Berkman

The Berkman Center for Internet & Society at Harvard University

Annual Report for Academic Year 2010–2011

EXECUTIVE SUMMARY

The Berkman Center continues to pursue its long-term strategic plan of sustained investment in collaborative research and teaching, partnerships, and network-building as a platform for innovative research methodologies and new initiatives—the next generation of our work. Building upon the streamlined and highly integrated workflow model developed in response to the financial crisis in 2008–2009 and honed in 2009–2010, the Center, under the leadership of Faculty Chair Professor William W. Fisher, has intensified and leveraged its activities in this regard in the 2010–2011 academic year, **strengthening collaboration and boosting cooperation** internally, externally, and among the many members of our network.

Among people

Over the last three years, we have remade and refined our processes around two of the Berkman Center's flagship efforts, the fellowship and summer internship programs. This remodeling crystallized during this academic year with the implementation of a modified outreach and recruiting strategy, as well as a multi-step selection process, with the goal of bringing the most diverse set of outstanding participants and perspectives into the Center as possible. This year marked a high point in the number and diversity of applications received, representing a large number of countries, academic institutions, and personal backgrounds. As a result, the 2011 summer interns and the 2011–2012 fellows classes enjoy a richness of particularly diverse individuals.

In parallel, we have created processes and improved infrastructure that invites and enables our affiliated faculty members to cooperate with one another, as well as with colleagues from other institutions, on ambitious interdisciplinary projects, often on an international scale. This year's most visible example (following last year's Broadband report submitted to the FCC) was the Center's contribution to Internet Corporation for Assigned Names and Numbers' first Accountability and Transparency Review. The Center conducted an extensive independent study of ICANN's decision-making and communications processes, led by Executive Director Urs Gasser and coordinated by Caroline Nolan, on an extremely aggressive timeline. The scope of the study was both domestic and international, and required expertise from a variety of disciplines. The ICANN study was a (successful) test of the Center's fully integrated core model, continued investment in project management capacity, and advanced infrastructure for distributed collaboration. The project involved many Berkman Center directors, along with Professor John Coates of the Law School, faculty from the University of St. Gallen, and a significant swath of staff, senior researchers and fellows, summer interns, and student research

assistants.

Less visible has been the Center's re-invention of its celebrated Internet Law (iLaw) program, led by Faculty Co-Director Jonathan Zittrain. (Professor Zittrain was recently appointed as the FCC's Distinguished Scholar; he will serve as the FCC's Distinguished Scholar while continuing his teaching and scholarship at Harvard.) The iLaw program will be held at Harvard Law School in the fall of 2011 and will feature a fresh take on the cyberlaw curriculum over an intensive four-day period. During the program, approximately 200 participants, including current HLS students, faculty, fellows, selected guests, and colleagues from the Harvard community, will revisit the foundational aspects of cyberlaw with our renowned faculty and colleagues and share current research efforts on Internet-related topics.

Among projects

In response to the increased complexity of our research endeavors, and in an effort to continue to harness some of the fruits of the more integrated core model developed in response to the financial crisis, the Berkman Center continues to create, leverage, and institutionalize synergies among our own research initiatives. Two efforts warrant special mention: Internet Monitor and the Youth and Media Lab.

Internet Monitor: This year we refined our plans for a public-facing dashboard that would create a single interface for accessing the streams of data that are generated by the many activities that fall primarily under our "Relationship between Internet and civic activity" research area, as well as our work on digital infrastructure. Data streams run the gamut from reports of website inaccessibility received by the Herdict Web platform, to mapping of autonomous systems around the world, to country-specific filtering results from the OpenNet Initiative. The proposed Internet Monitor would make it easy to access an up-to-date view of ways in which control is exerted and subverted online. The Internet Monitor will make explicit and publicly accessible some of the conceptual synthesis that occurs on the fly at the Center and will link a massive body of research and data collected over the past decade.

The collection of projects that will eventually feed the Internet Monitor proved their worth this year—in a kind of unplanned proof of concept—as the events of the so-called "Arab Spring" coincided with the international debates surrounding Wikileaks' release of US State Department cables. The Center's work on Arabic blogs, systems for circumventing technical censorship, distributed denial of service attacks, Internet filtering and content control, activism and technology, and media law helped inform in-depth academic analysis and controversial debates about the impact of digital technologies on political systems around the world.

Youth and Media Lab: Launched in spring 2011, the Youth and Media Lab is a youth-driven R&D lab that brings together talented young people with mentors from the Berkman Center and our broader network. The Lab is envisioned as the first node in an international network for media literacy and the digital empowerment of young people. The Lab unites strands of research around issues of youth technology use, online safety, privacy, and media literacy, threading them into a context of practice that emphasizes mentorship and peer-to-peer learning through an ambassadors program. We are excited about the possibilities of a national and international

archipelago of such Labs that will help empower a new generation of Internet users, while informing policymakers, researchers, technology providers, and stakeholders (like parents).

Across the University

2010–2011 was the second year of the joint fellowship program between the Berkman Center and the Center for Research on Computation and Society (CRCS) at the School for Engineering and the Applied Sciences. While we continue to work on smoothing out the challenges of integrating two previously independent programs, our partnership has yielded numerous benefits for both centers, including the development of a series of NSF proposals as well as a proposal for a multi-year, multi-disciplinary initiative at Harvard that addresses privacy and cybersecurity. The initiative envisions a University-wide effort with teaching elements, research clusters, and policy outputs that will bring together experts from CRCS and Berkman with others around Harvard.

Our efforts to develop the privacy track of the proposal culminated in a major event this June, "Hyper-Public: A Symposium on Designing Privacy and Public Space in the Connected World," where scholars from diverse disciplines such as design, architecture, social science, law, economics, and evolutionary biology explored the new and blurring lines between private and public spaces. With regard to the cybersecurity cluster, the Berkman Center, in collaboration with the Radcliffe Institute, organized a University-wide, one-day workshop to exchange views on the state of the field and to discuss the contours and extent of cybersecurity as a space for shared inquiry, whether formal or informal. The resulting field mapping document will help to guide future collaborations, including a joint seminar series, in this area.

The Harvard Law School Library (HLSL), led by Berkman Co-Director Professor John Palfrey, the Harvard Library Innovation Laboratory at HLS, and the Harvard Office of Scholarly Communication (OSC) continue to support a cluster of shared conversations and thriving development work, including the recoding and improvement of our H2O suite of online teaching and learning tools. Another important cross-disciplinary initiative in which the Center has been involved is the metaLAB (at) Harvard, led by Professor Jeffrey Schnapp. This recently founded institutional home for Harvard's digital art, design, and humanities communities—which has been incubated and hosted by the Berkman Center— constitutes an additional linkage among our communities through the extraMUROS project, which makes it possible for Harvard-owned digital multimedia collections to be annotated, remixed, and connected to other repositories. The extraMUROS project is being developed under the auspices of the Harvard Library Lab and is a pilot implementation of Zeega, a platform for interactive, collaborative documentaries; it was created by a trio of the metaLAB's co-founders (based on the work they did after earning a Berkman Center Graduate Student Award) and was a Knight New Challenge winner this year.

Among organizations around the world

Executive Director Urs Gasser continues to lead the Berkman Center's internationalization efforts, with a particular focus on creating opportunities to capitalize on our active collaborations with Keio University in Japan, the NEXA Center for Internet & Society in Italy, and the Research Center for Information Law at the University of St. Gallen in Switzerland, among other

institutions around the world. Faculty and staff members from St. Gallen contributed to the ICANN study and Hyper-Public symposium, and Professor Herbert Burkert was appointed visiting professor at Harvard Law School for the next academic year.

As part of its collaboration with Keio University, where Gasser has been appointed guest professor, the Center co-organized an international workshop in Tokyo in November 2010 on a broad range of legal and regulatory issues associated with the Internet of Things. Our partnership was also extended via an exchange program for individual faculty members and senior researchers. The Center is working in close collaboration with Keio, the NEXA Center, and the University of St. Gallen on its Cloud Computing initiative, which seeks to develop a set of best practices for policymakers engaged in the development of an appropriate, interoperable legal and regulatory framework for cross-border cloud services. The initiative will be supported by Vivek Kundra, who currently serves as the US government's first Chief Information Officer and will join the Center as a fellow in the next academic year.

Following June 2010's "University and Cyberspace: Reshaping Knowledge Institutions for the Networked Age," which Berkman faculty and staff helped to design and organize, the NEXA Center has continued to collaborate with the Center, primarily regarding key questions raised in the context of the conference, such as the role of and opportunities for universities in a networked age. NEXA director Juan Carlos de Martin, who is currently working on a book project with Berkman Faculty Co-Director Charles Nesson, will be a Berkman fellow in the coming academic year. In addition, Gasser has recently been appointed a member of the NEXA board of trustees.

Berkman Faculty Co-Director Yochai Benkler initiated and directed a research collaboration with Sciences Po in France, where he is undertaking a set of joint studies with leading faculty members and researchers, examining the microfoundations and dynamics of online interactions between Internet users of various types. (This year, Professor Benkler also received the $100,000 Ford Foundation Visionaries Award as one of twelve innovators chosen for their vision, leadership, and pioneering work.)

The Berkman Center has continued to work in Nigeria with the Georgia Institute of Technology. An event last summer on "ICTs and Civic Engagement: the 2011 Presidential Election and Beyond", in conjunction with Nigeria's Digital Bridge Institute and the National Democratic Institute for International Affairs, provided the foundation for a series of smaller conversations in Nigeria and at the Center. On the anniversary of the earthquake in Haiti, the Berkman Center—in collaboration with the ICT4Peace Foundation, a Swiss NGO, and the Georgia Institute of Technology—released a collection of essays on *Peacebuilding in the Information Age: Sifting Hype from Reality*, the first in a planned series of related publications.

Launched in December 2010 with funding from the Sloan Foundation, the Digital Public Library of America (DPLA) planning initiative—a large-scale, multi-year collaborative effort to make the cultural and scientific record of humanity available online to all—is led by Faculty Co-Director John Palfrey, who also chairs the DPLA Steering Committee. (Professor Palfrey was named one of *Library Journal*'s Movers & Shakers of 2011 in the Change Agents category.) The Berkman Center serves as the Secretariat of the effort, and, in the course of the DPLA's

development toward a working prototype, has connected with a wide variety of actors and constituencies involved in the building of digital libraries within the US, as well as foreign initiatives such as Europeana. The “big tent” approach of the DPLA has produced synergistic effects within our own extended network, e.g., with affiliated groups entering the DPLA’s Beta Sprint, which seeks innovations from individuals, libraries, organizations, and others that could play a part in the building of a digital public library.

Finally, long-time Berkman fellow Ethan Zuckerman has been named the director of the MIT Media Lab’s Center for Civic Media. The Center is excited about this appointment and is looking forward to increased exchanges with the larger Media Lab community under the new leadership of Berkman affiliate Joi Ito, as well as with the students and developers contributing to the Center for Civic Media (our recently revamped Media Cloud project will serve as a first natural bridge between the two organizations). During his many years at the Center, as a fellow and a member of the Fellowship Advisory Board (FAB), Zuckerman’s work has been tremendously inspiring and influential; he will continue to serve on the Berkman Center’s FAB this year.

About the Berkman Center

Mission

The Berkman Center’s mission is to explore and understand cyberspace; to study its development, dynamics, norms, and standards; and to assess the need or lack thereof for laws and sanctions.

We are a research center, premised on the observation that what we seek to learn is not already recorded. Our method is to build out into cyberspace, record data as we go, self-study, and share. Our mode is entrepreneurial nonprofit.

Scholarship with Impact

The Berkman Center is devoted to research and teaching on issues at the intersection of emerging technologies, law, public policy, industry, and education and to the development of dynamic approaches and rigorous scholarship that can affect and support the public interest.

A foundational element of our mode and mission is to find ways to make our intellectual community more vibrant and enriching for our faculty, students, fellows, staff, and the rest of the University. Our status as a University-wide research center has benefited the Center, the Law School, and the larger University community by enabling us to collaborate more effectively with other schools, departments, and centers. It also facilitates the realization of our goal of being truly interdisciplinary in orientation, mode, and scope.

Areas of Inquiry

The Berkman Center seeks to be an honest broker in conversations about the relationship between the Internet and related technologies and society. Our efforts concentrate on three zones, united by the question of how the Internet can elicit the best from its users:

- Law, Technology, Innovation, and Knowledge
- The Relationship between the Internet and Civic Activity
- Technology, Law, and Development

In the field of **intellectual property**, we have sought to develop creative ways of resolving, in a rapidly changing technological environment, the tension between the need to stimulate innovation and the importance of providing broad public access to the fruits of that innovation. In our second core area, we see an enormous need to bring clarity to the conversation about the **Internet's impact on democracy**. As more activists are using the network as an essential toolkit for speaking out in democratic and non-democratic regimes alike, their personal security is increasingly threatened and their self-expression thwarted. In our third area of focus, we envision a growing opportunity to use Internet technologies to enhance **economic and educational opportunities** in developing countries, to improve the way that we teach and learn, and to make information accessible to citizens around the world who are not physically proximate to our libraries.

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I. REPORT OF ACTIVITIES

A. Teaching

Since the Berkman Center's inception, our top priority has been teaching across the wide range of our areas of inquiry.

1. Contributions to Harvard's Teaching Programs

Berkman faculty, staff, and fellows taught a number of courses at Harvard Law School, Harvard College, and Harvard Extension School during the 2010–2011 academic year, including:

- "Copyright," taught by Professor Terry Fisher;
- "Online Law and Business in a Globalized Economy," a seminar taught by Berkman Center Executive Director Urs Gasser;
- "Evidence," taught by Professor Charles Nesson;
- "The American Jury," a seminar led by Professor Charles Nesson;
- "Property," taught by Professor Yochai Benkler;
- "Cyberlaw: Difficult Problems" / "Ideas for a Better Internet," taught by Professor Jonathan Zittrain and Elizabeth Stark, a Lecturer in Computer Science at Yale University and an Adjunct Associate Professor at New York University, in conjunction with Stanford Law School;
- A seminar, "Antitrust, Technology, and Innovation," and a first-year reading group, "Identity, Anonymity, and Accountability in an Online World," both taught at Harvard Law School by Professor Phil Malone;
- "Internet and Society: Technologies and Politics of Control," taught at Harvard Extension School by the Berkman Center's Research Director, Rob Faris, and the outgoing Director of the Center's Citizen Media Law Project, David Ardia; and
- "Cyberspace in Court: Law of the Internet," a freshman seminar taught at Harvard College by Professor Phil Malone.

Assistant Director of the Cyberlaw Clinic Christopher Bavitz taught a new seminar on "Music and Digital Media" at HLS during the spring semester 2011. The course explored a variety of legal issues relating to the creation, exploitation, and protection of creative works. The seminar focused on traditional legal regimes, business models, and the ways in which new technologies (particularly digital media and the Internet) have affected legal and business strategies for the distribution and protection of these works. As described below, the class served as a "feeder" course for the Cyberlaw Clinic, and several students from the class enrolled in the Clinic during the 2010–2011 academic year.

As part of the Berkman Center's teaching program, Harvard Law School students participate in the Center's Cyberlaw Clinic (discussed below) in conjunction with substantive courses offered at the Law School. Clinic-affiliated courses last year included:

- “Practical Lawyering in Cyberspace,” co-taught by Clinical Professor and Cyberlaw Clinic Director Phil Malone and Clinical Instructor and Cyberlaw Clinic Assistant Director Christopher Bavitz;
- “Cybercrime,” taught by Clinical Director Phil Malone;
- “Child Exploitation, Pornography, & the Internet,” co-taught by Clinical Instructor and Cyberlaw Clinic Assistant Director Dena Sacco and Lecturer Diane Rosenfeld;
- “Music and Digital Media,” taught by Christopher Bavitz; and
- “Intellectual Property Law: Advanced,” taught by Professor Terry Fisher.

2. The Cyberlaw Clinic

The Berkman Center’s Cyberlaw Clinic engages Harvard Law School students in a variety of real-world litigation, licensing, client counseling, advocacy, and legislative projects and cases, covering a broad spectrum of legal issues. The Cyberlaw Clinic was the first of its kind, and it continues its tradition of innovation in this area. In recent years, the Clinic has grown dramatically in popularity (in terms of numbers of students enrolled and on waitlists), the breadth and complexity of its cases and projects, the types and variety of clients it serves, and the sophistication of its pedagogy and the connections it develops in its students among theory, doctrine, and practice.

