge (awarded by EDUCAUSE and the Bill and Melinda Gates Foundation). As part of the award, TEA will develop a nationwide competition encouraging schools to adopt *Lure of the Labyrinth*, an online game for middle-school math and literacy learning targeted toward underserved populations. *Labyrinth* was designed at TEA and has seen increasing numbers of adoptions nationwide, while receiving favorable notice in academic publications.

MIT Mobile Experience Lab

The MIT Mobile Experience Lab (MEL) seeks to radically reinvent and creatively design connections between people, information, and places. Using cutting-edge information and mobile technology, the lab seeks to improve people's lives through the careful design of meaningful experiences. MEL's multidisciplinary team researches and designs new technologies, carefully considering their impact on societies, spaces, and communities.

In November 2010, MEL organized the first annual Smart Sustainability Symposium, which provided a platform to discuss future opportunities for the creative use of information and communication technologies, as well as sustainable energy systems. The goal of the symposium was to identify new ways to improve the quality of interactions among people, architectural space, and local environment.

MEL also completed a project titled Next TV that investigated the connected, social future of television, in which any television can access an infinite amount of online content. Combining ethnographies of socially networked viewers and content with interaction design, the project outlines an innovative, multi-platform television interface. Looking beyond search and static menus, MEL has designed an innovative interface that compiles recommendations into a dynamic, personalized palimpsest overlaid with social and critical annotations. The resulting experience is exploratory and highly social, allowing the content to seduce the viewer and become the center of social interactions.

In the coming year, MEL will build a full-scale prototype of a connected, sustainable home, within the Green Home Alliance. The Green Home Alliance is a three-year collaboration between MEL and the Fondazione Bruno Kessler to imagine the sustainable, connected home from a multidisciplinary standpoint. By combining trends in renewable energy systems, sustainable architecture, and connected information systems, MEL is building a provocative vision of the home of the future.

MEL has two other collaborations in development: one with Banca Intesa Sanpaolo to design innovative financial services and technologies to improve the bank experience, and the other with Alcatel-Lucent to reinvent new forms of video collaboration through mobile devices.

Convergence Culture Consortium

The mission of the Convergence Culture Consortium (C3) is to track and analyze new ways of storytelling, advertising, and branding, and to examine how they can be placed in a larger artistic and commercial context. Turner Broadcasting is a corporate founding partner of the consortium; international partners include Petrobras (Brazil), Grupo Internet (Brazil), the Alchemists (Brazil), and Nagravision SA, a Kudelski Group company (Switzerland). C3's team members have authored a series of white papers and research memos, operated a project-related blog, and hosted a highly influential annual conference on the topic of media convergence, Futures of Entertainment. The project completed all of its deliverables in AY2011, and ended. The Futures of Entertainment conference series will continue through an off-campus organization, of which CMS is a member.

Finances and Funding

CMS saw significant growth in its sponsored funding over the last fiscal year. Total volume was approximately \$6M (\$5,966,965, of which \$5,247,000 is from sponsored funding), a 20 percent increase from FY2010 and the largest annual volume to date. Renewed commitment from the SHASS dean and faculty, the successful hiring of a development officer, and the addition of MEL were some of the factors in CMS's significant growth.

Singapore-MIT GAMBIT Game Lab received the fifth installment of its \$12M grant over five years. This year's installment was \$2.8M. The program continued its experimentation with the theory, aesthetics, culture, craft, legacy, technology, and play of games, and is completing its fourth year of a successful summer program for Singaporean students interested in hands-on experience with game design.

The Center for Future Civic Media completed its final year of a \$5M four-year grant from the Knight Foundation to create, deploy, and analyze technical and social tools that fill the information needs of communities. This year, the center successfully renewed the grant and will receive \$3.8M over the next three years. CMS will receive 40 percent of the \$3.8M, for a total of \$1.52M over the next three years.

