"Exploring the Possibilities of Technology"[1]

Technology is bringing changes in our personal, civic, and professional lives – some welcome, some not. We have faster access to more data and can communicate more quickly with a wider audience. We are exposed to a broader range of opinion and thought, and can choose to engage with it at greater personal convenience.

But sometimes we can feel overwhelmed by the amount of information. We have questions about its accuracy. We wonder how new technology will affect institutions and decision making processes that we trust. And we have a breathless sense that the rate of technological change may accelerate faster than our capacity to comprehend its effects.

Over the last few years, the Board and staff of the MacArthur Foundation have been exploring the implications of the digital age. We are engaged in a continuous and purposeful meditation on technological innovations and their possibilities for all the work we do.

Our working hypothesis is that the digital revolution will rank with the invention of the printing press, the telephone, and the automobile as technologies that initiated transformative moments in modern history. It will take a while to appreciate this fully and adjust to the profound impact of the digital age. And it will take concerted effort.

While it is common these days to marvel at the effects of technology on our lives, the scale and scope of the changes may be even greater than we realize. Consider these arresting data points:

- The power of computers will continue to double every two years or so into the foreseeable future.

- There are over 1 billion Internet-users worldwide – a number expected to double in the next five years.

- One-third of American homes have broadband Internet access. Rates are even higher elsewhere: half of Japanese households and two-thirds of South Korean homes have broadband, at more than ten times the speed of the average US connection.

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[1] This essay will focus on the effects of digital technology and its use by our grantees. By "digital technology" I have in mind applications and devices made possible by the use of electronic technology that generates, stores, and processes data in bit form (that is, as a string of 0's and 1's). I also refer to the broad array of associated innovations that have revolutionized the way digitized data is stored, shared, processed, manipulated, and produced – computing, satellite, wireless, cellular, and fiber optic technologies, among others.
I will describe the cumulative effect of new technologies on our lives, I do not presume that each reader is familiar with every aspect of them.

- There are over 75 million sites on the WorldWideWeb; 17.5 million new websites were created in 2005.

- There are over 30 million active blogs worldwide; some 75,000 more are added each day.[3]

- In 2002, more than five exabytes of information were produced throughout the world – the equivalent of 37,000 Libraries of Congress.

- There are nearly 2 billion cell-phone users worldwide, which means that almost one-third of the global population has a mobile phone.

The purpose of this essay is to describe how the MacArthur Foundation is approaching the challenges posed by these changes. We are especially interested in the effects that digital technologies are having on the way people think, learn, acquire and evaluate information they need. We want to know more about the influence of technology on the way people make judgments, interact, and form communities. And we want to understand how these technologies affect the way all of us understand and exercise democratic rights and responsibilities. The answers to these questions have important implications for most MacArthur programs, but especially for two areas of work where we have been active for decades: education and the media.

The Foundation is also examining how digital and other technologies can advance its program strategies, whether building healthy urban communities in the United States, protecting the environment in Peru, or advancing human rights in Africa. Quite deliberately, we have been supporting individuals, organizations, and institutions that are using new technology to improve the quality, scope, and impact of their work.

Here are some characteristics of this new age that have relevance for us.

- Information flows more freely from diverse sources and remote places. We need help in judging its credibility and finding the knowledge we seek.

- The new age requires multiple forms of intelligence: visual literacy and critical thinking are more important than ever.

- The volume and variety of information available puts a premium on the human capacity to synthesize and juggle multiple tasks.

- People now learn more by doing – and from each other – than previously. Today's students expect more interaction, experimentation, and exchange. Our schools and universities, teachers and professors, must be prepared to meet these expectations.

- Traditional norms, personal identity, and accepted political units do not always carry into in cyberspace, raising questions about social interaction, trust and governance, accuracy and value. We expect choices that are not always mediated by an acknowledged authority or institution.

- While our capacity to communicate has increased exponentially, having the ability to individualize our news experiences may narrow, rather than broaden, exposure to diverse ideas.

In this essay, I will describe how MacArthur's approach to major programs in education and media is being recast. Then I will discuss how technology is advancing existing strategies across the full spectrum of MacArthur's work worldwide, offering examples from our programs in the environment, population and reproductive health, and urban revitalization, among others.

Digital Media, Learning, and Education

The most dramatic break with MacArthur's past comes in the field of education. Like many other foundations, MacArthur has invested heavily in efforts to reform public school systems as we know them. That remains a worthy objective and the Foundation will continue to work with the Chicago Public Schools as part of a comprehensive effort to revitalize neighborhoods in our hometown. Going forward, however, MacArthur's major focus in education will be called Digital Media, Learning, and Education.[5]

We assume that young people are acquiring knowledge, analytical skills, and values during their use of digital media outside of school. 83 percent of young people between the ages of 8 and 18 play video games regularly. 72 percent use instant messaging. On a typical day, more than half of US teenagers use a computer and more than 40 percent play a video game. Using websites like MySpace and Xanga, young people are sharing photos, videos, music, ideas, and opinions online, connecting with a large group of peers in new and sometimes unexpected ways.

We want to understand these phenomena better. What are the effects of digital media on how young people learn? What are the implications for education and other cultural and social institutions?