During the 2010–2011 academic year, the Clinic enrolled 36 students for a total of 80 credits. Reflecting its great popularity with Harvard Law students, the Clinic had many times that number of student slots on waitlists for enrollment through the Clinic's affiliated HLS courses. The Clinic’s three supervising attorneys managed approximately 4,800 hours of student work during this year. The Clinic also hired five law student summer interns in both 2010 and 2011. The Cyberlaw Clinic consistently has some of the longest waitlists of students wishing to enroll of any Harvard Law School clinic. In order to better meet the enormous demand from students interested in the Clinic, we expect to hire an additional Clinical Instructor for the upcoming academic year.

The Cyberlaw Clinic continued its emphasis on providing students with a broad range of substantive and practice opportunities working with innovative clients on challenging legal issues. Many of the Clinic’s cases and projects fall into a handful of key areas, including: legal counseling on open access, digital copyright, licensing and other contractual issues (especially concerning Creative Commons licenses), and fair use issues; litigation, *amicus* brief writing, and other forms of advocacy to protect online speech; developing online legal resources and advice for citizen journalists; software and music licensing and contract advice; and advocacy for effective but balanced protection of children in the areas of child pornography, “sexting,” and cyberbullying.

Since its inception, a fundamental goal of the Cyberlaw Clinic has been to develop and leverage deep ties linking scholarship and research with legal practice. The Clinic has pursued this goal, in part, through the involvement of leading practitioners in its field; for example, the Clinic has an established relationship with Cooley Godward Kronish LLP, one of the nation’s leading law firms working in the areas of high-technology and high-stakes litigation. This relationship has facilitated important collaborations between the Clinic’s faculty and students and experienced

practitioners from Cooley. In addition, Cooley is in the third of five years of generously helping to support one of the Clinic's supervising attorneys. Cooley's gift and the collaboration with the firm will continue to enable teaching and mentoring of students on a range of litigation, counseling, and transactional/licensing projects and cases.

The Clinic's teaching team brings tremendous practical expertise to the Cyberlaw Clinic and to the Berkman Center as a whole. Clinical Professor Phil Malone, a 20-year veteran of the US Department of Justice (DOJ), has directed the Clinic since 2004. Professor Malone was the senior civil service litigator on the government's antitrust case against Microsoft and helped try the antitrust case against Oracle. The clinical teaching team also includes Clinical Instructor Christopher Bavitz, who spent four years at a law firm and six years in-house in the music industry before joining the Clinic. Rounding out the team is Clinical Instructor Dena Sacco, HLS '93. Prior to returning to HLS, Sacco spent three-and-a-half years at a law firm and over eight years with the DOJ, first as a counsel in the Office of Policy Development and then as the federal prosecutor in Massachusetts with primary responsibility for child exploitation cases.

In addition to the clinical cases and projects described below, Clinic staff organized and participated in a variety of events and outreach to the HLS community and beyond during the 2009–2010 academic year. The Clinic co-presented a fall talk that looked closely at *Cartoon Network, LP v. CSC Holdings, Inc.*, 536 F.3d 121 (2d Cir. 2008), which has enormous implications for timely intellectual property issues related to cloud computing. The event included a discussion between two lawyers closely involved in the case. Clinic staff also addressed issues including intellectual property, speech, privacy, and access to government documents and information at a number of conferences, symposia, and other events, including the Rethink Music (April 2011) and South by Southwest (March 2011) music conferences; the HLS symposium, "The Next Big Thing: Emerging Issues in Entertainment Law" (November 2010); and the Association of Moving Image Archivists / International Association of Sound and Video Archives 2010 Joint Conference (November 2010). They also presented on Privacy, the First Amendment, and "Dotrights" at the ACLU's "Internet and the Law: Contentious Issues and Emerging Solutions conference" (April 2011) and on questions of the copyrightability of the law at a Law.gov conference at HLS in June 2010.

During the past year, the Cyberlaw Clinic continued its ongoing expansion of the number and types of clients it serves, including individuals, small start-ups, nonprofit organizations, professors, and government entities. Simultaneously, the Clinic continued its strategy to increasingly integrate Clinical student representation and legal support with research projects at the Berkman Center. Clinical students provided representation to the following clients, among many others: The Citizen Media Law Project, The Commonwealth of Massachusetts (Information Technology Division), The Massachusetts Trial Court's Special Adviser for Access to Justice Issues, The Global Network Initiative, Herdict Web, Public Radio Exchange, StopBadware, Inc., the United States Attorney's Office for the District of Massachusetts, WGBH, and the Youth and Media Policy Working Group Initiative.

A few prominent examples of cases and projects handled by Clinic students last year include:

(a) Litigation: The Clinic, directly and working in tandem with law firms located throughout the United States, has represented individuals and organizations in connection with pre-litigation disputes and active litigation concerning a wide range of issues, including online speech and intellectual property matters. Of particular note during the 2010–2011 academic year, the Clinic appeared as co-counsel on a Motion to Intervene filed in Massachusetts District Court for Norfolk County and a petition to a Single Justice of the Massachusetts Supreme Court on behalf of OpenCourt.us, a Knight Foundation-funded project of WBUR public radio in Boston. OpenCourt.us offers live streams and audiovisual archives of proceedings in Quincy District Court in Massachusetts, and the motion and petition concerned limitations placed by the District Court on OpenCourt.us's ability to report on proceedings that take place at the courthouse.

(b) Amicus Advocacy: *Amicus* advocacy has become a core part of the Clinic's practice, and the Clinic routinely contributes to several *amicus* briefs each year. During the 2010-2011 academic year, such briefs included the following:

- The Clinic submitted an *amicus* brief in January 2011 in *Glik v. Cuniffe*, No. 10-1764 (1st Cir. January 23, 2011), a case before the First Circuit that concerns the right of individuals to make audiovisual recordings in public places (and, specifically, recordings of on-duty police officers engaged in an arrest). The brief argued that the Massachusetts Wiretap Statute cannot be applied to criminalize recordings where the subjects of those recordings do not reasonably expect their communications to be private. The brief—drafted largely by fall and winter term students—was prepared on behalf of the Citizen Media Law Project and joined by a large and prestigious *amicus* coalition that included Dow Jones & Company, Inc., GateHouse Media, Inc., Globe Newspaper Company, Inc., The Massachusetts Newspaper Publishers Association, Metro Corp., NBC Universal, Inc., New England Newspaper and Press Association, Inc., The New York Times Company, Newspapers of New England, Inc., the Online News Association, and the Reporters Committee for Freedom of the Press. (For reasons that remain unclear, the First Circuit denied the *amici*'s motion for leave to file the brief.)
- The Clinic's *Glik* brief served as a model for a Seventh Circuit brief filed in April 2011 by the Reporters Committee for Freedom of the Press (joined by the Citizen Media Law Project and others) in *American Civil Liberties Union of Illinois v. Alvarez*, No. 11-1286 (7th Cir. April 22, 2011). The case raised issues similar to those raised in Glik, concerning the Illinois Eavesdropping Act and its implications on recording of police officers in public places. The Reporters Committee for Freedom of the Press prepared and filed the *Alvarez* brief with support from a spring 2011 Cyberlaw Clinic student.
- In March 2011, the Clinic filed an *amicus* brief before the Massachusetts Supreme Judicial Court on behalf of the Citizen Media Law Project, joined by Community Newspaper Holdings, Inc., GateHouse Media, Inc., Massachusetts Newspaper Publishers Association, Metro Corp. d/b/a/

Boston Magazine, and New England Newspaper and Press Association, Inc., in *Globe Newspaper Company, Inc. v. Superior Court for County of Norfolk*, No. SJC-10798 (Mass. March 21, 2011). The brief argued that a public right of access to inquest materials allows journalists, bloggers, and other news gatherers to inform citizens on matters of public concern.

During the 2010–2011 academic year, state and federal courts issued at least two decisions in cases in which the Clinic had previously submitted *amicus* briefs:

- In March 2010, the Clinic submitted an *amicus* brief to the Illinois Supreme Court on behalf of the Citizen Media Law Project and other media and advocacy organizations in *Wright Development Group LLC v. Walsh*, No. 08-2783 (Ill. Mar. 3, 2010). In the brief, *amici* urged the court to reject two lower courts' narrow interpretations of Illinois's Anti-SLAPP statute, known as the Citizen Participation Act. The brief argued that a SLAPP defendant should be entitled to appellate review of a lower court ruling denying a motion to dismiss under the Citizen Participation Act, even when the case is subsequently dismissed on other grounds. The brief also argued that the Citizen Participation Act protects statements made to the press at a public forum on an issue of public and governmental concern. The Illinois Supreme Court issued its decision, *Wright Development Group LLC v. Walsh*, 235 Ill. 2d 607 (Ill. 2010), in October 2010, holding that a lower court's ruling depriving plaintiff of remedies under the statute "contradicted the legislature's express finding of public policy in favor of [awarding] attorney fees and costs to the prevailing movants." The opinion, using words that closely mirrored the text of the Clinic's *amicus* brief, went on to hold that "[n]othing in the words 'any act or acts' suggests a requirement of direct appeal to a government official."
- In June 2010, the Clinic prepared a brief to the Second Circuit in *Barclays Capital Inc. v. TheFlyOnTheWall.com*, No. 10-1372-CV (2d Cir. June 21, 2010). The brief, filed on behalf of the Citizen Media Law Project, the Electronic Frontier Foundation, and Public Citizen, argued that the Second Circuit should consider carefully application of the century-old "hot news misappropriation" doctrine. Specifically, *amici* argued (without expressly supporting one side or the other in the case) that the Court should apply First Amendment scrutiny and evaluate how application of the hot news doctrine might curtail speech rights. In June 2011, the Second Circuit issued a decision finding that there was no viable hot news misappropriation tort claim on the facts before the Court due to preemption by the Copyright Act.

(c) Child Protection and Youth Online Safety: The Cyberlaw Clinic has been active in promoting youth online safety through collaborations with advocacy organizations, researchers, and state and federal law enforcement agencies. The Clinic's work in this area has ranged from providing guidance for parents and educators to actively supporting the criminal prosecution of individuals engaged in the creation or

distribution of child pornography or other online conduct that is harmful to children. Representative matters in this area of practice include the following:

- Clinic students continued to provide legal analysis and support to the Berkman Center's Youth and Media Policy Working Group Initiative, following the publication in 2010 of "Sexting: Youth Practices and Legal Implications," available at http://cyber.law.harvard.edu/node/6223. In addition to a continued focus on sexting, this support included analysis of Massachusetts' anti-bullying law and school district model plans, as well as research related to state criminal records systems and sex offender registries.
- Clinic students drafted memoranda for the US Attorney's Office in Boston in child exploitation and other Internet crimes cases, addressing issues relating to victim restitution in child pornography cases and computer search and seizure, among others.
- Clinic students collaborated with Berkman Center Faculty Co-Director and HLS Professor John Palfrey to collect and analyze anti-bullying resources for the John D. and Catherine T. MacArthur Foundation in conjunction with the launch of a digital literacy portal by the federal government, http://www.DigitalLiteracy.gov.

(d) Consumer Protection and Regulatory Compliance: The Cyberlaw Clinic has done a variety of work in the area of consumer protection and regulatory compliance. Notably, the Clinic has continued to serve as counsel on a number of legal issues for StopBadware, an online consumer protection initiative to combat malware which was founded at the Berkman Center, but now fully independent. Clinical students have provided day-to-day advice on legal matters, reviewed and drafted agreements, and responded to legal claims from organizations questioning StopBadware's coverage of alleged malware offered by those organizations.

(e) Intellectual Property: Clinical students addressed a wide range of intellectual property issues during the past year, including the following:

- Advising research and advocacy organizations on open source licensing options for software tools, including addressing questions about what open source licenses would be appropriate to govern code in certain situations and how to responsibly engage in an open source development process while assuring rights issues are addressed.
- Working with a number of prominent public media organizations, including helping one to develop best practices to be applied in addressing rights and other legal issues when archiving news footage online.
- Clinic students were actively involved in the Berkman Center's preparations for the April 2011 Rethink Music conference, put on by Berklee College of Music and MIDEM in association with the Center and Harvard Business School. In connection with the conference, the Center prepared a briefing book, available at http://cyber.law.harvard.edu/publications/2011/Rethinking_Music, which includes pieces written by a wide range of contributors about law and policy

issues relevant to those who create, distribute, and consume music. A spring 2011 Cyberlaw Clinic worked closely with Jay Fialkov, Deputy General Counsel of WGBH, on his contribution to the briefing book, "Music Rights Clearances and Public Media." In addition to compiling materials contributed by others, the Clinic was responsible for preparing a framing paper that serves as a broad overview of the major questions of law and policy relevant to the music industry today. Clinical Instructor Christopher Bavitz worked closely with a Clinic student and an HLS student research assistant to prepare that framing paper and to craft the entire book. The Clinic's work in this area dovetailed with Bavitz's new Music & Digital Media class, and it is expected that matters relating to music and other content rights will remain a core component of the Clinic's practice.

(f) Media Law and Online Speech: The Cyberlaw Clinic has been very active in addressing a broad spectrum of legal issues faced by web-based media, including bloggers, website commenters, and other online speakers. The Clinic has provided advice and counsel in matters involving First Amendment issues, defamation claims, immunity under Section 230 of the Communications Decency Act, and anonymous speech online. Most notably, the Clinic continued its long-running collaboration with the Citizen Media Law Project (CMLP), a joint initiative that the Clinic helped to co-found in conjunction with the Center for Citizen Media that seeks to provide legal training and resources for individuals and organizations involved in citizen media. CMLP supports research and advocacy on free speech, newsgathering, intellectual property, and other legal issues related to citizen media. As noted above, the Clinic collaborated closely with CMLP on several *amicus* briefs during the past year, and Clinic students were actively involved in a number of CMLP initiatives relating to promotion of citizen journalism. The Clinic also represented several Knight-funded news startups and projects emerging from MIT's Center for Future Civic Media (now the Center for Civic Media) on issues relevant to digital news and information gathering and dissemination.

(g) Filtering, Surveillance, and Censorship: Filtering, surveillance, and censorship of online activities are problems in countries throughout the world. The Cyberlaw Clinic has worked with a number of entities at the forefront of documenting and responding to these issues globally. During the past year, the Clinic continued to provide legal support to the Global Network Initiative, a multi-stakeholder group of companies, civil society organizations (including human rights and press freedom groups), investors, and academics that have adopted a collaborative approach to protecting and advancing freedom of expression in the Information and Communications Technology (ICT) sector.

(h) Access to Justice: Since the spring of 2010, the Clinic has been assisting the Massachusetts Trial Court's Special Adviser for Access to Justice Issues with research, advice, strategic planning, and best practices for using technology to pursue "access to justice" initiatives throughout the Commonwealth, identifying ways in which technology can help to assist *pro se* and other litigants in their dealings with the court system. In July 2010, the Clinic provided the Trial Court with a preliminary report containing a major review of the existing literature, similar initiatives throughout the country, and effective use of available technologies. In November

2010, Clinic students organized and led a workshop on Innovative Web Content for Access to Justice for the Massachusetts Access to Justice Commission, Website and Technology Working Group. In addition, Professor Malone leveraged the Clinic's work in this area in two presentations, *Partnering with the Courts on Technology-Based Initiatives* at the National Meeting of State Access to Justice Chairs at ABA Equal Justice Conference in May 2011 and *Transformative Technology: Best Practices for Synthesizing Technology for Teaching with Technology for Enhancing Access to Justice,* at the Society of American Law Teachers Conference, "Teaching in a Transformative Era: The Law School of the Future," in December 2010.

3. Participation of Students in Program Activities

In addition to the Cyberlaw Clinic and course offerings, we build relationships with students through research assistant positions, summer internships, and weekly events. As with years past, this year we worked with nearly 100 students directly through Berkman project research, and countless others participated formally and informally across our program areas.

At the beginning of the fall semester we hosted an open house in Pound Hall. Over 300 people came to the event, and we were able to connect with students, faculty, and the public at large to talk about Berkman opportunities and substance.

This interest and involvement was sustained into the fall and beyond. Building on existing relationships and connections made at the open house, students played extensive roles in the substantive work of most of the Center's projects, performing research, helping to design and draft legal and other research papers, conducting literature reviews, composing blog posts for project websites, conducting outreach and helping to build outside relationships and contacts, and writing code for research platforms and tools.

The Berkman Center's embrace of student participation has also inspired students to lead events and research of their own, outside the Center. Many students working with the Berkman Center share its entrepreneurial spirit.