The MIT Mobile Experience Lab (MEL) is CMS's newest research group. Originally housed in the Media Lab, MEL transitioned to CMS in January 2011. It has a variety of funding, including sponsored research and sponsored funds. In FY2011, it received \$355K from Banca Intesa Sanpaolo for an eight-month research project, Bank 2.0, to explore web 2.0 technologies for banking, and \$68K from the bank for a membership in the lab. Alcatel-Lucent provided \$160K for research in the use of technologies that replicate physical collaboration and improve productivity and the everyday experience of home, work, and mobile life. Fondazione Bruno Kessler continued funding of the Green Home Alliance, a three-year collaboration between MEL and the Fondazione Bruno Kessler to imagine the sustainable, connected home from a multidisciplinary standpoint. Total expected funding for the duration of this multiyear project is \$3,510,000. Total funds received to date are \$2,301,572. Total funds received in FY2011 were \$356,627.

This was the last year of the *Convergence Culture Consortium* (*C3*). Its funding level remained steady at \$283,328, from five sponsor members. The members included three Brazilian companies—Grupo Internet, Petrobras, and the group Os Alquimistas; the Swiss company Nagravision SA; and Turner Broadcasting, which has been a member since C3's beginning. The total fundraising for the duration of C3 was \$1,523,333. The Futures of Entertainment annual conference, founded by C3 and now a flagship conference in the field, will continue to be held at MIT but under the auspices of another institution.

The Education Arcade (*TEA*) received a \$500K grant from EDUCAUSE on behalf of the Next Generation Learning Challenge to fund the proposal "The Labyrinth Challenge: A National Competition for Seventh- and Eighth-grade Math Students." The project will deploy the math and science game *Labyrinth*, created by TEA, to underserved populations.

CMS received the fifth and final \$100K installment from an anonymous donor who

pledged \$500K over five years in support of the program. The funds will support two incoming graduate students. The same donor contributed another \$350,000 over three years to support the HyperStudio project and other programmatic needs, including graduate student funding.

The *Chris Pomiecko Memorial Fund*, recognizing outstanding media productions by CMS undergraduates, graduates, and the MIT community, was established in honor of longtime CMS program administrator Chris Pomiecko. The fund continued to grow, as more donations arrived, and it now has an annual endowment income of close to \$1K.

The *Greg Shaw Technologist in Residence Fund*—an endowment fund established by Greg Shaw, an electrical engineering and computer science alumnus and an early supporter of CMS—continued to accrue endowment, and its FY2011 payment was \$38K.

Gerald Katell, an MIT alumnus and CMS advisory group member, continued payment on the \$1M he pledged over 10 years to endow the *Gerald L. Katell (1962) Fellowship and Education Fund in Comparative Media Studies*. The AY2011 payout was \$36K. The fund helps support programmatic needs such as lectures, conferences, and student fellowships.

Staffing

Staffing levels in AY2011 increased over last year's levels mainly due to the transfer of MEL to CMS. Six MEL research staff transferred to CMS, including director and research scientist Federico Casalegno, programmer Stephen Pomeroy, postdoctoral associate Sotirios Kotsopoulos, technical assistants Amar Boghani and Wei Dong, and visiting scholar/interaction designer Nicholas Wallen. One inconclusive search took place for an administrator.

Five MIT research assistants held appointments at MEL in AY2011, as well as two undergraduate researchers. Seven temporary workers and consultants have contracts with MEL to work on the Bank 2.0 project, the Alcatel-Lucent project Talking about Things, and the Green House Alliance, all of which are in full research mode.

CMS conducted a successful search for a tenure-track assistant professor, and Sasha Costanza-Chock was hired as assistant professor of civic media. CMS will be conducting two searches for faculty in AY2012 and CMS's staffing will dramatically change in AY2013, when it becomes a section and expands to 18 faculty members.

Other CMS hires include an assessment researcher, Sviatlana Fahmy, hired through the Center for Future Civic Media, and a development officer who works with faculty and researchers associated or collaborating with the CMS program. The Singapore-MIT GAMBIT Game Lab hired a postdoctoral associate, Todd Harper.

Development

AY2011 has been a time of intensified development efforts to support the growth of CMS research groups and to provide financial support for all incoming graduate students.

Conversations with Knight Foundation leadership have resulted in the foundation's decision to renew the multiyear grant that funds the Center for Civic Media.

Negotiations with the Singapore government have led to a one-year extension of the current GAMBIT contract and a reasonable confidence that a four-year contract will be renewed next year, following an ongoing negotiation process. TEA was awarded a major grant from the Gates and Hewlett foundations to fund a nationwide contest that will involve 75,000 middle-school math students using a learning game developed by the TEA team. In the coming year, CMS plans to target other sources that will fund deployment of its research products, increasing their impact while supporting the operations of the research groups. Each of the other research groups—MEL and HyperStudio—have also raised funds that will sustain innovative projects over the next year and position them for growth. In addition to the Knight, Gates, and Hewlett foundations, funders include Banca Intesa Sanpaolo, Alcatel-Lucent, the MIT Alumni Fund, and NEH.

CMS's new development officer has begun collaborating with faculty who will be joining CMS after reorganization to develop research proposals that will support graduate student research assistants and draw upon the combined strengths of the new CMS section.

New gifts and grants secured over the past year have enabled CMS to provide full fellowships for all 10 graduate students entering the program in fall 2011. CMS has also secured funding for 16 full fellowships for the following year, when the number of its graduate students will increase to 20. Most of this support comes from grants awarded for research and deployment projects.

Looking ahead, CMS has begun to cultivate new relationships with corporate and international funding sources. This strategy will help CMS remain strong as funding opportunities from private foundations and government sources continue to be constrained by economic conditions. Over the past few months, CMS has initiated ongoing conversations with Tencent and Digitas, with the goal of achieving fellowship and research support. It has also made contacts with European organizations, including the Max Planck Institute, that show interest in working with and supporting HyperStudio.

Events

CMS maintains a high level of outreach with numerous lectures, colloquia, conferences, and other activities. These events are widely promoted on and off campus, and audio and/or video podcasts of each event are produced and publicized for outreach and archival purposes. Most of the research groups also have active and well-trafficked blogs and Twitter feeds.

CMS Colloquia

- "The Imagination, Computation, and Expression Lab: Phantasmal Media," D. Fox Harrell (MIT)
- "The Aesthetics of Projective Spatiality: New Media as Critical Objects,"
 Francisco Ricardo (Boston University)

- "NGO 2.0: When Social Action Meets Social Media," Jing Wang (MIT)
- "Mystery Science Theater 3000 and Cinematic Titanic," Trace Beaulieu and Mary Jo Pehl (performers)
- "She's Got LEGs and She Knows How to Use Them: How Neighborhoods Can Use Local Engagement Games to Build Community and Plan for the Future," Eric Gordon (Emerson College)
- "Amsterdam and New York: Transnational Photographic Exchange in the Era of Globalization," Christoph Lindner (University of Amsterdam)
- "From Elsinore to Monkey Island: Theatre and Videogames as Performance Activities," Clara Fernández-Vara (MIT)
- "How Documentary Went Digital: The Implications of Informal Filming and Skeptical Audiences," John Ellis (Royal Holloway University of London)
- "Between Page and Screen: Digital, Visual, and Material Poetics," Amaranth Borsuk (MIT)
- "(Face)book of the Dead," Mark Dery (cultural critic)
- "The End of the Virtual: Digital Methods," Richard Rogers (University of Amsterdam)
- "Race and Representation After 9/11," Cynthia Young (Boston College)

Communications Forum

Directed by professor David Thorburn (Literature) and coordinated by communications assistant Brad Seawell, the Communications Forum sponsors lectures, panel discussions, and conferences on all aspects of technology and communications, public policy, and media in transition. For more information about the Forum, see http://web.mit.edu/comm-forum/.