Selected examples and outputs of students' dynamic Berkman Center engagement:

- For the Rethink Music conference, the comprehensive framing paper about the music industry's current landscape was researched and drafted with research assistant and HLS 2L Joey Seiler with Cyberlaw Clinic student Adam Gottesfeld.
- We have continued our support of the research and design efforts of Jesse Shapins, a Ph.D. candidate at the Harvard Graduate School of Design, and James Burns, who received his Ph.D. this year from Harvard's Department of Economics. Their longstanding work in the digital humanities has, under the leadership of Professor Jeffrey Schnapp and with the input of other academics and practitioners, developed into the metaLAB (at) Harvard. More information on the metaLAB efforts can be found in the Research and Scholarship section below.

- Berkman co-sponsored the 2011 Students for Free Culture Conference, held in New York City. Summer 2010 intern Adi Kamdar, with whom we have maintained a relationship, was one of the lead organizers for the conference.
- TurboVote, a nonpartisan, online voter registration tool, was launched and developed by Seth Flaxman, 2011 Harvard Kennedy School graduate and 2010 Berkman summer intern. The project was recently highlighted at a Berkman Tuesday Luncheon series talk.

The Berkman Center's summer internship program has become one of the most sought-after summer positions for students engaging in Internet & Society studies and a training ground for future colleagues and collaborators. Although last year's 400 applicants were a challenge to narrow down, this summer we were faced with over 700 impressive applications from over 50 countries and countless fine educational institutions.

After a rigorous selection process based on the needs of our projects and the skills and interests of the applicants, Berkman hosted 31 full time summer interns, ranging from high school students to Ph.D. candidates, from schools around the world. Interns were integrated into our project teams and contributed meaningful research while participating in other summer program activities, such as lectures and reading groups with our faculty and fellows, and working on cross-project multi-media teams.

Our summer intern class included talented students from Harvard College, Harvard Law School, Amsterdam University College, Brown University, Carnegie Mellon University, Columbia University, Duke University, Erasmus University Rotterdam, Georgetown University, Grimsley High School, Michigan State University, New York University School of Law, Princeton University, Swarthmore College, The International Max Planck Research School for Competition and Innovation, University of Basel, University of California Davis School of Law, University of Kentucky Law School, University of Michigan, University of Rochester, and the University of Texas at Austin.

4. Curricula and Materials Development

Copyright Course Materials. Since Fall 2010, the syllabus and materials for Professor Terry Fisher's Harvard Law School "Copyright" course have been entirely online and made available to the public. In addition to online resources, the syllabus links to "maps" which contain Professor Fisher's lecture notes for all of his courses on intellectual property law. The four maps and collateral slide presentations contain overviews of the principal fields of intellectual property law, including copyright, patent, and trademark law, and intellectual property theory; June Casey of the Harvard Law School Library staff was enormously helpful in annotating them. [http://cyber.law.harvard.edu/people/tfisher/Copyright%20Syllabus%20Fall%202010.htm; also see http://cyber.law.harvard.edu/people/tfisher/IP/IP%20Maps.htm]

H2O. With support from and in collaboration with the Harvard Law School Library, the Berkman Center began revamping a set of classroom tools under the H2O banner in mid-2010. These tools, initially developed several years ago, are now being recoded and integrated to create a suite of classroom tools. Much focus has been put on Playlists, a platform for collections of online content that are easily shared and remixed (ideal for use as an online course syllabus), and

Collage, an application that allows a seed document to be annotated with various layers and notes. Professor Zittrain's fall 2010 Torts class used a set of blended materials from both a traditional casebook and the H2O platform. Also in the fall, Professor Zittrain and project manager Laura Miyakawa led a Berkman luncheon discussion that showcased H2O's features. Over the past year, we have developed course materials for Professor Lessig and Professor Nesson. Additionally, Professor Zittrain offered a video contribution to the Harvard Law School Library's "The Future is Now" conference discussing some of the concepts behind the tool set's development. We are currently improving the user interface and interactivity of the site and completing materials for Professor Zittrain's fall 2011 Torts class. [http://cyber.law.harvard.edu/research/h2o]

B. Law Reform, Impact and Advocacy

In December 2009, we launched the **Online Media Legal Network** (OMLN), which emerged in response to the issues identified by the Citizen Media Law Project. OMLN is a legal referral network that seeks to provide free and reduced-fee legal services to qualified online media ventures and other digital media creators. OMLN supports promising ventures and innovative thinkers in online and digital media by providing access to legal help that would otherwise be unavailable. Network lawyers assist qualifying clients with a broad range of legal issues, including business formation and governance, copyright licensing and fair use, access to government information, pre-publication review of content, and representation in litigation. For their part, participants enjoy the unique opportunity to serve and learn from some of the most exciting actors and issues in the online media space.

OMLN currently has more than 200 participating firms, individual lawyers, and law school clinics, with practices in 41 states. Law schools with participating clinics include Harvard Law School, Florida International University College of Law, Fordham University School of Law, UC Berkeley, University of San Francisco School of Law, University of Southern California Gould School of Law, University of Pennsylvania Law School, University of Washington School of Law, and West Virginia University College of Law.

Since its launch, OMLN has helped more than 135 clients on more than 270 matters. The network has assisted clients with a variety of issues, including defense of content liability litigation, business and non-profit formation, subpoena defense, prepublication review, preparation of licenses and independent contractor agreements, media insurance coverage, auditing and drafting of terms and conditions for websites, and intellectual property counseling and registration. [http://www.omln.org/]

Input to ICANN Accountability and Transparency Review Process. In August 2010, faculty and researchers at the Berkman Center, in partnership with colleagues and partners from Harvard Law School and University of St. Gallen and led by Executive Director Urs Gasser, initiated an independent, exploratory study analyzing ICANN's decision-making processes and communications with its stakeholders. The study focused on developing a framework and recommendations for understanding and improving ICANN's accountability and transparency.

The study was undertaken as part of ICANN's first Accountability and Transparency Review. In November 2010, the Berkman team's independent report was publicly posted alongside ICANN's Accountability and Transparency Review Team's Draft Proposed Recommendations for Public Comment on the ICANN website. In February 2011, the Berkman Center published the research materials, resources, and other inputs that were gathered in the course of the production of its final report. [http://cyber.law.harvard.edu/research/icann_study]

C. Research and Scholarship

1. New Projects

The **Digital Public Library of America** (DPLA) planning initiative, established in December 2010 and led by Berkman Faculty Co-Director John Palfrey, is a new project that is convening stakeholders from the educational community, public and research libraries, cultural organizations, state and local government, publishers, authors, and private industry in a series of meetings, workshops, and online discussions to examine strategies for improving public access to comprehensive online resources. The ultimate goal of the planning initiative is to design a comprehensive workplan and technical proof of concept for a large-scale Digital Public Library of America. The project, managed by Berkman Fellow Maura Marx and project coordinator Rebekah Heacock, has established a 1000-member discussion listserv and public wiki to collect research and community input; coordinated initial research on a series of related issues; and convened over 100 participants from public and research libraries, government agencies, publishers, and private industry at a series of three workshops in March, May, and June 2011 to discuss the content and scope of the DPLA; global interoperability and linked data; and the key technical principles upon which the DPLA should be built. The May and June workshops were supported by grants from the Open Society Foundations and the National Endowment for the Humanities, respectively.

A Beta Sprint launched in May 2011 encourages independent actors to develop initial models for the DPLA for review by the Steering Committee and presentation at the first plenary meeting in October 2011. Over 60 statements of interest were received by the June 15, 2011 deadline; the DPLA Secretariat is developing resources, including a Beta Sprint listserv and a special section of the wiki, to encourage collaboration among sprinters as they build their betas. [http://cyber.law.harvard.edu/research/dpla]

metaLAB. In February, the Berkman Center began to incubate the metaLAB (at) Harvard, an experimental research unit dedicated to charting innovative scenarios for the future of knowledge creation and dissemination in the arts, media, and humanities. metaLAB was founded by Professor Jeffrey Schnapp, a Berkman Fellow since 2009, and a core group of longstanding Berkman collaborators: James Burns, Kara Oehler, and Jesse Shapins.

The lab is founded on the belief that some of the key research challenges and opportunities of the new millennium, not to mention crucial questions about experience in a connected world—regarding the boundaries of culture and nature, democracy and social justice—transcend divisions between the arts, humanities, and sciences; between the academy, industry, and the public sphere; and between theoretical and applied knowledge. Less a unified structure than a

cluster of experiments, metaLAB (at) Harvard provides an institutional home for Harvard's digital art, design, and humanities communities. Beyond the founders group, the lab has developed a team of researchers that includes Harvard College undergraduates, FAS and GSD graduate students, Harvard Library staff, Berkman Fellows, and independent designers and developers. A group of Senior Researchers includes John Palfrey and Jake Shapiro, as well as University Professor Peter Galison and Professor K. Michael Hays, who is also the Associate Dean of Academic Affairs at the GSD.

One of the group's major projects has been **extraMUROS**, a unique collaboration between metaLAB(at)Harvard, Frances Loeb Library, and a team of independent designers and developers. The project received a grant from the Harvard Library Lab; the prototype tools being developed are also being submitted to the Digital Public Library of America Beta Sprint. extraMUROS builds on top of **Zeega**, an open-source HTML5 platform for creating interactive documentaries and inventing new forms of storytelling. In June, Zeega was awarded a prestigious Knight News Challenge award to further develop the open-source toolkit to make it easy for anyone to collaboratively produce, curate, and publish participatory multimedia projects on web, tablet, and mobile devices.

The metaLAB team also collaborated with Berkman Faculty Co-Director John Palfrey on a successful grant for the **Augmented Harvard** project from the Provostial Funds for Arts & Humanities. The effort will result in an open-source iPhone/iPad application that allows faculty, students, curators, and the public to link Harvard art exhibitions to other spaces and objects across the University, and to see otherwise invisible features of the campus landscape such as long-ago demolished structures, alternative architectural plans, and inaccessible archives as they explore the campus core. [http://metalab.harvard.edu/]

2. Ongoing Projects

Blogging Common, supported by the MacArthur Foundation, seeks to capture and present the spirit and wisdom of the blogosphere by surveying bloggers around the globe. In January 2011, Blogging Common launched a survey of 2000 English-language bloggers, half selected from a large random pool and half from a list of highly-linked bloggers. Over 20% of bloggers who received the survey responded. In April 2011, Blogging Common began translating the survey into Russian and assembling a sample of 2000 Russian-language bloggers; translation into Arabic began in June 2011. [http://bloggingcommon.org/]

Broadband policy. Following up on the 2010 *Next Generation Connectivity* report to the Federal Communications Commission, the Broadband team, led by Berkman Center Faculty Co-Director Yochai Benkler, has expanded and continued our data-driven approach. In early 2011, the team brought on Broadband Fellow Julio Ortiz and began work with HLS Library Statistician Travis Coan to analyze data made public by the National Telecommunications and Information Administration (NTIA) in the National Broadband Map. We continue to vet this data and explore the impact of competition on price and conditions that lead to successful municipal fiber networks. [http://cyber.law.harvard.edu/research/broadband_review]

Chilling Effects. Founded by Fellow Wendy Seltzer in 2001 and now a collaboration with the Electronic Frontier Foundation (EFF) and law school clinics across the country, Chilling Effects provides an online clearinghouse analyzing cease-and-desist notices sent to Internet users and tracking their impact on online expression. The site now catalogs more than 50,000 cease-and-desist notices, counting submissions from Twitter, Google, Digg, Quora, and other bulk and individual submitters. As a research platform and resource, Chilling Effects has been cited in more than 25 scholarly works. [http://cyber.law.harvard.edu/research/chillingeffects]

Circumvention. The circumvention project focused on improving our understanding of the functionality and prevalence of tools designed to get around government-mandated Internet filtering and to preserve anonymity online. The project, supported by the Internews Network, concluded in June 2011. The outputs of the project included research into usage patterns of circumvention tools around the world drawing on publicly available web metrics, interviews and a survey of bloggers, a technical evaluation of the various tools, a survey of VPN providers, and an inventory of open proxies. The project also engaged in field-building in the area of circumvention research, hosting meetings with researchers and tool developers. [http://cyber.law.harvard.edu/research/circumvention]

Cloud Computing Initiative. Under the leadership of Executive Director Urs Gasser in close collaboration with project manager Caroline Nolan, Berkman Fellow Oliver Goodenough, and project coordinator David O'Brien, the cloud computing initiative is a research effort that has grown out of the Berkman Center's Law Lab project (see description below) and is focused on developing research on emerging issues, law, policy, and current trends related to cloud computing. In addition to our second workshop on Interoperability and the Cloud, hosted in Washington, DC in January 2011 with over 25 representatives from industry, academia, civil society, and government, including Vivek Kundra, we have been assembling a set of current use cases that illustrate emerging challenges presented by the emerging cloud environment. With partners from Keio University, where Gasser has been appointed guest professor, the NEXA Center, and the University of St. Gallen, we have been developing a set of best practices related to data privacy, security, portability, and interoperability in the cloud. This spring, we established a wiki-base repository information on cloud computing, which will feed into and support a variety of Berkman efforts on a variety of relevant legal issues; we are also working on an associated white paper, which will be completed in November 2011. [http://cyber.law.harvard.edu/node/6082]

Cooperation. The 2010–2011 year saw a number of research efforts that grew out of a two-year Ford Foundation funded project that focused on mapping current practices in commons-based collaboration and human cooperation. The Law Lab also supported this work (see description below). Berkman Center Faculty Co-Director Yochai Benkler and a number of researchers continued a series of empirical studies into the design, mechanisms, and impacts of online cooperation, and a series of ongoing studies investigating the dynamics and effects of peer production in several different settings. One study looks at Wikipedia to analyze whether or not the distribution of awards among contributors to the online encyclopedia affects contribution patterns over time. Another project examines the relationship between peer production and the success of venture-funded Internet startups during 2001–2008. This project is currently in the final stages of data collection. This line of research will culminate in a study of a large sample of

Wiki communities to test hypotheses surrounding the effects of norm creation, rule enforcement, and participation inequalities on Wiki success.
[http://cyber.law.harvard.edu/research/cooperation]

Copyright for Librarians. Initated by Professor Terry Fisher in collaboration with international nonprofit eIFL.net, "Copyright for Librarians" has been periodically updated since its March 2010 launch, and subsequently translated into Serbian, Chinese, Arabic, Russian, French, and Polish by instructors in each country. The course materials aim to inform librarians about copyright law in general, as well as the aspects of copyright law that most affect libraries, especially those in developing and transition countries. The curriculum includes nine modules organized into five different levels that can be used as the basis for a self-taught course, a traditional classroom-based course, or as a distance-learning course.
[http://cyber.law.harvard.edu/copyrightforlibrarians/]

Cybersecurity. During 2010–2011, the Berkman Center engaged in a number of activities related to cybersecurity. Under the guidance of Berkman Center Faculty Co-Director Professor Jack Goldsmith, we have been developing a wiki that houses and annotates cybersecurity resources, such as academic and private sector whitepapers, articles, and other literature; the wiki will be made publicly available in September 2011. In October 2010, we convened a group of HLS faculty to consider ideas for developing our collective knowledge, teaching, and research on cybersecurity issues. In May 2011, we co-hosted a workshop with the Radcliffe Institute to explore issues related to cybersecurity and identify opportunities for multidisciplinary collaboration, research, and communication across the Harvard community. Among many next steps, workshop participants recommended creating a teaching case based upon the leak of diplomatic cables to WikiLeaks. The Berkman Team is taking the lead on this effort and will work with Radcliffe to develop a series of follow-up workshops on cybersecurity during the 2011–2012 academic year, ideally involving Harvard faculty and select participants from business, government, and other sectors.

The **Digital Media Law Project** (DMLP), formerly the Citizen Media Law Project, works to ensure that individuals and organizations involved in online journalism and digital media have access to the legal resources, education, and help that they need to thrive. The DMLP, which launched in May 2007 as the Citizen Media Law Project, focuses its work on three broad areas: legal education and training, litigation and *pro bono* legal services, and the collection and analysis of legal threats facing online speakers and publishers. With funding from the Open Society Foundations, Knight Foundation, and Harnisch Foundation, Fellows David Ardia and Jeff Hermes and intake attorney Arthur Bright accomplished a great deal this year, including:

> ***Organizing a Media Law Conference at Kennesaw State University*:** DMLP and the Center for Sustainable Journalism organized and hosted a one-day symposium and CLE program entitled "Media Law in the Digital Age: The Rules Have Changed, Have You?" The event covered new developments in media law and addressed some of the most pressing legal issues facing online media. More than 125 people attended the conference, which brought together a mix of lawyers, academics, journalists, and students.

***Publishing and Updating the Project's Legal Guide Materials*:** DMLP continued to publish legal guide materials on a range of topics relevant to digital media creators and other online publishers. This included publishing a detailed white paper on the legal issues arising from news aggregation as well as several new sections in our legal guide, including sections addressing: how to find and evaluate media liability insurance (including an interactive Q&A tool); how to form an L3C; live-blogging and tweeting from the courthouse; and FTC blogger rules regarding compensated endorsements. DMLP also maintained an active blog, written by project staff and outside contributors, that addresses legal and other developments affecting citizen media creators and other online publishers.

Maintaining the Project's Legal Threats Database: DMLP continued to maintain its Legal Threats Database, a catalog of the growing number of lawsuits, cease-and-desist letters, and other legal challenges faced by those engaging in online speech. As of July 2011, the database contained 914 published entries from 41 states and 12 countries. Each entry consists of a plain-language description of the case or threat and links to blog or press coverage. Most entries also contain the underlying documents, including copies of cease-and-desist letters, lawsuit complaints, legal briefs, and court orders.

Amicus Efforts: With the invaluable assistance of the Cyberlaw Clinic, DMLP helped organize media coalitions and contributed to a number of *amicus curiae* briefs on topics of importance to online media in the United States Supreme Court, federal courts of appeal, and various state courts. Topics included First Amendment protection for anonymous speech online, the application of the Massachusetts anti-SLAPP statute to members of the news media and professional bloggers, constitutional limitations on the "hot news" misappropriation doctrine, First Amendment protection for audiovisual recording in public places, and the public right of access to inquest materials. [http://cyber.law.harvard.edu/research/citmedialaw]

The **Distributed Denial of Service** (DDoS) project carried out research to improve our understanding of the prevalence and impact of DDoS attacks on independent media and human rights sites across the web. Supported by the Open Society Institute, Berkman Center researchers surveyed organizations that are likely targets of DDoS attacks in order to catalogue the incidence and frequency of attacks. Follow-up interviews with organizations that were subject to DDoS attacks addressed how these organizations responded and adapted to these attacks. Berkman hosted a working meeting involving organizations targeted by DDoS attacks, technical experts, and human rights organizations to propose and evaluate solutions to these attacks. A final report issued in December 2010 described the research findings and laid out a set of recommendations for organizations and funders to address the challenges of DDoS attacks. [http://cyber.law.harvard.edu/research/ddos]

Global Network Initiative. During 2010–2011, the Berkman Center continued to build on its long engagement with the Global Network Initiative (GNI), a multi-stakeholder coalition comprised of technology companies, investors, academics, and rights groups focused on advancing and protecting online free expression and privacy in the ICT sector. The Berkman Center has played a critical role in supporting the GNI's organizational development as it

strengthens and expands its global reach, community, message, and efficacy—all essential attributes of a successful and sustainable organization. Since the GNI's formal launch in 2008, our team, led by Managing Director Colin Maclay and project manager Caroline Nolan, has worked closely with the Executive Director to drive research, learning, and policy engagement on GNI issues and within the GNI; support companies in their implementation efforts; and strengthen the voice and contributions of the GNI to global conversation on the role and impact of ICT companies. The Berkman team has supported these objectives through Board service, including representation on all board sub-committees, including as co-chairs of the Policy and Learning committee. We have also conducted and presented research on a variety of emerging issues, including account deactivation and content removal, human rights risk assessments in the ICT space, and the impact of Arab Spring, among many others. With generous funding from the Bradley Foundation, Berkman will continue to be active in the GNI process by supporting its ongoing development and evolution and in learning from the GNI as an innovative digital institution that seeks to address gaps where law and policy are ill-suited. [http://cyber.law.harvard.edu/research/principles]

Herdict Web. Herdict Web, brainchild of Berkman Center Faculty Co-Director Jonathan Zittrain and managed by Berkman staff member Laura Miyakawa, continued to grow in its second year. Herdict—a portmanteau that means "the verdict of the herd"—is the only project devoted to globally collecting and freely disseminating real-time information about Internet filtering, denial of service attacks, and other blockages. It enjoys diverse and enthusiastic support, even though it has not been widely marketed and is still in beta. Working with the Omidyar Network, we have made tremendous progress over the past year. Our first priority was to deepen our reach through existing channels. We sought to make Herdict's proof of concept easier to use for Internet users at large, to make its data available as flexibly and meaningfully as possible, and to spread the word about it in a productively modest way to thought leaders around the world. We are committed to expanding the sources through which Herdict receives reports. This has included creating new ways to report (via Twitter, email, a Chrome web browser extension, and an iPhone app) and developing partnerships that can provide additional sources of inaccessibility data.

With our focus on improving the user experience and data quality, and without a pronounced media campaign, Herdict has still garnered extensive media attention, especially around individual instances of blocking. For example, amid Egyptian protests this spring, frequent government shutdowns of specific sites and connectivity in general led to many media mentions for Herdict. On January 25, rumors that Twitter.com had been blocked in Egypt resulted in @TwitterGlobalPR tweeting "To see where Twitter.com is blocked (or not), go to @herdictreport. For a view on Egypt today, see: http://t.co/UArh10v [Herdict reports for Twitter from Egypt]". Shortly thereafter, Herdict was included by pieces from Reuters, the AFP, Businessweek, CNET, and PC Magazine. [http://cyber.law.harvard.edu/research/herdict]

ICTs in Crisis and Conflict. The Berkman Center is working with the ICT4Peace Foundation and the Technologies & International Development Lab at Georgia Tech to explore ICTs in Crisis and Conflict. The group published "Peacebuilding in the Information Age: Sifting Hype from Reality," the first in a series of publications that target policymakers and examine ICTs in conflict prevention, peacebuilding, peacekeeping, and crisis response. Building on these

initial efforts to bring different communities together, Berkman hosted a series of related conversations, ranging from an examination of UN Global Pulse and ongoing exchanges with Crisis Commons to a strategic brainstorming that convened diverse participants from the Harvard Humanitarian Institute, Global Voices, Ushahidi, the Georgia Institute of Technology, and elsewhere to identify gaps in practice and understanding around crisis response and management and associated areas for cooperation. The tremendous excitement over the promise of ICTs in grave and pivotal situations is only matched by our incipient understanding of the actual characteristics of ICTs in peacebuilding contexts, but through this multi-disciplinary and multi-sectoral collaboration, we hope to develop understandings that help ICTs to reach their potential for positive impact.

Impact of the Internet on Russian Politics, Media, and Society. This year, the Internet & Democracy project, coordinated by Berkman project manager Bruce Etling, continued its focus on an in-depth investigation of the role of the Internet in Russian society. This study, funded by the MacArthur Foundation, includes a number of interrelated areas of inquiry that contribute to and draw upon the Russian Internet, including the Russian blogosphere, Twitter, and the online media ecology. In addition to investigating a number of core Internet and political communication questions, a key goal for the project is to test, refine, and integrate various methodological approaches to the study of the Internet, including: 1) social network analysis; 2) textual analysis of Russian online news content and blogs with Media Cloud, a text aggregation, indexing, and analysis tool; 3) textual and link analysis of Twitter; and 4) a scientifically rigorous online survey of Russian bloggers.

This year the project published a major study on the political and social mobilization in the Russian blogosphere, which was released at an event with the US Institute of Peace in Washington, DC, with leading academics and Russian blogger Alexey Navalny as respondents. The paper had excellent publicity in the Russian online and offline media, receiving coverage in most major Russian news outlets. The paper was translated into Russian and distributed at a major Russian new media conference. The Russian instance of Media Cloud is collecting and analyzing data from tens of thousands of online sources, and researchers have begun to share first outputs that compare various sources in the Russian media ecosystem. The project has collected millions of Russian language tweets from hundreds of thousands of users and is now parsing the Twitter network using social network and text analysis methods. The project's online survey of bloggers will be carried out in September 2011 and serve as another comparative point. A key focus going forward is to use the project's entire tool kit to study social and political mobilization across the entire online media space in Russia.
[http://cyber.law.harvard.edu/research/russia]

Interoperability. This spring, Urs Gasser and John Palfrey finalized the draft manuscript for their book *Interoperability: The Promise and Perils of Highly Interconnected Systems*, which is slated for release in spring 2012. The book is inspired by their 2005 study and paper—"Breaking Down Digital Barriers: When and How Information and ICT Interoperability Drives Innovation"—which examined the relationship between interoperability and innovation in the ICT environment. The book builds a theory of interoperability, and then illustrates how that theory works and why interoperability is relevant for consumers, companies, governments, and the public. In addition to writing the book, the authors developed a series of case studies that

focus on lessons learned from sectors where interoperability is critical, such as transportation, currency markets, and energy. Each case study explores the roles of law, policy, technology, market forces (e.g., innovation and economic incentives), and stakeholders, and how each of these can drive or inhibit interoperability. The interoperability team is also working to develop a set of associated resources online, including a wiki, blog, and student publications. [http://cyber.law.harvard.edu/interop/]

Law Lab. Founded in 2008, and led by Yochai Benkler, John Clippinger, Urs Gasser, Oliver Goodenough, and project manager Caroline Nolan, the Law Lab promotes research and application development to help law facilitate and accelerate innovation, entrepreneurship, and new forms of wealth creation. Over the course of this multi-year project, the Law Lab team has initiated a broad range of activities across a number of interacting fields of study. Primary efforts have centered on exploratory research, application development, and dissemination, including intellectual outreach and capacity-building, in three broad zones: Open Governance Platform for Entrepreneurship and Innovation; Digital Institutions for application in legal and business practice; and an Experimental and Observational Platform that forms the basis for multi-disciplinary research within our sphere of economic behavior and beyond.

Select research achievements in 2010–2011 included the continuation of a series of empirical studies into the design, mechanisms, and impacts of online cooperation, including analyses investigating the dynamics and effects of peer production in several different settings; work on the design and function of digital institutions in the context of cloud computing and the Internet of Things; and a number of writings related to Educating the Digital Lawyer. In the zone of application development, we finalized the beta version of an open-source Digital LLC tool, which provides a platform for entrepreneurs to create virtual LLCs and virtual corporations, which can achieve full legal status and exist entirely in digital form. We also released the Senegal Law Wiki, a pilot aimed at exploring the use of the web to provide access to legal materials in developing countries. In intellectual outreach and capacity-building, we participated in and hosted a number of related events and workshops, including a workshop in January 2011 related to our series on legal, regulatory, and policy issues regarding cloud computing. Led by Urs Gasser, we worked with partners at Keio University in Japan to coordinate a session on legal issues raised by the Internet of Things at a conference in Tokyo; we also worked with Keio University and the NEXA Center in Torino on related research. [http://lawlab.org]

Media Cloud is an open source, open data platform that allows researchers to answer complex quantitative questions about the content of online media. Using Media Cloud, academic researchers, journalism critics, and interested citizens can examine what media sources cover which stories, what language different media outlets use in conjunction with different stories, and how stories spread from one media outlet to another. For the past year, with the generous support of the Ford and MacArthur Foundations, work on Media Cloud has focused on release of the public website where researchers and media analysts can conduct their own basic searches, as well as a team blog where the Media Cloud team posts early research results and weekly media analysis. The team also worked over the last year to improve the stability and efficiency of the tool. The Media Cloud team has worked closely with Berkman's Russia Project on Russian localization. Media Cloud is now collecting over 14,000 feeds from Russian blogs, top traditional and online newspapers, Russian government websites, and Russian TV. Researchers

have begun to post early results on the Media Cloud blog and use the tool to compliment the ongoing research on Russian blogs, Twitter, and blogger surveys. [http://mediacloud.org]

The **Mobile Giving Study**, a partnership with the mGive Foundation and the Pew Research Center's Internet & American Life Project, was established in January 2011 and is supported by the Knight Foundation. This project examines the impact of new digital tools on charitable giving, using mobile giving after the 2010 Haiti earthquake as a case study. The group has drafted a survey, which will be sent to 1000 randomly selected donors to the mGive Text Haiti campaign. The study has also created clusters of key words, phrases, and links relevant to the campaign, to mobile giving, and to charitable giving in general. These clusters will be used to create a map that explores how the campaigns spread within social media. A literature review of prior research on charitable giving, civic engagement, and social media, conducted in early 2011, helped support these efforts.

The **OpenNet Initiative** (ONI), supported by the MacArthur Foundation and Google, continues to identify and document Internet filtering and surveillance. The ONI has actively produced a number of reports in the past year on, among other things, filtering by Microsoft's Bing search engine of keywords related to sex and LGBT issues across the Arab world, various mechanisms of content control on privately owned platforms, and the use of Western filtering tools and services by governments in the Middle East. In addition to these reports, the ONI has established MENA Net Watch, a collection of special reports, blog posts, and news articles documenting current trends in information controls in the Middle East and North Africa.

The ONI is currently developing a new system that will standardize the format in which previous testing data is stored and in which future data is made available. The new system, called Internet Censorship Investigator (ICI), will allow for systematic longitudinal analysis of ONI data and will provide a robust and consistent structure for collecting, storing, and sharing data. The ONI is also working with a number of related projects across the Berkman Center to develop an online platform that will enable users to compare content controls, Internet infrastructure and access, and various aspects of online communities across countries, regions, languages, and ISPs. This system, called **Internet Monitor**, will integrate data from the ONI, Herdict, Arbor Networks, StopBadware, Blogging Common, and Morningside Analytics; Berkman research on distributed denial of service attacks, circumvention, and surveillance; information from Berkman's detailed case studies of the Iranian, Arabic, and Russian blogospheres; and technical data on autonomous system networks and traffic, Internet penetration and access, broadband access, and demographics. [http://cyber.law.harvard.edu/research/opennet]

In the spring of 2011, the Berkman Center conducted a **survey of Internet safety and security practices** among bloggers in the Middle East and North Africa. This survey, supported by the Institute for War and Peace Reporting, asked bloggers about their views and experiences with respect to online safety in the region. Its timing coincided with the Arab spring, a period of increased online information shaping, events-based blocking, and counter-control activities. The results will be used to help plan workshops on online safety in the region. Survey results were published in August 2011. [http://cyber.law.harvard.edu/node/6973]

Led by John Palfrey and Urs Gasser in close collaboration with Berkman Fellow Sandra Cortesi, the **Youth and Media project** at the Berkman Center for Internet & Society at Harvard University encompasses an array of research, advocacy, and development initiatives around youth and technology. By understanding young people's interactions with digital media such as the Internet, cell phones, and video games, we seek to address the issues their practices raise, learn how to harness the opportunities their digital fluency presents, and shape our regulatory and educational frameworks in a way that advances the public interest. [http://cyber.law.harvard.edu/research/youthandmedia]

During the past academic year the activities of the Youth and Media team focused mainly on three projects:

- The **Youth and Media Lab**, established in January 2011, is a youth-driven research and development lab for media literacy, information literacy, and digital empowerment. Goals include increasing youth participation in the formation of research agendas and promoting innovation in digital learning. Activities focus on exploratory research, curriculum building, tool development and testing, and peer teaching and learning. Since its incorporation, the Youth and Media Lab team has engaged in an extensive literature review on information quality and conducted a series of focus group interviews on the ways in which young users search, evaluate, and interact with information, knowledge, and entertainment. Additionally, we started to develop and test educational modules designed for both formal and informal learning settings in collaboration with partners such as Geanne Rosenberg of Baruch College and youth media organizations such as Press Pass TV, The LAMP, and Millennial Youth magazine. An important part of the Lab moving forward is the formation of a youth ambassador program, a small yet diverse group of talented and dedicated students that engage proactively with multifaceted online challenges and opportunities. Coached by Berkman mentors, the young members of the Lab are trained to engage kids in their home towns and school districts on various online youth issues using some of the highly effective peer-learning strategies identified in previous youth-related research.
  [http://cyber.law.harvard.edu/research/youthandmedia/lab]
- In the past academic year, the **Youth and Media Policy Working Group Initiative** continued to work towards policy recommendations for youth interaction with digital media. Led by John Palfrey, danah boyd, and Urs Gasser, the Youth and Media team explored policy issues that fall within three substantive clusters emerging from youth's information and communication technology practices: Risky Behaviors and Online Safety; Youth, Privacy and Reputation; and Information Quality. In each of these clusters, we mapped and analyzed key policy aspects that deserve attention by private and public policy-makers, summarized the current state of knowledge and research, identified key policy considerations, and, to the greatest extent possible, made specific policy recommendations. Our intended audience included policymakers in both the public and private sectors. We held a series of events, produced a range of publications related to the research and its impact on policy, and contributed to shaping public discourse through the media and other public appearances.
  [http://cyber.law.harvard.edu/research/youthandmedia/policy]

- The **Youth in Developing Countries** project has been conducted in close collaboration with UNICEF's Youth Section and addresses online child safety issues in developing nations. Building on an exploratory study published last year, the Berkman team collaborated with the Digital Media and Learning (DML) Research Hub (supported by the MacArthur Foundation) and hosted a DML Research Hub Working Group aimed at further exploring safety issues related to the use of digital technologies (including mobile phones) in the developing world. The working group made a significant short-term contribution to research and practice by collecting, organizing, and providing public access to the information available on this important, but under-researched, topic. In the longer term, the initiative is looking for additional funding to create an open "one-stop shop" for data created by an international network of researchers and practitioners working in this field. [http://cyber.law.harvard.edu/research/youthandmedia/developingcountries]

Youth, Social Media, and Civic Engagement in Nigeria focused its efforts on leveraging and tracking the impact of social media in the April 2011 elections, in partnership with Berkman Faculty Associate Michael Best and his colleagues at the Technologies & International Development Lab at Georgia Tech, we worked closely with EnoughIsEnough Nigeria, the Nigerian Elections Coalition, the Digital Bridge Institute, and MIT's Center for Civic Media. As a sort of culmination of a series of international workshops and conferences that looked at civic engagement and technologies more broadly and in electoral contexts, the team developed technologies and processes to enable real-time analysis and response to data streams including Twitter, SMS, blogs, mainstream media, Ushahidi instances, and more, peaking at fifty new items per second. At one point, the system identified two sisters trapped in their dorm room, and the team was able to direct public safety resources to rescue them. Next steps include distilling broader lessons from the experience and exploring the implications for use of social media in between elections, particularly around transparent and accountable government. The work was supported by—and conducted in genuine collaboration with—the Omidyar Network and the MacArthur Foundation.