- Online Migration of Newspapers: David Carr (*The New York Times*), Dan Kennedy (Media Nation), David Thorburn
- Humanities in the Digital Age: Alison Byerly (Middlebury College), Steven Pinker (Harvard University)
- Civic Media and the Law: David Ardia (Citizen Media Law Project), Daniel Schuman (Sunlight Foundation), Micah Sifry (Personal Democracy Forum)
- Communications in Slow-moving Crises (with the Center for Future Civic Media): Abrahm Lustgarten (ProPublica), Andrea Pitzer (Nieman Storyboard), Rosalind Williams (Program in Science, Technology, and Society)
- Online News: Public Sphere or Echo Chamber?: Pablo Boczkowski (Northwestern University), Joshua Benton (Harvard University)
- A Conversation with Sherry Turkle: Sherry Turkle (Program in Science, Technology, and Society), David Thorburn

Civic Media Sessions

- Bustling with Information: Cities, Code, and Civics: Nick Grossman (OpenPlans),
 Nigel Jacob (New Urban Mechanics), Max Ogden (Code for America)
- Civic Tools: The Latest from the Center for Future Civic Media
- Understanding Check-ins: From Emergent Location-sharing Practices to Location Mash-ups: Henriette Cramer (Swedish Institute of Computer Science)
- Steve Kurtz: Cultural Resistance: Steve Kurtz (Critical Art Ensemble)
- Design for Vulnerable Populations: Charlie DeTar (MIT Media Lab), Patricia Deegan (Dartmouth College and Boston University), Liz Barry (Public Laboratory for Open Technology and Science), Nathan Cooke (MIT D-Lab [Development through Dialogue, Design, and Dissemination])
- Civic Disobedience: Ethan Zuckerman (Center for Civic Media), Clay Shirky (New York University), Zeynep Tufekci (University of Maryland), Sami ben Gharbia (Global Voices Advocacy)

Studio Talks/Humanities + Digital Conversations

- Learning Through Play: Eric Klopfer (DUSP) and Scot Osterweil
- Listening Faster: How Digital Humanities is Transforming Music Scholarship: Michael Cuthbert (Music and Theater Arts) and Matthias Röder (Department of Music, Harvard University)

Independent Activities Period (IAP)

- January 3–26: The Life and Death of John Carpenter: A Film Symposium
- January 6–8: Three Films by Nobuhiro Yamashita
- January 10: Is This On? (Learn To Be a College DJ)
- January 18: Game Design Challenge: You've Just Got Two Students and a Microphone
- January 19: Become a Game Master for an Educational Alternate Reality Game!

Conferences

- Media in Transition 7—Unstable Platforms: The Promise and Peril of Transition
- Second Annual Sandbox Summit (TEA): Game Changers
- 2011 MIT-Knight Civic Media Conference

Special Events

- The Open Source City: Civic Media in the Urban Environment: Laura Forlano (Cornell University)
- Media and Resilience: Creative [Do It Yourself] DIY Cultures and Civic Agency among Marginalized Youth: Nitin Sawhney (The New School)
- Se Ve, Se Siente: Transmedia Mobilization in the Los Angeles Immigrant Rights Movement: Sasha Costanza-Chock (CMS)
- "I did it for the Lulz! but I stayed for the outrage:" Anonymous, the Politics
 of Spectacle, and Geek Protests against the Church of Scientology: Gabriella
 Coleman (New York University)
- Contemporary Issues in South Asian Diasporic Popular Culture: Shilpa Davé (Brandeis University), Dhiraj Murthy (Bowdoin College), Helen Kim (London School of Economics)
- 13th Annual Media Spectacle
- Complete Game-Completion Marathon
- European Short Film Festival
- MIT 150th Open House
- The People Reloaded: The Green Movement and the Struggle for Iran's Future (cosponsored with Center for International Development)
- The Humanities' Choice: Knowledge Economy or Culture of Interpretation?: (with Foreign Languages and Literatures and MIT-France Program) Yves Citton (University of Grenoble)
- 2011 Global Game Jam
- GAMBIT Exhibit Grand Opening at MIT Museum
- CMS Staff Orientation
- CMS Graduate Information Sessions

Communications Efforts

CMS sets high standards for its use of media, striving for varied, well-tailored communications efforts. In the course of the reporting year, cms.mit.edu welcomed 114,095 visitors—a 24 percent increase over the year before—during what was expected to be a quiet year. There were traffic spikes when major websites featured CMS graduate students' theses and upon the release of TEA's game *Vanished*, but the bulk of the increase came from broadened interest in graduate program pages and from a dramatic rise (over 50 percent) in searches specifically for "MIT Comparative Media Studies" and its variants.