3. Selected Independent Scholarship

The majority of Berkman's scholarship occurs within the context of our projects, which leverage collaboration and reflect the collective input of our project teams and wider community. While many fellows commit the majority of their research efforts to Center-wide initiatives, many also pursue independent projects during their fellowship term. A few examples include:

David Abrams continued to work with Berkman Center Faculty Co-Director Jack Goldsmith, project manager Caroline Nolan, and several summer interns to create a comprehensive bibliographic wiki of cybersecurity references. He is also currently researching the multi-defendant movie-downloading copyright lawsuits being filed against hundreds of thousands of "John Doe" defendants, trying to make sense of the interrelated economic, policy, and legal issues involved. In particular, these lawsuits offer defendants identified by their IP address only one rational economic choice: pay the settlement demanded by the plaintiffs in order to avoid higher costs defending a lawsuit, even if misidentified as copyright infringers. David is working to address the question of what percentage of the identified "John Doe" defendants are false

positives. He is also examining deficiencies in the DMCA takedown ballet with an eye to proposing modification to the statute that would be acceptable to all stakeholders. Finally, David again shepherded the first-year class of Harvard Law School students through the new Problem Solving Workshop in his alternate role as Program Director of that course.

Brad Abruzzi is an attorney in Harvard's Office of the General Counsel, where he confronts a wide variety of legal issues that intersect with technology and higher education. Brad's Berkman Center focus has been on copyright; earlier this year he placed a law journal article, "Copyright and the Vagueness Doctrine," at the *University of Michigan Journal of Law Reform*. The article considers the constitutional objection that the Copyright Act draws an uncertain boundary between infringing and non-infringing expression and proposes a series of reforms that would mitigate the effects of copyright's vagueness. Currently, Brad is reviewing the Supreme Court's jurisprudence on the US Constitution's "Intellectual Property Clause" over the years. His research shows that the substantial deference the Court has recently shown to Congress's legislation in the area of patent and copyright is for the most part inconsistent with the Court's traditional role in interpreting and applying the IP Clause. Finally, Brad hopes to e-publish a novel in the fall, titled *New Jersey's Famous Turnpike Witch*.

Mike Ananny continued his research on online press practices, specifically: finishing his analysis of news organizations' APIs; presenting new work at conferences analyzing news organizations' social media policies; and with Daniel Kreiss (Yale), writing and speaking about a new model for funding journalism by reconsidering copyright. With a team that included danah boyd (Microsoft Research / Berkman), he also published an analysis of Twitter information flows between journalistic and non-press sources during the Tunisian and Egyptian uprisings; and with Beth Coleman (MIT / incoming Berkman Fellow), Mike began a project to understand relationships between Egyptian protesters' use of social media and physical risk-taking. Mike also published an *Atlantic* article reflecting on the sociotechnical construction of recommendation algorithms and is developing a new research project around this general topic. At Berkman, he participated in the Media interest group, headed by Fellow Tom Stites, began as a Fellow mentor with the Youth and Media Lab, and arranged a visit by Professor Kate Hennessy of Simon Fraser University to talk about online cultural heritage, indigenous media production, and intellectual property.

In addition to overseeing the work of the Digital Media Law Project and Online Media Legal Network, **David Ardia** advanced his own scholarship in the areas of First Amendment, media law, and cyberlaw. In early 2011, he published an article in the *BYU Law Review* titled "Government Speech and Online Forums: First Amendment Limitations on Facilitating and Moderating Public Discourse on Government Websites." The article discusses the role that government can play, consistent with the First Amendment, in providing online platforms for speech that are conducive to robust discourse and civic engagement. In March, David was invited to speak at the First Annual Internet Law Scholars Works-in-Progress Symposium at Santa Clara Law School, where he presented his work in progress titled "Speech Unjoined." The paper examines the constitutional and pragmatic reasons why courts have been reluctant to order injunctive relief in defamation cases, noting that this reluctance has deep roots in American and English Law. It then explores the challenges and dangers of enjoining defamatory speech on the

Internet. David will be presenting the paper at the 11th Annual IP Scholars Conference in Chicago.

Jim Bessen continued his work on the empirical analysis of patents including research on patent "trolls" (patent holders who do not practice their patents, but engage in litigation), overall evaluation of the US patent system, analysis of software patents, pharmaceutical patent litigation, and international comparisons of patent value. He released a working paper on software patents called "A Generation of Software Patents," gave a series of lectures on empirical evaluation of patents at Beihang University in Beijing, and began a joint research project on estimating the value of Chinese patents. Jim also continued theoretical and historical research on patterns of technology life cycles and their relationship to patents and knowledge-sharing. He wrote three working papers, one of which has been accepted for publication in the *Journal of Economic History*, and worked on a book project.

Sasha Costanza-Chock continued to develop community-engaged scholarship in the fields of social movement media, digital participation, collaborative design, and media justice. He published various articles and book chapters, including one with USC-Annenberg Dean Ernest J. Wilson, III that documents persistent racial inequality in ownership and employment across all media platforms, and another with members of the VozMob project that discusses collaborative design of a mobile phone based platform for community journalism by day laborers and household workers in Los Angeles. Sasha presented at numerous events, including talk on transmedia mobilization at the Berkman Luncheon Series, on media and organizing in the immigrant rights movement at MIT's Comparative Media Studies program, and on community-university partnerships and a critical pedagogy of media justice at the Harvard-MIT-Yale Cyberscholars Working Group. In the spring of 2011, Sasha taught a project-based, service learning class on Multimedia for Social Change at USC Annenberg, as well as an intensive graduate seminar on Methods in Multimedia Scholarship for the Annenberg Summer Institute for Methods and Statistics. In December, he traveled to Abu Dhabi to receive the United Nations World Summit Award for Mobile Content in the category of m-inclusion and empowerment, with other members of the VozMob project team. Most recently, Sasha co-organized the "Let's Build It Together: Collaborative Technology Design" track for the Allied Media Conference and helped plan the MIT-Knight Civic Media Conference. In the fall, he will be joining the faculty of MIT's Comparative Media Studies program as Assistant Professor of Civic Media.

Oliver Goodenough continued his involvement with several Law Lab projects. In the sphere of digital institutions, he collaborated on work to bring the digital LLC platform to completion and oversaw a project at Dartmouth's Tuck School of Business that developed alternative, web centered methods of early stage entrepreneurial finance. He supervised development and launch of the Senegal Law Wiki, a pilot aimed at exploring the use of the web to provide access to legal materials in developing countries, and has been a contributor to the Cloud Law initiative. He also helped to convene the working group around "Educating the Digital Lawyer," continued piloting a law school course on "Digital Drafting," and is editing a book on the implications of digital practice for legal education. His chapter "Digital Firm Formation" appeared in the Kauffman book *Rules for Growth*. He was also a participant in Berkman's ICANN governance review project, contributing to the final report.

Eszter Hargittai recently signed a contract with MIT Press for an edited volume (co-edited with Christian Sandvig) on the behind-the-scenes details of social science research methods that concern digital media, which follows her 2009 *Research Confidential* book. Several papers she worked on while in residence at the Berkman Center came out in print in the past year. One concerns how students use Wikipedia during their information-seeking process; it was co-authored with Ericka Menchen-Trevino and published in the journal *Information, Communication and Society*. The other is about young adults' health information seeking in the digital age and was co-authored with Christine Percheski and published in the *Journal of American College Health*. In a similar vein, but focusing more on different types of health content, Eszter co-authored a paper with Kerry Dobransky that is forthcoming in the journal *Health Communication*. Last summer Eszter worked with danah boyd on a paper about students' approaches to privacy issues on Facebook based on survey data collected in 2010 that was published in *First Monday*. With Patrick Yuli Hsieh, she authored a methodological piece about survey measures of Web-use skill that will be published in a future issue of *Social Science Computer Review*. With Eden Litt, Eszter wrote a paper (forthcoming in *New Media & Society*) looking at Twitter adoption among a diverse group of young adults, finding that the reason more African Americans tend to use the service is that they tend to be more interested in celebrity and entertainment news. Eszter also had two book chapters published, one about a typology of social network site usage, the other about digital inequality and why even those who aren't specifically interested in inequality questions should stay conscious of people's differentiated online involvement. She received a grant from UC Irvine's Digital Media and Learning Hub to organize a working group of scholars using log methods and measures of online behavior (Log-MOB). Eszter also gave 18 invited talks during the year and 6 conference presentations.

Jason Kaufman spent this year as a fellow continuing to analyze data drawn from a four-year, NSF-funded study of Facebook.com. He and his team currently have papers under review at two major journals. Last fall, Jason was also interviewed by NPR's Marketplace news program for a story about data privacy. *The Chronicle of Higher Education* is currently working on a data privacy piece that focuses specifically on the challenges his team have encountered trying to find secure ways to provide other researchers access to their data.

Brian Kernighan started and has almost finished a new book, tentatively entitled *D is for Digital*, on what an educated person needs to know about computing. The book is the outgrowth of a Princeton course called "Computers in our World," which attempts to convey the basic ideas of hardware, software, and communications to a non-technical audience and provide them with enough technical understanding to read, understand, and assess technology in everyday life. Brian spoke on this topic at Fellows Hour and at a meeting of the Cyberscholars Group. Another book project, a short and hopefully popular work on innumeracy, did not make nearly as much progress, but did provide material for a Berkman lunch and a guest appearance in the introductory computer science course CS50.

Based in Tokyo, **Catharina Maracke** has been helping to facilitate joint projects between the Berkman Center and Keio University's Shonan Fujisawa Campus, including the setup of a workshop "Internet of Things: New Challenges for Technology and Society?", co-hosted by the two research institutions during the IoT2010 conference in Tokyo last November. Together with Urs Gasser and Caroline Nolan she has also been working to initiate an international research

project on cloud computing together with the NEXA Center for Internet & Society in Italy and Keio University's Shonan Fujisawa Campus in Japan. Through the year Catharina continued her research and projects on open content licenses, open educational resources, user generated content, and user innovation and gave numerous talks, including lectures on open access and the future of publishing at Humboldt University, Berlin.

Maura Marx has been working on the Medical Heritage Library (MHL), a subject-focused digital collaborative among some of the world's leading medical libraries (Harvard, Yale, Columbia, the National Library of Medicine, and with participation of the New York Public Library). Open Knowledge Commons started and funded MHL as a demonstration project: to work through some of the barriers to deep collaboration among institutional libraries; to identify and digitize all of the printed literature within a specific discipline; to provide a model for other subject repositories to follow. MHL is thriving in its second year and has recently received an NEH grant for further work on deep collaboration. In addition to her work with Open Knowledge Commons, Maura has been heavily involved in the Digital Public Library of America Project, working with members of the Berkman staff and faculty. She also serves on the on the Steering Committee of the DPLA with Berkman Faculty Co-Director John Palfrey.

Charles Nesson has been heavily relying on Internet tools to improve the learning experience at HLS, using the Berkman Center question tool as well as Surveymonkey to solicit class feedback. He has also been working to transfer the Evidence casebook to H2O. In a related effort, he has been working on the Jamaica project directly with educators as well as test prep company GoGSAT to incorporate technology as a teaching tool. Along with HLS students, he has sought to fight the good fight on behalf of innocent infringers: *amicus* briefs for Golan v. Holder, Jammie Thomas, Whitney Harper; as well as leading Joel Tenenbaum's appeal through both briefs and oral argument (heard this April), which awaits a verdict. In addition to these briefs, his writing efforts also included "Public Trial In The Age of Internet" (with Stephanie Weiner). Finally, poker of course still features prominently throughout the year.

Julio Angel Ortiz is seeking to understand competition in the US residential broadband markets and conducting an exploratory analysis of the NTIA National Broadband Map data on provider availability and speed offerings. In March, Julio helped update a working paper draft and prepare a presentation of the preliminary results that were delivered to the NTIA Working Group in Washington, DC. He also submitted an abstract of this project for inclusion in this year's Telecommunications Policy Research Conference. Full study results are still being refined and will be formally published this summer. In addition, Julio supports the Broadband project manager and statistician on micro-level, geographically-localized case studies of areas with high levels of broadband competition. He helped to update the literature review section of "Next Generation Connectivity report" released to the FCC last year. A full update is due to the Ford Foundation by the end of the summer. Finally, Julio is developing a draft survey of a residential broadband adoption for wholly or partially owned municipal networks (fiber or cable).

Joseph Reagle published *Good Faith Collaboration: The Culture of Wikipedia*, which has been well received, with 20+ reviews from reputable journals (*Computing Reviews, Journal of Communication, Law Library Journal*, Social Force, etc.) to popular websites (Boing Boing, TheAtlantic.com, Wikipedia Signpost, etc.). Joseph also has been working on the book's

Creative Commons-licensed digital edition. An additional publication from this year is a contributed chapter to *Critical Point of View: A Wikipedia Reader*. Joseph helped launch and facilitate Berkman's Wikipedia Reading Group and List and furthered his historical research on Wikipedia, including a reconstruction of Wikipedia's first edits from 10 years ago. Most of this year was focused on gender and free culture. His article on "Gender Bias in Wikipedia and Britannica" is now pending publication and his argument on "Free as in Sexist?: Free Culture and the Gender Gap" is under review. Coincidentally, this topic received quite a lot of news coverage over the winter. Joseph has been able to germinate a number of new research ideas, including his approach to research on plagiarism and Wikipedia production. He also continued to advance and support Thunderdell, a suite of mindmap bibliographic tools; and extend and take up maintenance of mw, a version control system interface for editing MediaWikis.

Wendy Seltzer expanded her copyright and patent scholarship, publishing two law review articles bringing perspectives of user innovation and free expression to critique different aspects of the Digital Millennium Copyright Act (anti-circumvention and the notice-and-takedown regime, respectively). She published in *IEEE Security and Privacy* "Exposing the Flaws of Censorship by Domain Name" and will present "Software Patents and Software Development" at TPRC, among other invited talks. Wendy represents the Non-Commercial Users' Constituency in ICANN and serves on the boards of the Tor Project and the World Wide Web Foundation US.

As part of the research agenda of Law Lab, Faculty Co-Director Yochai Benkler, Research Fellow **Aaron Shaw**, and several collaborators continued a series of empirical studies into the design, mechanisms, and impacts of online cooperation. The results of these efforts include a forthcoming paper in *American Behavioral Scientist* analyzing participation dynamics in the US political blogosphere as well as a large scale experimental study comparing incentives in an online labor market that was recognized among the best papers at the 2011 ACM Conference on Computer Supported Cooperative Work (CSCW) this year in Hangzhou, China. This line of research continues through a series of ongoing studies investigating the effects of reputation-based awards on Wikipedia and another project examining the relationship between user participation and the success of venture-funded Internet startups between 2001-2008. In addition to this work with the Law Lab, Aaron pursued several additional projects, including a study of young people's Internet use and political engagement in collaboration with Faculty Associate Eszter Hargittai as well as another project examining the sources and dynamics of status inequalities on a large-scale political blog.

Tom Stites has made great headway on detailed business planning for the Banyan Project, which he founded, and, as his fellowship year ends, he is well down the path to launching a pilot project. Through Berkman, Tom received guidance from business school professors that helped shape his approach to business planning. He also received pro bono advice from the Law School's Transactional Law Clinic, which filed Banyan's application to the IRS for 501(c)(3) status. One of the high points came early in his fellowship year, when he presented Banyan's pioneering concept of relational and collaborative journalism for critique at a fellows hour. The feedback was invaluable. Banyan business planning spawned a Berkman research project to explore ways that cooperatives might serve as the foundation for new business models for journalism and to define public policy issues this idea raises. Tom represented Berkman as a speaker on the future of journalism at the National Conference on Media Reform, the Summer

Institute of Center for Popular Economics, and the Washington State News Council, as well as several journalism conferences. He continues to work on the Banyan Project, which aims to strengthen democracy through reliable, original Web-based journalism that serves less-than-affluent everyday citizens and engages the civic energy of this huge public, which is ill-served by mainstream journalism. The mission and value proposition—delivering useful news tailored so that this specific public finds it relevant, respectful, and trustworthy—flows from a groundbreaking and massively scalable business model that requires little advertising to thrive. Banyan's professional editors and reporters will work in close, collaborative, and accountable relationship with readers as their collaborators.

Peter Suber continued his work for open access (OA) to peer-reviewed science and scholarship, in collaboration with the Berkman Center, HLSL, and the Office for Scholarly Communication. He published more than a dozen articles during the year, among them pieces documenting unanimous faculty votes for university OA policies, analyzing the standoff between the University of California and the Nature Publishing Group, detailing his personal experience self-archiving in Harvard's OA repository, unearthing a history of politically selective calls for OA, re-examining William Garvey's 1979 thesis ("in some disciplines, it is easier to repeat an experiment than it is to determine that the experiment has already been done") in the age of the Internet, and reviewing the major OA developments of 2010. He consulted with more than 20 institutions developing OA policies, and recently finished two books on OA to appear early in 2012 from MIT Press.

For most of the academic year, **David Weinberger** researched and wrote a book, titled *Too Big to Know*, about the nature of knowledge in the Age of the Net. It will be out in January 2012, from Basic Books. David also completed most of the research for a *Scientific American* article on the limits of Big Data. He served as the interviewer in the majority of Radio Berkman podcasts. As a member of the Fellows Advisory Board, David has been among those providing advice to the Center and mentoring to incoming Fellows. As Co-Director of the Harvard Library Innovation Lab, he has been informally involved in the Center's increasing library-centered activities, including the Center's serving as the Secretariat for the Digital Public Library of America. As a Franklin Fellow at the US State Department, there has been some intersection with his role at the Center, including hosting a meeting with State's eDiplomacy group at the Berkman Center. David participated in many of the Center's conferences, sometimes speaking, sometimes facilitating, and almost always blogging. In addition, he has given numerous academic talks and invited lectures, has continued to advocate for an open Internet, and continues to blog, tweet, and podcast.

Jonathan Zittrain is madly working to get a fully free (both as in beer and as in speech) torts course and syllabus ready to go by September. He has begun writing a book called *COG* about human computing. Herdict remains both up and running and very much in development. Jonathan is thinking through how to use our existing mobile phones and other devices to achieve ad hoc mesh wireless networks in times of trouble, when traditional wifi access points and cellular networks are down. He is also contributing to the FCC as visiting scholar and to the boards of the Electronic Frontier Foundation and the Internet Society. A few notable publications from this past year include: "Will the U.S. get an Internet 'kill switch'?" with Molly Sauter, *MIT Technology Review*; "Freedom and Anonymity: Keeping the Internet Open," *Scientific*

American; “A Mutual Aid Treaty for the Internet,” Brookings; “Net Neutrality as Diplomacy,” *Yale Law and Policy Review*; “Accountability and Transparency at ICANN: An Independent Review,” with Urs Gasser, Herbert Burkert, and John G. Palfrey.

Ethan Zuckerman’s work at Berkman for 2010–2011 focused on two fronts: threats to online speech, and analysis of media ecosystems. On the latter topic, Ethan, Hal Roberts, David Larochelle, Catherine Bracy, and Zoe Fraade-Blanar re-launched Media Cloud with a vastly expanded set of features. The tool allows users to compare the foci of media coverage in blogs and broadcast media over the past year. Advanced features allow researchers to track the evolution of specific stories and the spread of media frames between participatory and professional media. In the online speech space, Ethan co-authored and released a study on Distributed Denial of Service attacks and their effects on human rights and independent media organizations. He worked with Hal Roberts on a study of usage of circumvention tools and a comparison of the efficacy and speed of 19 censorship circumvention tools. He also collaborated on a survey about circumvention tool usage and co-authored a paper summarizing their work in this field, as well as a number of influential blog posts focused on "internet freedom". Ethan continues to work on his book, to be published by W.W. Norton and tentatively titled *Rewire*, which looks at the challenges and opportunities of international connection in a digital age. His closing keynote at CHI on cities and serendipity is a preview of one of the chapters of the book. He has also been working closely with MIT’s re-launched Center for Civic Media, which he will be leading as of September.

4. Publications

This year the Berkman Center produced a number of formal publications, which we released through our website and other online channels. Large-scale efforts included the publication of an independent review of Accountability and Transparency at ICANN, a paper on Public Discourse in the Russian Blogosphere, a Circumvention Tool Usage Report, and a report on Distributed Denial of Service Attacks. Each release was promoted over our listservs and via social media outlets; in some cases hard copies of the publication were produced. Select publications included:

- **Best Practices in the Use of Technology to Facilitate Access to Justice Initiatives.** The Cyberlaw Clinic undertook this study to help the Massachusetts Trial Court work toward a comprehensive, holistic strategic plan for maximizing technology’s role in the Access to Justice Initiative. It was authored by Cyberlaw Clinic Director Phil Malone and Clinic Students Alan Cheuk, Sara Rowe, Isaac Kriegman, and Sandy Wong.
- **The Rise of the News Aggregator: Legal Implications and Best Practices.** This white paper, authored by Citizen Media Law Project fellow Kimberly Isbell, attempts to answer the question of whether news aggregators violate current law by examining the hot news misappropriation and copyright infringement claims that are often asserted against aggregators. It also provides news aggregators with some “best practices” for making use of third-party content.
- **2010 Circumvention Tool Usage Report.** This paper evaluates the usage of blocking-resistant circumvention tools, simple web proxies, and VPN services and finds that overall usage of circumvention tools is still very small in proportion to the number of Internet users in countries with substantial national Internet filtering. It was authored by

fellow Hal Roberts, senior researcher Ethan Zuckerman, project manager Jillian York, research director Rob Faris, and Faculty Co-Director John Palfrey,

- **Public Discourse in the Russian Blogosphere: Mapping RuNet Politics and Mobilization.** This paper is the first release from the Berkman Center's Russian Internet research project. It analyzes the Russian blogosphere with an emphasis on politics and public affairs. It was authored by project manager Bruce Etling, affiliates Karina Alexanyan and John Kelly, research director Rob Faris, Faculty Co-Director John Palfrey, and Executive Director Urs Gasser.
- **Accountability and Transparency at ICANN: An Independent Review.** In August 2010, selected faculty and researchers at the Berkman Center initiated an independent, exploratory study analyzing ICANN's decision-making processes and communications with its stakeholders. The study focused on developing a framework and recommendations for understanding and improving ICANN's accountability and transparency.
- **Political Change in the Digital Age: The Fragility and Promise of Online Organizing.** In this paper, project manager Bruce Etling, research director Rob Faris, and Faculty Co-Director John Palfrey discuss the possible impact of digital technologies in authoritarian and semi-authoritarian regimes.
- **2010 Report on Distributed Denial of Service (DDoS) Attacks.** This paper evaluates the impact of distributed denial of service (DDoS) attacks on independent media and human rights sites in nine countries, as well as the broader impact of DDoS attacks worldwide, and makes recommendations for how independent media and human rights sites can best respond to such attacks. It was authored by senior researcher Ethan Zuckerman, fellow Hal Roberts, research assistant Ryan McGrady, project manager Jillian York, and Faculty Co-Director John Palfrey.
- **Designing Incentives for Inexpert Human Raters.** This paper, written by fellow Aaron Shaw with John Horton and Daniel Chen, presents the results of an experiment comparing the effects of social, financial, and hybrid incentive schemes on worker performance in an online labor market (Amazon's Mechanical Turk).
- **Rethinking Music: A Briefing Book.** The Berkman Center for Internet & Society curated and contributed to a briefing book for the Rethink Music conference. The book includes the Center's own framing paper, which introduces a number of issues that were discussed during the course of the conference. Contributions from a wide range of contributors, addressing some of the most current and compelling issues in music law and policy, shaped the rest of the publication. (For additional detail, see Clinic section, above)
- **Online Security in the Middle East and North Africa.** In this report we describe the results of a survey of 98 bloggers in the Middle East and North Africa (MENA) carried out in May 2011 in order to study bloggers' perceptions of online risk and the actions they take to address digital communications security, including both Internet and cell phone use. It was written by research director Rob Faris, fellow Hal Roberts, project coordinator Rebekah Heacock, senior researcher Ethan Zuckerman, and Executive Director Urs Gasser.

The Berkman Center's paper series with the Social Science Research Network provided additional visibility and access for these publications, as well as for new papers by Berkman Center faculty co-director **John Palfrey**, "Four Phases of Internet Regulation," and faculty

associate **James Bessen**, of Boston University School of Law, "A Generation of Software Patents."[http://papers.ssrn.com/sol3/JELJOUR_Results.cfm?form_name=Pip_jrl&journal_id=411981]

Last but not least, this year saw the publication of three books by Berkman Center-affiliated scholars:

- Faculty associate **Lewis Hyd**e's *Common as Air: Revolution, Art, and Ownership;*
- Fellow **Joseph Reagle**'s *Good Faith Collaboration: The Culture of Wikipedia;* and
- Faculty associate **Dan Gillmor**'s *Mediactive*.

In addition to these formal publications, members of our community very actively produce writing and commentary on blogs and other online spaces. These online writings are aggregated and can be found on the Berkman Center website at http://cyber.law.harvard.edu/planet/current/.

D. Communications and Digital Media

The Berkman Center's communications are an important component of our commitment to access to knowledge and the public good, as well as a driver of our community's growth. Increasingly, our research initiatives depend, at least in part, on successful communications with a research community or wider audience for their general success. Since 2007–2008, our communications team has continued to develop an adaptive and modular approach, with the goal of being able to offer a range of facilities and services at relatively low cost and with minimal production time.

Our communications continue to yield high attendance at Berkman events, as well as an ever increasing number of requests for comment from faculty and fellows, who are quoted almost daily in a vast range of news publications. As in past years, the Berkman faculty, fellows, and researchers were consulted by, and quoted in, a wide range of outlets, including the *New York Times*, *The Economist*, BBC, NPR, *Wall Street Journal*, *Washington Post*, *Financial Times*, and many others.

Berkman's own media, including web presences and mailing lists, anchor our communications and community work. Excluding our many project-specific websites, our main website and its resources are visited approximately 5 million times per year. The weekly *Berkman Buzz* has grown to over 9,000 subscribers, and an additional 9,000+ subscribers receive emails from our outgoing research list. Over 8,000 people receive the Center's weekly *Events and Digital Media Roundup*. Berkman's employment, special events, and *Filter* newsletter mailing lists have also continued to gain subscribers. In addition, Berkman maintains substantial beachheads in platforms such as Facebook, YouTube, and Twitter, the latter having served as a key amplifier in recent years.

Berkman's digital media outputs have been attracting more and more followers and have improved in quality and strategic focus. We continue to improve the quality and delivery of our popular Tuesday lunch series. Nearly all public meetings, presentations, lectures, and other relevant events are webcast live, then archived online in a variety of formats, including open-source codecs and low bandwidth audio-only versions. In addition to webcasting and archiving

events-based discussions, the Center produced several unique video packages, including a special series of videos for this spring's "Hyper-Public" conference and other featured events. The communications team has focused on a strategy of synthesizing and summarizing various conversations happening within the Center to better communicate the work of projects to their audiences and continue the threads of conversation outside of the walls of the Center.

Berkman Fellow David Weinberger and digital media producer Daniel Jones brought Radio Berkman into its third year with 21 brand new episodes. The weekly radio-style podcast features highly produced interviews with authors, thinkers, and Center researchers on timely and provocative topics. Episodes have seen an increase in listenership from an average of 1300 to an average of 2100. Our audience has expanded especially thanks to special episodes explaining issues surrounding Wikileaks, an entire series of special episodes on the music industry in collaboration with our partners in the Rethink Music conference, and a second season of our extremely popular series with Professors Jonathan Zittrain and Larry Lessig.

Our digital media stream is syndicated through the MediaBerkman blog, iTunes, Odeo, and PRX, and further distributed through YouTube, ikbis, DotSub, and Vimeo; it is frequently resyndicated, embedded by third parties, and widely linked to by outlets such as the online technology journal *Ars Technica.* Over 700 Berkman media pieces are available online.

The communications team plans to be even more aggressive with Radio Berkman and our other digital media outputs in the coming year, expanding reach and improving quality with the help of partnerships and sponsorships.

E. Conferences and Events

Through discussions, lectures, conferences, workshops, and other gatherings, the Berkman Center convenes diverse groups around a wide range of topics examining the Internet as a social and political space. The unique interactions generated through these events—both as process and as product—are fundamental elements of the Berkman Center's *modus operandi*.

While research and teaching are our top priorities, these auxiliary connections facilitate the continuous expansion and renewal of Berkman's core network. They also stimulate interactions with other disciplines and institutions, such that diverse perspectives—from academics, policy-makers, activists, students, and technologists—can be brought to bear on the complex issues generated by the interaction between technology and society.

1. Ongoing Events and Series

Luncheon Series. Every Tuesday for the past nine years, we have hosted a lunch gathering in our conference room. Each session involves a short presentation by a guest speaker or one of our community members, talking about a hard problem or challenge that emerges from his or her current work. These presentations attract a loyal following among students, faculty, and others from Harvard and beyond, are webcast live, and are made available as a podcast series. Each week, the luncheon reaches about 40 people in person, in addition to many others who follow live online, and still others who tune in asynchronously. Many important projects and scholarly

works have been vetted—and impacted—early in their trajectory at the Berkman Luncheon Series. This year's luncheons featured:

- **Erez Lieberman Aiden**, Harvard Society of Fellows, and **Jean-Baptiste Michel**, FQEB Fellow at Harvard—both visiting faculty at Google—analyzed a corpus of digitized texts containing about 4% of all books ever printed, referring to this terrain as "culturomics."
- **Kate Crawford**, author of *Adult Themes* and Associate Professor in Media Research at the University of New South Wales, discussed how we manage the increasing demands of network connectivity from mobiles, email, and social media.
- In a talk co-hosted with our colleagues at Harvard's CRCS, **Cynthia Dwork**, Distinguished Scientist at Microsoft, talked about an alternate notion of privacy for statistical databases, which she calls "differential privacy."
- **Sasha Costanza-Chock**, Assistant Professor of Civic Media at MIT and media maker, works in the interrelated areas of social movements and information and communication technologies, and discussed "Transmedia Mobilization," inviting us to rethink the relationship between social movements and the media opportunity structure.
- **Kim Dulin** & **David Weinberger**, co-directors of the Harvard Library Innovation Lab at Harvard Law School, demonstrated their lead project (ShelfLife) and talked about the Lab's proposed multi-library metadata server (LibraryCloud).
- Berkman Center fellows **Eszter Hargittai**, Associate Professor of Communication Studies and Faculty Associate of the Institute for Policy Research at Northwestern University, and **Aaron Shaw**, Ph.D. candidate in the Sociology Department at UC Berkeley, presented their research on The Internet, Young Adults, and Political Participation around the 2008 Presidential Elections.
- **Eric von Hippel**, Professor of Engineering Systems at MIT and Berkman Center Faculty Associate, presented on a paradigm shift in innovation, where individual users and open collaborative innovation are increasingly competing with and may displace producer innovation in many parts of the economy.
- **Brian Kernighan**, Berkman Center fellow and Professor of Computer Science at Princeton University, posited that technology has buried us in an avalanche of numbers and graphs and charts, many of which claim to present the truth about important issues, and focused on how we can reclaim basic numerical literacy in the digital age.
- **Dorothea Kleine,** Lecturer in Development Geography at the UNESCO Chair/Centre in ICT4D at Royal Holloway, University of London, led an open conversation on the diverse and potentially conflicting ideologies embedded in state ICT policies and technical artifacts and the intended and unintended consequences.
- **Susan Landau**, Fellow at the Radcliffe Institute for Advanced Study at Harvard University and affiliate of CRCS, offered thoughts from her book on *Surveillance or Security? The Risks Posed by New Wiretapping Technologies*. Susan's talk was the first in our lens highlighting issues related to privacy and security in digitally networked environments.
- **Larisa Mann**, Ph.D. candidate at UC Berkeley Law School's Jurisprudence and Social Policy Program, whose research focuses on culture, copyright law, technology, and power, grounded in an ethnographic case study of Jamaican music-making practices, talked about how the street dance, the explosively creative heart of Jamaican musical

practice, suggests several ways that technology can serve as help or hindrance to people currently excluded from formal systems of power.