This year, not including additional content produced by its research groups, CMS has:

- produced 36 podcasts (video and audio), garnering tens of thousands of views via iTunes and TechTV
- increased its social media reach, including pushing its Twitter following above 2,500 users
- added 89 subscribers to its mailing list, for a total of nearly 600, with the ability to target emails to key groups, geographies, etc.
- continued producing professional-grade feature articles for use in newsletters, by SHASS staff, etc.
- partnered more closely with the MIT News Office and other campus communications staff, including playing a key role in the news office's Social Media Working Group, responsible for setting campus-wide social media policies
- redoubled its alumni outreach following remarkable turnout at the CMS anniversary and reunion held in April 2010.

These accomplishments come in addition to one-off projects, such as the creation of a video tour, Media@MIT, as well as research groups' own ambitious communications work, which include their own podcasts, mailings, and wide array of blogs. (The Center for Civic Media alone has nearly 2,500 Twitter followers and published 140 blog posts from July 2010 through June 2011.)

Together, these communications efforts have expanded CMS's reach, kept key constituents engaged with events and collaboration/funding opportunities, and reinforced CMS's leadership role among prospective students, MIT faculty, peer universities, foundations, and fans.

Honors and Awards

All CMS-affiliated faculty also report honors and awards through their home departments. The following represents a selection of the faculty and their AY2011 activities.

Amaranth Borsuk, Mellon Postdoctoral Fellow in the Humanities (Writing and Humanistic Studies), received the 2011 *Gulf Coast* Poetry Prize, selected by Ilya Kaminsky, for the poem "A New Vessel." She was also a finalist in Concours poésiemédia 2011, Biennale Internationale des Poètes en Val-de-Marne, Vitry-sur-Seine, France, for *Between Page and Screen*, an augmented reality artist's book created with Brad Bouse.

Ian Condry (Foreign Languages and Literatures) was awarded a Japan Foundation fellowship for a new research project titled "The Uses of Social Media: An Ethnographic Comparison of Japan and the US."

D. Fox Harrell (Writing and Humanistic Studies) received an NSF CAREER Award for "Computing for Advanced Identity Representation." He also received an NEH Digital Humanities Start-up Grant for "Speakerly Interactive Narrative: Embodied Interaction in Culturally-rooted Digital Storytelling," and an NSF Workshop Grant.

Wyn Kelley (Literature) won two grants—from the Alumni Class Funds and the SHASS Teaching and Learning Funds—to develop pedagogy and (with HyperStudio) the digital program MIXIMIZE: Editing for Readers, for editing, annotating, and sharing student work on multimedia texts. She also received a one-year appointment as president of the Melville Society.

Bruno Perreau (Foreign Languages and Literatures) was awarded a Newton International Fellowship, Sociology, Cambridge University, January 2011–December 2012, for the research project "Adoption and the Media: France, the United States, and the United Kingdom Compared."

William Uricchio (Literature, Foreign Languages and Literatures) was awarded a oneyear fellowship to the Institute for Advanced Studies at Göttingen University, Germany. He was also named a Danish Research Centre on Education and Advanced Materials professor, Denmark (Danish national visiting professor).

Publications and Related Activities

The AY2011 academic and creative work of the faculty members affiliated with CMS appears in more complete form in their departmental reports. Highlights appear below.

Edward Barrett (Writing and Humanistic Studies) published the poetry collection *Down New Utrecht Avenue* (Pressed Wafer, 2011), and *The Holy Sonnets* (poetry and visual arts), in collaboration with Amanda Matthews.

Amaranth Borsuk's (Writing and Humanistic Studies) publications, poetry translations, and gallery installations included:

Publications:

- "Transverting the Bestiary: Translating Paul Braffort's Mes Hypertropes" with Gabriela Jauregui, *Aufgabe* 10 (2011).
- "□" and "□," *Cutbank* 75 (2011).
- "Wreathing," "Skiving 1," "Skiving 2," and "Skiving 3" with Kate Durbin. Visual art by Zack Kleyn. *VLAK* 2 (2011).
- "Stretching," "Encroaching," and "Blooming" with Kate Durbin. Visual art by Zack Kleyn. *Black Warrior Review* 27, no. 1 (2010).
- "Ablution," Colorado Review 37, no. 2 (2010).