- **Juan Carlos de Martin**, Co-Founder and Co-Director of the NEXA Center for Internet & Society at Politecnico di Torino, and **Charles Nesson**, HLS Faculty / Berkman Center for Internet & Society, posed the question: how can we best develop the potential of an Internet-enabled University without losing sight of the University's ultimate goals in society?
- **Andy Oram**, editor and blogger at O'Reilly Media, suggested a more comprehensive architectural approach to discussing questions of cloud computing and open source software.
- **Juliet Schor**, Professor of Sociology at Boston College, discussed peer production and open-source practices to accelerate the design and diffusion of ecologically intelligent and efficient modes of provision in agriculture, consumption, and manufacturing.
- **Tim Wu**, policy advocate, author of *The Master Switch*: *The Rise and Fall of Information Empires*, professor at Columbia Law School, and chairman of media reform organization Free Press, discussed the ideas presented in *The Master Switch*. Wu was recognized in 2006 as one of 50 leaders in science and technology by *Scientific American* magazine, and in 2007 Wu was listed as one of Harvard's 100 most influential graduates by *02138* magazine. Wu also co-authored *Who Controls the Internet? Illusions of a Borderless World* with Harvard Law School professor Jack Goldsmith.
- **Ethan Zuckerman**, senior researcher at the Berkman Center, co-founder of Global Voices Online, and incoming director of the Center for Civic Media at MIT, and **Hal Roberts**, Berkman Center fellow, presented on their research "Distributed Denial of Service Attacks Against Independent Media and Human Rights Sites."

Harvard-MIT-Yale Cyberscholar Working Group. The working group is a monthly forum for students, fellows, and affiliates of Harvard's Berkman Center, Yale Law School's Information Society Project, and the Comparative Media Studies Department/Future for Civic Media at MIT. Members discuss research and papers in progress. Some of this year's discussions included:

- **Brad Abruzzi**, Berkman Center Fellow and Associate Attorney in the Office of the General Counsel at Harvard University, presented his article on "Copyright and the Vagueness Doctrine," which undertakes a searching constitutional review of the Copyright Act against the void-for-vagueness doctrine, which requires that laws identify with some measure of specificity and clarity what sort of conduct is prohibited and what is not.
- **Nicholas Bramble**, Lecturer in Law and MacArthur Fellow in Law at the Information Society Project at Yale Law School, explored what we can learn from the success of safe harbors.
- **Karen Brennan**, MIT Media Lab, presented on Issues of Structure and Agency in Computational Creation, In and Out of School.
- **Leah Buechley**, Assistant Professor at the MIT Media Lab, used sales data, publicly available project documentation, and surveys to discuss how How Hardware's Long Tail is Supporting New Engineering and Design Communities.

- **Konstantin Mitgutsch**, Max Kade visiting researcher at the Education Arcade of the Comparative Media Studies Program of the MIT, discussed Recursive Learning in Computer Games, Game Design & Learning Theories.
- **Yanni Loukissas**, Postdoctoral Associate, Program in Science, Technology, and Society, MIT, talked about developing tools for information visualization that will bring social science questions into view for human-centered computing.
- Berkman Fellow **Toshie Takahashi** examined the historical and current trends of mobile internet use among Japanese youth.

2. Conferences and Special Events

The Center's conferences engage students, faculty, and fellows, as well as government representatives, business leaders, and civil society, through their unique tenor and approach, often touching off new collaborations. A selection from this year includes:

- **Academic Uses of Social Media: Exploring 21st Century Communications**: Social media—from blogs to wikis to tweets—have become academic media, new means by which scholars communicate, collaborate, and teach. A distinguished faculty panel, which included Harvard Faculty members Michael Sandel, Nancy Koehn, N. Gregory Mankiw, Harry Lewis, and moderator John Palfrey, talked about how they are adopting and adapting to new communication and networking tools. Berkman affiliated and researcher at Microsoft Research danah boyd offered a keynote at the event.
- **The Cablevision Case—2 Years Later: A Conversation About Copyright, Content, and the Cloud**: Presented by the Cyberlaw Clinic at the Berkman Center for Internet & Society and Harvard Law School's Journal of Law and Technology, R. David Hosp of Goodwin Procter LLP and Ed Weiss, New England Sports Ventures, discussed the Second Circuit's decision in *Cartoon Network v. CSC Holdings*, 536 F.3d 121 (2008)—known as the "Cablevision" case—which stands as the leading federal court decision to address copyright issues in the context of cloud-based content storage systems.
- **Common as Air:** Lewis Hyde, Berkman Center Faculty Associate and Professor at Kenyon College, discussed *Common as Air* with Carl H. Pforzheimer University Professor and Director of the University Library at Harvard Robert Darnton, who referred to the book in the *New York Times* as "an eloquent and erudite plea for protecting our cultural patrimony from appropriation by commercial interests." The event was co-hosted with the Humanities Center at Harvard University.
- **Digital Natives Film Screening**: As the conclusion of the Berkman Center's summer interns collective project, the Center hosted a film screening, featuring short YouTube videos that were produced by teams of summer interns, each of which featured a chapter and key questions from John Palfrey and Urs Gasser's book *Born Digital*.
- **Four Ideas for a Better Internet:** This event featured four TED-style talks by students in the Difficult Problems in Cyberspace seminar, a joint venture of Harvard Law School and Stanford Law School, led by Professor Jonathan Zittrain. Bringing together esteemed thinkers and innovators, this event examined the hard problems at the core of the developing online space, with topics drawn from the areas of Cybersecurity, Diplomatic Transparency, Crowdsourcing, and Privacy and Reputation.

- **The Googlization of Everything**: Siva Vaidhyanathan, a cultural historian and media scholar at the University of Virginia, questioned whether Google's dominance is the best situation for the future of our information ecosystem.
- **Hyper-Public: A Symposium on Designing Privacy and Public Space**: Technology is transforming privacy and reshaping what it means to be in public. Our interactions—personal, professional, financial, etc.—increasingly take place online, where they are archived, searchable, and easily replicated. Discussions of privacy often focus solely on the question of how to protect privacy. But a thriving public sphere, whether physical or virtual, is also essential to society. Hyper-Public brought together computer scientists, ethnographers, architects, historians, artists, and legal scholars to discuss how design influences privacy and public space, how it shapes and is shaped by human behavior and experience, and how it can cultivate norms such as tolerance and diversity.
- **Internet Architecture and Innovation:** Barbara van Schewick, Associate Professor of Law at Stanford Law School and Director of Stanford Law School's Center for Internet and Society, discussed her widely praised book, *Internet Architecture and Innovation.*
- **Mapping the Russian Blogosphere:** Hosted by USIP's Center of Innovation for Science, Technology & Peacebuilding, experts from Harvard University's Berkman Center for Internet & Society and Morningside Analytics presented their new research on the Russian blogosphere, while prominent Russia experts and notable bloggers responded. The research team mapped this extensive social network, analyzing over 11,000 Russian language blogs to understand how politics is discussed, by whom, and if there is evidence of political and social mobilization in the blogosphere. The team also analyzed the blogosphere's place within the overall Russian online and traditional media ecology, including discussion of top political YouTube videos.
- **Media Law in the Digital Age: The Rules Have Changed, Have You?** In association with the Center for Sustainable Journalism at Kennesaw State University, Berkman's Citizen Media Law Project brought together panels of legal practitioners, journalists, and academics to discuss the latest legal issues facing online media ventures. Topics included: libel law, copyright law, newsgathering law, and advertising law, as well as the legal issues arising from news aggregation, managing online communities, and business law considerations for start-up online media organizations.
- **Open House:** The Berkman Center hosted its annual open house in the fall of 2010, which offered Harvard students, faculty, fellows, staff, and other members of our community an opportunity to learn more about our research and ways to get involved in our community. This year's open house attracted over 300+ participants.
- **Open Video Conference:** The Berkman Center helped to support the Open Video Conference 2010, which focuses on creating and promoting free and open technologies, policies, and practices in online video.
- **Rethink Music**: During the 2010–2011 academic year, the Berkman Center worked with Berklee College of Music on a series of initiatives relating to music law and business. In October 2010, the Center hosted a small working group meeting at Harvard Law School, featuring a range of industry stakeholders (including representatives from the academic, legal, creative, policy, and business communities). This "Rethink Music Working Group" spent a day identifying and discussing a wide variety of legal and business issues relevant to creators and distributors of music and served as a precursor to the "Rethink Music" conference, held in Boston in April 2011. The conference, put on by Berklee College of

Music and MIDEM in association with the Center and Harvard Business School, brought together more than 500 participants to discuss the most important issues facing the music industry and content owners, creators, and consumers today. The Berkman Center played a major role in the conference. The Center provided input advice during its conception and planning regarding the roster of speakers and make-up of panels. It managed an academic call for papers, working with Harvard Law School's *Journal of Sports & Entertainment Law* to select a paper that proposed "changes to intellectual property or other laws that relate to the creation, production, distribution, performance, or other use of musical works." (Mary LaFrance of UNLV's William S. Boyd School of Law, who authored the paper selected as part of the call—"From Whether to How: The Challenge of Implementing a Full Public Performance Right in Sound Recordings"—presented her work at the Rethink Music conference.) The Berkman Center also assembled a briefing book that compiled contributions from a variety of authors and industry stakeholders regarding cutting-edge issues of music law and policy. (For additional information, see Clinical section above.)

- **Students for Free Culture Conference**: The Students for Free Culture Conference was a gathering of student activists, intellectuals, artists, hackers, and generally interested people to discuss the latest issues in the free cultural world, especially with a focus on student involvement and participation. The conference featured keynotes from the creators of Diaspora, Pablo Ortellado, and Susan Crawford, as well as panels on remix culture, open education, and fashion and copyright.
- **VRM+CRM 2010:** Lead by Berkman alum Doc Searls, Berkman hosted a workshop on "vendor relationship management." The aim of this event was to get VRM and CRM developers and other interested parties (such as CRM customers) together to start building out the common ground between them.

3. Working Groups

Berkman Fellow and practicing higher education attorney Brad Abruzzi has convened a **Copyright/Intellectual Property Law Working Group** within the Center. The Working Group intends to meet on a biweekly basis to discuss its members' several independent research projects in the area of IP law, and to date presenters have discussed the disjunct between the constitutional requirements of "nonobviousness" (in patent law) and "originality" (in copyright law) for federal statutory IP protection; statistical trends in software patenting; and proposed fair use/ fair dealing amendments to the Indian copyright statutes. In the fall the Working Group hopes to carry forward its principal object of promoting its members' own research projects, while at the same time assuming a public aspect that will bring IP developments and issues of moment into Berkman-hosted events.

Wikipedia Reading Group: This group is a small, user-driven forum for discussing Wikipedia-related topics. The group discussed recent research, current practice in different fields, engagement of universities in Wikipedia and other broad collaborations, and historical parallels in large-scale synthesis and sharing of knowledge. Participants are welcome to report on their own work and experiences and contribute to the reading list. For each item they read as group, they also linked to a summary page on AcaWiki (a wiki for summaries of academic articles and

books). Participants are each encouraged to contribute and collaborate on the AcaWiki summaries to help create resources for others reading or referring to these work in the future!

Center for Research on Computation and Society. This was the second year of a joint Fellowship Program between the Berkman Center and the Center for Research on Computation and Society (CRCS) at the School for Engineering and Applied Sciences. The relationship between the two was strengthened by cross-promoted and -attended events, and a co-sponsored talk by Cynthia Dwork of Microsoft (see above). CRCS mounted a number of luncheon talks on work being done by their fellows.

4. Project Events

A number of Berkman projects used events to connect with other researchers and to share and develop their work. Some examples include: a fall workshop on "Exploring Children's Digital Safety in Developing Nations"; a meeting on "The Future of Consumer Protection" with the University of St. Gallen; a strategic brainstorming session as part of our ICT4Peace paper series; a series of workshops around the Digital Public Library of America; and a meeting on cybersecurity, information about which can be found above.

In addition to these events, a wide variety of internal conversations were hosted with numerous guests from diverse sectors and disciplines, including: Stewart Baker (first Assistant Secretary (acting as Under Secretary-equivalent) for Policy at the United States Department of Homeland Security), Donald Brinkman (Microsoft), Noel Dickover (US State Dept), Zack Exley (Wikipedia), Tony Falzone (Stanford Fair Use Project), Archon Fung (HKS), Felipe Hauser, David Hornik (August Capital), Robert Kirkpatrick (UN Global Pulse Initiative), Pablo Ortellado (Brazilian Scholar), Amanda Palmer (Musician), Geanne Rosenberg (CUNY), Alec Ross (US State Dept), Sheryl Sandberg (Facebook), Ben Schneiderman (UMD), Eliot Schrage (Facebook), Ben Scott (US State Dept), Alec Tarkowski (Creative Commons Poland), a delegation of Chinese media scholars, professors from Keio University, and many more.

F. Technical Infrastructure Support

"The Geeks," as the technical staff at Berkman are affectionately called, maintain the core technical infrastructure at the Berkman Center. This past year, the Geek team developed a model that can be divided, roughly, into two halves: a support and maintenance half and a software development half. All software is developed in-house or by external contractors at the Berkman Center and is managed by the centralized development team. The support half of the Geek team maintains all hardware (servers, desktops, and laptops) that run the development and production instances of all Berkman software. The entire team currently consists of Justin Clark, Dan Collis-Puro, Sebastian Diaz, David Larochelle, Anita Patel, and Edward Popko. The latest addition, Justin Clark, joined the team late in the year, having come to know Berkman via quality assurance testing of the new Herdict design implementation.

In addition to internal work, the Geeks also work hard to share their knowledge, expertise, and resources externally with the Harvard community. Berkman hosts blogs, wikis, content management systems (CMSs), and custom applications for use by departments and individuals.

The technical team publishes all of our code under open-source licenses, allowing other Harvard departments and the wider Internet community to benefit from our work. The Geeks collaborate with teams external to Berkman and share our understanding of how to navigate technology. In the fall of 2010, we began to collaborate with the Harvard Library Lab, providing the technical expertise to encourage innovation in libraries. Through this process, we have become more involved in collaborations with groups in the Harvard Library, the Harvard Law School Library, the Office for Information Services, and the Office for Scholarly Communication. Working with these groups has allowed our team to better understand how resources and projects connect across University departments, and also to foster new connections.

These collaborative efforts are enabled by the technical infrastructure built to support it. Of the 45+ servers that we run (that's an aggregate of 98 CPU cores and 220+ GB of RAM), 60% are dedicated to supporting web applications. Half of all the servers at Berkman are also virtual servers, with all new servers being deployed as VMs, and plans to migrate the physical hardware to VMs as we continue forward. Virtualization allows Berkman servers to be deployed and updated more quickly; it also enables those changes to be balanced across our physical infrastructure. These benefits preserve our production system uptime while maintaining system security. Virtualization also brings the added benefit of making Berkman's server footprint smaller and more efficient.

II. LOOKING AHEAD

In the next academic year, the Berkman Center plans to intensify its activities in three analytically distinct, but interacting areas of strategic interest: interdisciplinary and technology-enabled research and teaching methods, cross-institutional collaboration, and organizational development.

A. Development and refinement of interdisciplinary and technologically-enabled research and teaching methods, tools, and platforms

We will continue to develop, refine, and diversify our interdisciplinary and technologically-enabled research and teaching methods, tools, and platforms in order to carry out innovative projects in various areas of interest. In an increasingly complex digitally networked environment, we will support projects that draw cyberlaw issues, questions, and frameworks together with new and combined methodological approaches and disciplinary perspectives in order to deepen our understanding of online phenomena across a broad thematic spectrum.