Poetry translations, with Gabriela Jauregui:

- "Hypertrope 9," "Hypertrope 11," and "Hypertrope 13" by Paul Braffort, Western Humanities Review 65, no. 2 (2011).
- "Hypertrope 12," "Hypertrope 16" by Paul Braffort, Aufgabe 10 (2011).
- "Hypertrope 8," "Hypertrope 10," "Hypertrope 18," and "Hypertrope 19" by Paul Braffort, *Caketrain* 8 (2010).

Gallery installation, Between Page and Screen:

- "233° Celsius—eine andere Bibliothek," KunsTTempel, Kassel, Germany (2010).
- "Wonder Rooms," Text Festival, Bury Art Gallery and Museum, Bury, United Kingdom (2011).
- "A Decade of E-poetry," Visual Studies Gallery, Center for the Arts, State University of New York, Buffalo (2011).
- "Movens," Poesiefestival, Akademie der Künste, Berlin, Germany (2011).

Ian Condry's (Foreign Languages and Literatures) publications included:

- "Touching Japanese Popular Culture: From Flows to Contact in Ethnographic Analysis," *Japanese Studies* 31, no. 1 (May 2011).
- "Dark Energy: What Fansubs Reveal about the Copyright Wars," *Mechademia* 5: Fanthropologies, ed. Frenchy Lunning (2010). Published simultaneously in Japanese in *Hitotsubashi Business Review* 58, no. 3 (2010), special issue on Cool Japan.
- "Japanese Popular Music," *The Routledge Handbook of Japanese Culture and Society*, eds. Theodore Bestor and Victoria Bestor (London: Routledge, 2011).
- "Hosoda Mamoru, Ekonte to Anime no Tamashii" ("Mamoru Hosoda, Storyboards and the Soul of Anime"), published in Japanese in *Anime wa ekkyô suru* (*Anime is Transgression*), ed. Toshiya Ueno (Iwanami Publishers: Tokyo, 2010).

D. Fox Harrell's (Writing and Humanistic Studies) publications and exhibitions included:

- "A Journey Along the Borderland: A Critical Approach to Artificial Intelligence—Based Literary Practice" with Jichen Zhu, *Arts: A Science Matter*, ed. Lui Lam (Singapore: World Scientific, 2011).
- "Style: A Computational and Conceptual Blending-Based Approach" with Joseph Gogeun, *The Structure of Style: Algorithmic Approaches to Understanding Manner and Meaning*, eds. Shlomo Argamon and Shlomo Dubnov (Berlin: Springer-Verlag, 2010).
- "Steps Toward the [Advanced Identity Representation] AIR Toolkit: An Approach to Modeling Social Identity Phenomena in Computational Media," *Proceedings of the 2011 International Conference on Computational Creativity* (April 2011).
- "Computational Narration of Inner Thought: Memory, Reverie Machine" with Jichen Zhu, *Hyperrhiz: New Media Cultures* (a peer-reviewed satellite journal of *Rhizomes: Cultural Studies in Emerging Knowledge)* (2011).
- "Toward a Theory of Critical Computing: The Case of Social Identity Representation in Digital Media Applications," *CTheory* (2010).
- "A Cultural Computing Approach to Interactive Narrative: The Case of the Living Liberia Fabric" with Chris Gonzalez, Hank Blumenthal, Ayoka Chenzira, Natasha Powell, Nathan Piazza, and Michael Best, *Proceedings of the Fall* 2010

- [Association for the Advancement of Artificial Intelligence] AAAI Symposium on Computational Models of Narrative (November 2010).
- "Designing Empowering and Critical Identities in Social Computing and Gaming," CoDesign International Journal of CoCreation in Design and the Arts 6, no. 4 (2010).
- "Phantasmal Fictions," *American Book Review* 31, no. 6, ed. Joseph Tabbi (September/October 2010).
- "Embodying Generative Visual Renku: An Approach to Generating Metaphors through Interaction" with Kenny K. N. Chow, *Proceedings of the 13th Generative Art Conference GA2010*, Politecnico di Milano University, Italy (December 2010).
- "Coding Landscapes, Crossing Metaphors" with Kenny K. N. Chow, Computational Thinking in Existing Art Forms, Writing Machine Collectives 4th Exhibition, Hong Kong (January 2011).

Nick Montfort (Writing and Humanistic Studies) published "Toward a Theory of Interactive Fiction" in [Interactive Fiction] IF Theory Reader (Transcript On Press, 2011). His digital media projects included:

- Curveship, a Python framework that allows author/programmers and researchers to develop interactive fiction with interactive narrating (released February 2011).
- Text jockey performances (projecting words serially to accompany music) at Dance Technology and Circulations of the Social, MIT (April 2011); and at Beat Research, the Enormous Room, Cambridge, MA (January 2011).
- "Sea and Spar Between" with Stephanie Strickland, a poetry generator, *Dear Navigator* (Winter 2010).

James Paradis (Writing and Humanistic Studies) coedited *Victorian Science as Cultural Authority* with Suzy Anger (London: Pickering and Chatto, 2011).

Bruno Perreau's (Foreign Languages and Literatures) publications included:

- "L'ombre de la loi (Blanchot, Duras, Foucault)," Multitudes 44 (Spring 2011).
- "De la responsabilité pour autrui: réflexions sur le 'coming-out' homoparental," *Homosexualités, révélateur social?*, ed. Christophe Bareille (Mont-Saint-Aignan: Publications des Universités du Hayre et Rouen, July 2010).
- "La réception du geste queer en France: Performativité, subjectivation et devenir minoritaire," *Le genre à l'épreuve des dispositifs de pouvoir, de langage et de catégorisation sociale*, eds. Natacha Chetcuti and Luca Greco (Paris: Presses de l'Université Paris III, December 2011).
- "Rachid O.'s Inner Exile: Homosexuality and Postcolonial Textuality,"
 Masculinities in Twentieth- and Twenty-first Century French and Francophone
 Literature, ed. Edith B. Vandervoort (Cambridge: Cambridge Scholars Publishing, May 2011).
- *Moral Boundaries: A Political Argument for an Ethic of Care* by Joan Tronto, review in *Genre, Sexualité & Société*, no. 4 (December 2010), http://gss.revues.org/.

• "La question du genre: Entretien avec Joan W. Scott," *Genre, Sexualité & Société*, no. 4 (December 2010), http://gss.revues.org/.

Jeffrey Ravel (History) published "Husband-Killer, Christian Heroine, Victim: The Execution of Madame Tiquet, 1699," *Seventeenth-Century French Studies* 32, no. 2 (2010), and the online website for MIT Libraries' exhibit *Technology and Enlightenment: The Mechanical Arts in Diderot's Encyclopédie*, http://libraries.mit.edu/sites/exhibits/maihaugen-gallery-2/diderots-encyclopedie/.

Irving Singer (Philosophy) published *Modes of Creativity: Philosophical Perspectives* (The MIT Press, 2010).

William Uricchio's (Literature, Foreign Languages and Literatures) publications included:

- "Nella camera oscura c'e piu di quanto lo sguardo riesca a cogliere" in Elio Girlanda, *Il precinema oltre il cinema: Per una nuova storia dei media audiovisivi* (Rome: Dino Audino, 2010).
- "TV as Time Machine: Television's Changing Heterochronic Regimes and the Production of History," *Relocating Television: Television in the Digital Context*, ed. Jostein Gripsrud (London: Routledge, 2010).
- "Rethinking the American Century," *Media, Popular Culture, and the American Century*, eds. Kingsley Bolton and Jan Olsson (Eastleigh: John Libby, 2010).
- "The Algorithmic Turn: Photosynth, Augmented Reality and the Changing Implications of the Image," *Visual Studies* 26 (April 2011).
- "DocLab: The Shape of Documentaries to Come," [International Documentary Film Festival Amsterdam] IDFA Catalogue (2010).

James Paradis Interim Director Robert M. Metcalfe Professor of Writing and Humanistic Studies Professor of Comparative Media Studies