While these activities will take many forms, four efforts are exemplary: Internet Monitor, H2O, the re-initiation of iLaw, and the Youth and Media Lab. Internet Monitor is a long-term effort to integrate various Berkman research tools and datastreams regarding, broadly, the relationship between new technologies and civic engagement in order to make them both more accessible and more meaningful to a wider audience. H2O is focused on revamping a set of classroom tools designed to create collections of online content that are easily shared and remixed for diverse teaching environments. The 2011 iLaw program brings students together with practitioners and academics, embraces interdisciplinarity, and provides a unique platform for shared teaching, learning, discovery, and collaboration. The Youth and Media Lab is a youth-driven research and

development lab for information and media literacy as well as digital empowerment. Each initiative provokes and promotes the continued development of Berkman's research capacity and human network, while drawing on and synthesizing key Berkman efforts in teaching, research, and engagement.

B. Collaboration with other research centers (at Harvard, in the US and worldwide)

Over the next academic year, we will seek to sustain and further deepen our innovative and productive collaborations with our network of partners in the field of cyberlaw and policy, at Harvard, nationally, and globally. We continue to pursue common projects as well as joint fellowship programs with centers in the United States, Europe, and Asia, with the goals of transferring knowledge, connecting people, and creating a human network of globally active researchers.

The collaborations we have initiated in recent years are becoming wider and deeper, and are showing great promise. Our relationship with CRCS has become natural and multifaceted, growing to include an ambitious University-wide research collaboration on privacy and cybersecurity. Through a suite of new activities related to open access issues, we plan to intensify our partnerships with HUL, HLSL, and Harvard's Office for Scholarly Communication. Domestically, our long relationship with scholars at the Georgia Institute of Technology will grow as incipient efforts examining various intersections of technology and international development come to fruition. In the context of the DPLA initiative, we will work closely with a number of institutions across the United States, including Professor Pam Samuelson's Law, Technology and Public Policy Clinic at UC Berkeley's School of Law.

At the international level, we remain close with key partners, including the NEXA Center for Internet and Society at the Politecnico di Torino, with which we are developing a shared research agenda for the next coming year; we will also welcome its director and long-standing Berkman collaborator, Juan Carlos de Martin, as a Faculty Fellow at the Berkman Center. We will continue to work closely with the Research Center for Information Law at the University of St. Gallen on annual events, research efforts, and exchanges, further facilitated by the appointment of its president Herbert Burkert as a visiting professor at HLS and Faculty Fellow at Berkman. While the tragic events of this spring have slowed efforts to further enrich our relationship with Keio University of Japan, our commitment to working together has further solidified, with Berkman Faculty Fellow Catharina Maracke facilitating the collaboration.

In addition to nurturing these well-established collaborations, we also continue to initiate new ones. For instance, we hope to extend a series of conversations with the Harvard Humanitarian Institute into more sustained interactions. While always friendly, we have recommitted ourselves to a more active engagement with the Media Lab at MIT and its Center for Civic Media, both of which are led by long-time members of the Berkman community.

C. Organizational development: Staff functions, diversity program, and converged research agenda

Over the past two academic years, we have streamlined and re-organized many staff roles and activities, leading us to function more as a networked organization while also ensuring that the underlying systems are in place to support this approach. During the next academic year, we will further improve the Berkman Center's efficiency and effectiveness. In particular, we are in the process of deploying a new project management and oversight structure to increase capacity, address specific project needs, and enable us to more effectively manage our large network of alumni and collaborators while maintaining the culture and mission that have always guided the Center.

We will also continue in our efforts strengthen and implement a sustained and integrated approach to fostering diverse participation in our work. Although we have always embraced and sought diversity across activities and communities due to a shared conviction that it is essential to accomplishing our mission, we recognize the challenge of this commitment, and have worked to develop a practical action framework for incorporating diversity considerations across our activities. In the coming years, we will implement and refine this model through efforts to attract, seek, and leverage the perspectives of people from different backgrounds, views, and experiences. Our latest classes of fellows and summer interns are notable steps in this direction, and we are eager to create many more such examples in the near future.

These organizational developments and investments, in addition to platform development and collaboration, are designed to enable and foster the next generation of innovative research, teaching, and advocacy at the Berkman Center. With an agenda as ambitious as ever, and recognizing that our research and other areas of activity will continue to be tightly linked to our organizational development, we will continue to promote these efforts towards increased complementarities that can provide even better support to our community.

III. ADDITIONAL INFORMATION: TEAM

The Berkman Center is fortunate to have an exceptionally deep, multi-disciplinary team of faculty, staff, fellows, and students who carry out its ambitious agenda.

A. Faculty

The Berkman Center is led by its active faculty, and governed by its steering committee. The Executive group consists of Prof. William Fisher, who serves as Chair, Urs Gasser as Executive Director, and Faculty Co-Directors Prof. Yochai Benkler, Prof. Charles Nesson, Prof. John Palfrey, and Prof. Jonathan Zittrain, each of whom is a director and leads specific research projects. The other members of the steering committee are Prof. John Deighton (HBS), Prof. Mark Edwards (HDS), Prof. Jack Goldsmith (HLS), Prof. Alex Keyssar (KSG), Prof. Lawrence Lessig (HLS), Prof. Charles Ogletree (HLS), and Prof. Stuart Shieber (SEAS). In January 2009, after six years as a Berkman Center fellow, Dr. Urs Gasser became Executive Director of the Berkman Center; before taking this position he was Associate Professor of Law at the University

of St. Gallen (Switzerland), where he led the Research Center for Information Law as Faculty Director.

Steering Committee:
Yochai Benkler
John Deighton
Mark Edwards
William Fisher, Chair
Urs Gasser
Jack Goldsmith
Alex Keyssar
Lawrence Lessig
Charles Nesson
John Palfrey
Stuart Shieber
Jonathan Zittrain

B. Staff

Urs Gasser, the Berkman's Executive Director, leads the Center's full-time staff, which is comprised of instructors, event organizers, communications and community-building staff, researchers, project managers, a technical team, and financial and administrative support. In the 2010-2011 academic year, our staff was comprised of the following individuals:

Executive Director: Urs Gasser
Managing Director: Colin Maclay
Research Director: Rob Faris
Clinical Program Director: Phil Malone
Office Manager: Carey Andersen
Program Coordinator: Amar Ashar
Clinical Program Assistant Director and Clinical Instructor: Christopher Bavitz
Junior Systems Administrator: Justin Clark
Co-Director, Law Lab: John Clippinger
Systems Administrator: Dan Collis-Puro
Senior Systems Administrator: Sebastian Diaz
Project Manager, Internet & Democracy: Bruce Etling
Financial Associate/Law Lab Coordinator: Karyn Glemaud
Project Coordinator, Digital Public Library of America, Blogging Common, mGive, IWPR: Rebekah Heacock
Digital Media Producer: Dan Jones
Lead Engineer, Media Cloud: David Larochelle
Project Manager, Herdict, Broadband, H2O, Cooperation: Laura Miyakawa
Financial Manager: Jon Murley
Project Manager, Law Lab, Global Network Initiative, Interoperability,Cloud Computing, Privacy and Security: Caroline Nolan
Project Coordinator, Interoperability, Cloud Computing, Privacy and Security: David O'Brien

Junior Web Developer: Anita Patel
Desktop Support Specialist: Ed Popko
Clinical Program Assistant Director and Clinical Instructor: Dena Sacco
Community Coordinator: Rebecca Tabasky
Project Manager, OpenNet Initiative, Circumvention, Surveillance, DDoS: Jillian York
Communications Manager: Seth Young

To note, all three of our new full-time hires this year—Justin Clark, Rebekah Heacock, and David O'Brien—worked for the Berkman Center as interns prior to being hired into staff roles.

Additionally, tremendous support and contributions have been made by a number of key project fellows, including David Ardia (DMLP), Sandra Cortesi (Youth and Media), Jeff Hermes (DMLP), Maura Marx (DPLA), and Andy Sellars (DMLP), along with a number of key part-time researchers, including: Arthur Bright, Nathaniel Levy, Momin Malik, Joey Mornin, and Molly Sauter.

C. Berkman Center Organizational Chart

D. Fellowship Program

Berkman Center research fellows are integral to all of our efforts. In choosing our fellows, we emphasize diversity of discipline and perspective; fellows who are able to work effectively as part of an intellectual community; and practitioners as well as theoreticians—unusual people who are not ordinary academics. Highlights from our 2010–2011 fellows community can be found in the Independent Scholarship section above.

We seek a community of fellows that are able to complement the Center's team as a whole. We spend a considerable amount of time each year conducting outreach, reviewing applications, interviewing candidates, and making difficult selection decisions.

Applications for selection into our 2011–2012 fellowship program continued to increase this year, with over 150 applicants submitting full sets of materials for review through our yearly calls for applications and over 100 additional applications submitted through the human resources interface for specific employee fellowship openings.

Our incoming class represents scholars and practitioners from range of disciplines, at different stages in their careers, and as part of our ongoing effort to internationalize our community, the incoming class of fellows represents over a dozen countries.

2010-2011 Berkman Fellows:

David Abrams
Bradley Abruzzi
Mike Ananny
David Ardia
Chris Bavitz
Jim Bessen
Glenn Otis Brown
Sandra Cortesi
Sasha Costanza-Chock
Judith Donath
Donnie Dong
Yashomati Ghosh
Oliver Goodenough
Eszter Hargittai
Jeff Hermes
Jeffrey Huang
Jason Kaufman
Brian Kernighan
Kim Isbell
Catharina Maracke
Maura Marx
Julio Ortiz
Dave Rand

Joseph Reagle
Hal Roberts
Dena Sacco
Jeffrey Schnapp
Aaron Shaw
Clay Shirky
Tom Stites
Peter Suber
Toshie Takahashi
Doreen Tu
Hugo Van Vuuren
Kevin Wallen

New 2011–2012 Berkman Fellows:

Dalida Maria Benfield, a Ph.D. candidate in Ethnic Studies at the University of California-Berkeley, will examine the rhetorical uses of race and gender in contemporary discourses of Information and Communication Technology for Development.

Harris Chen, of the Ministry of Justice in Taiwan, handles cases relating to IP crimes, sexual crimes, and drug trafficking and will spend his time developing his research on cyberlaw.

Tyng-Ruey Chuang, an associate research fellow at the Institute of Information Science, Academia Sinica, Taipei, will research the architectures and norms of online social networks and organizations.

Beth Coleman, an assistant professor of writing and new media at MIT, will look at the impact of networked social media platforms on collective action.

Juan Carlos De Martin, co-director of the NEXA Center for Internet & Society at Politecnico di Torino, will work on the future of universities in the networked age, with a focus on their role in cyberspace.

Mayo Fuster Morell, who recently concluded her Ph.D. thesis at the European University Institute in Florence, will develop her research on the governance of commons-based peer production and on the free culture movement.

Alison Head, of the Information School at the University of Washington, will explore what happens to “Born Digital” students after college.

Jerome Hergueux, a Ph.D. candidate in economics at Sciences Po Paris, will develop new interactive survey methods to uncover the foundations and dynamics of interactions and behavior in online social spaces.

Felipe Heusser, a Ph.D. candidate in government at the London School of Economics, will work on his doctoral thesis, "Freedom of Information (FOI), a closer look from Regulations, Institutions and the Internet."

Benjamin Mako Hill, a Ph.D. candidate in management and media arts and science at MIT, will explore the question, why do some peer production projects successfully attract contributors while most do not?

Vivek Kundra will collaborate with the Center in its research activities in the areas of cloud computing, open data, and open government.

Catalina Laserna, a lecturer on anthropology at Harvard, will work on writing a book on her theory of "cybercy"—how the affordances of digital media transform learning and enable deep understanding in preexisting oral and literate traditions.

Kevin Lewis, Ph.D. candidate in the Department of Sociology at Harvard, will examine patterns of mate choice in online dating.

Betsy Masiello, from Google, will research the practical applications of predictive analytics and the ethics surrounding their use.

Giuseppe Mazziotti, an assistant professor in intellectual property law at the University of Copenhagen, will conduct research on intellectual property infringement cases against Google in Europe.

Musician **Erin McKeown** will work to connect the worlds of policy, art, and technology while considering questions about how to make a creative life a viable vocation.

Andres Monroy-Hernandez, a Ph.D. candidate at the MIT Media Lab and a soon-to-be postdoctoral researcher at Microsoft Research, will study the design of sociotechnical systems that support amateur collaboration in online communities.

Intisar Rabb, an assistant professor at Boston College Law School and faculty affiliate in research at the Islamic Legal Studies Program at Harvard Law School, will work with a team to develop *islawmix*, a project aimed at connecting news readers, media producers, and legal scholars with credible, authoritative information about trends in Islamic law.

Justin Reich, a doctoral student at the Harvard Graduate School of Education, will continue his work with the Distributed Collaborative Learning Communities Project team to develop metrics of quality in wiki learning environments, and then use those metrics to identify teacher practices and school resources that predict high quality learning environments.

Jennifer Shkabatur, an S.J.D. candidate at Harvard Law School, will study online citizen participation in administrative agencies.

Dennis Y. Tenen, who will join the Columbia University English faculty in 2012-2013, will research online communities and the ways in which they create cultural capital.

Zeynep Tufekci, who will be an assistant professor at the University of North Carolina, Chapel Hill, will focus on the relationship between changing means of connectivity and the dynamics of social change, especially in light of the uprisings in the Middle East and North Africa.

Jia Wang, former department director of Open Constitution Initiative in China and current L.L.D. candidate at Stellenbosch University in South Africa, will conduct research on the development of the public sphere in cyberspace and its impact on the political ecology in China.

2010–1011 fellows returning for 2011–2012 include: David Abrams, Brad Abruzzi, Mike Ananny, Sandra Cortesi, Sasha Costanza-Chock, Judith Donath, Oliver Goodenough, Eszter Hargittai, Jeff Hermes, Catharina Maracke, Maura Marx, Hal Roberts, Jeffrey Schnapp, Aaron Shaw, Hugo Van Vuuren, and Kevin Wallen.

In addition to fellowships, we also have two additional affiliations: Fellowship Advisory Board member and Faculty Associates.

Fellowship Advisory Board (FAB)
This board was established for exceptional former fellows who have sustained their bright and sharp contributions to the Center over many years across new projects, technologies, and people. The 2010–2011 members of the FAB are continuing their role in the 2011–2012 year. They are:
Wendy Seltzer
Jake Shapiro
David Weinberger
Ethan Zuckerman

Faculty Associates
This affiliation is for colleagues who have a faculty position and with whom we are jointly committed to building or maintaining a relationship. This category of affiliation allows us to explore opportunities for continued and future collaboration over a given academic year and provides one avenue through which we can build relationships across institutions.

The Faculty Associates for the 2011–2012 academic year are:

David Ardia (Assistant Professor, University of North Carolina School of Law, and co-director of the UNC Center for Media Law and Policy)
Fernando Bermejo (Associate Professor of Communication, Universidad Rey Juan Carlos, Madrid, Spain)
James Bessen (Lecturer in Law, Boston University School of Law)
Michael Best (Nunn Security Mid-Career Fellow and Assistant Professor jointly appointed to the Sam Nunn School of International Affairs and the College of Computing, Georgia Institute of Technology)
Dan Gillmor (Director of the Knight Center for Digital Media Entrepreneurship, Walter Cronkite School of Journalism and Mass Communication, Arizona State University)

Matthew Hindman (Assistant Professor, Political Science Department, Arizona State University)
Jeffrey Huang (Professor, Department of Architecture and in the Faculty of Computer and Communication Sciences, Ecole Polytechnique Fédérale de Lausanne Switzerland)
Lewis Hyde (Richard L. Thomas Professor of Creative Writing, Kenyon College)
Beth Kolko (Associate Professor, Department of Technical Communication, University of Washington)
Karim Lakhani (Assistant Professor, Technology and Operations Management Unit, Harvard Business School)
Harry Lewis (Gordon McKay Professor of Computer Science, Harvard College)
Wayne Marshall (Teaching courses at Brandeis University and University of Massachusetts Boston)
Claire McCarthy (Assistant Professor in Pediatrics, *Harvard Medical School)*
Miriam Meckel (Professor, Corporate Communication, University of St. Gallen, Switzerland)
Mica Pollock (Assistant Professor, Harvard Graduate School of Education)
Joseph Reagle (Teaching courses at Northeastern University)
Christian Sandvig (Associate Professor in Communication, University of Illinois at Urbana-Champaign)
Clay Shirky (Associate Arts Professor, Interactive Telecommunications Program, New York University)
Eric von Hippel (Professor and Head of the Innovation and Entrepreneurship Group, Sloan School of Management, Massachusetts Institute of Technology)

Student Involvement. One of the great strengths of the Berkman Center is the active involvement of an exquisitely talented group of students. Over the course of a calendar year, hundreds of students are actively engaged in our research programs. For details, see the student involvement section under Teaching, above.