We begin with a hypothesis to be tested:

> Digital media has advanced significantly in recent years and enables new forms of knowledge production, social networking, communication, and play. Through digital media, young people are engaged in an unprecedented exploration of language, games, social interaction, and self-directed education that supports

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[2] John Seely Brown has been a member of MacArthur's Board since 2000. His work and writings have stimulated much of this thinking. For this essay, I draw on his speech at the 1999 Conference on Higher Education of the American Association for Higher Education, "Learning, Working & Playing in the Digital Age," and his article, "Growing Up Digital: How the Web Changes Work, Education, and the Ways People Learn," *Change*, March/April 2000, pp. 10-20.

learning. They are different as a result of this exposure to and experience with digital media and these differences are reflected in their judgment, sense of self, how they express their independence and creativity, and in their ability to think systematically. [6]

The aim of MacArthur's new initiative in digital education is two-fold. First, we want to explore how young people are actually incorporating digital media in their daily lives and to gauge the effects. Second, we want to help them navigate, judge, and learn to use digital information and tools – in school and beyond.

Although decent information exists about the number of young people using technology, much less is known about how they are using it, how they think about it, and what it means to them. To help fill these gaps in our knowledge, MacArthur is funding several research projects.

A large-scale ethnography of young people is underway at the School of Information Management and Systems at the University of California Berkeley and the Annenberg Center for Communications at the University of Southern California. The study will provide a broad portrait of the digital generation: technology's influence on their social networks and peer groups, their family life, how they play, and how they look for information. A companion grant to the Institute for Civic Leadership at Mills College funds an examination of civic commitments and engagements. Little is currently known about whether, when, or how digital media influences young people's civic identities. Does participation in virtual communities lead to broader civic and political activity, or do such communities divert young people from engaging in public life? Together, these projects represent the most significant, coordinated attempts yet made to explore the influence of digital media on youth.

We expect this data to shape a full agenda of future research. What is the role of video gaming and play in learning? What are the unintended consequences of using digital media? How do young people judge the credibility of information? How do digital media influence national citizenship and global awareness? What effect does using digital media have on individual identity and on notions of race and ethnicity? The MacArthur Series in Digital Media – run jointly by the New Media Consortium and the Monterrey Institute for Technology and Education – will help build the field of digital education by publishing edited volumes in print and electronic form on these questions, and by hosting conferences and online events.

We already know that one of the most important challenges is how to help young people learn to evaluate information they obtain online or through other forms of media. Research MacArthur funded at the American Library Association shows that young people most often judge a Web site's information by the quality of its design and the speed of its response. Even well-educated adults often neglect to ask key questions about the source of information and its accuracy, when it was produced, if it is still up-to-date, and the likely motivation of the author.

MacArthur is exploring tools that will help adults assess the quality of information on the Internet, but a long-term approach also requires teaching media literacy to young people. The Foundation's initiative on digital learning is helping identify the critical skills that are needed and testing ways to cultivate them.

With MacArthur assistance, Professor Henry Jenkins and colleagues in the Comparative Media Studies Department at MIT are studying media literacy, exploring ways to teach it in the classroom and through after-school activities. The aim of the MIT project is to help young people learn how to filter, judge, synthesize, and use information available on the Internet and from other sources.

One of the MIT project's boldest suggestions so far is that the best way to teach such media literacy might be through instructing young people how to make their own digital creations, including blogs, pod- and videocasts, and games. Building on this insight, the Academic Advanced Distributed Learning Co-Laboratory at The University of Wisconsin-Madison is developing "Game Designer," a software application for young people. As students use it to create games, they learn about ethical judgment, aesthetic design, systemic thinking, and collaborative problem solving.

New curricula are also being produced to help incorporate digital media into classrooms. A grant to the Center for Urban School Improvement at the University of Chicago is helping MIT test and implement its ideas in new charter schools being opened on Chicago's south side, existing public schools, and in after school programs. Ultimately we expect the Center's programs to serve as national models for media literacy programs for middle and high school youth.

Digital tools will not replace the book, paper and pen, face to face interaction, or all the other ways that we socialize, learn, and communicate. But they are taking their place along side these other means and modes of education, and they are changing the way young people are learning and how they expect to be taught. The net-effect of these technologies is to make learning more participatory, at once more self-directed and more collaborative. Students today need to be more skeptical of what they see and hear, more willing to ask questions, more active in synthesizing what they find, and more creative in what they design, build, and produce. Such changes may be driven by technology and its effects, but ultimately they also require a shift in the paradigm for teaching and learning. MacArthur's work in education aims to help students, parents, schools, and communities adapt to a new reality.

Media Grantmaking
When MacArthur began its media program 22 years ago, most Americans relied on the broadcast media. With that in mind, we decided to support high-quality non-fiction programming for television, documentary films, and the infrastructure of public radio.

Our underlying assumption was that the public needs reliable information in order to make good judgments as individuals and as citizens.

We still believe this. But news gathering, reporting, and broadcasting are being fundamentally changed by digital technologies. Sources of information have become far more plentiful and the methods of access have proliferated. 90 percent of American homes choose from hundreds of television and radio channels on cable and satellite. An explosion of Internet video and audio has added thousands of programming choices, accessible from around the world. Video-ready cell phones, audio and video iPods, digital video recorders, satellite radio, and – of course – personal computers allow audiences to craft more individualized news and entertainment experiences,

choosing what they want to see or hear and when they want it.

These technologies have not only made accessing diverse kinds of information more convenient. They have also made it easier to produce and distribute creative content, with a far larger potential audience. The barriers to entry for potential producers have been greatly reduced: anyone with a computer can establish a website, start a blog, or record a podcast. The costs of shooting and editing a film or video have also declined, and professional-quality equipment is far more available than in the past.

As a result, new creators and commentators – often amateurs – are distributing material on the Internet and reaching a wide audience more directly. "Citizen journalists" around the globe are taking advantage of these tools to complement, correct, and even compete with professional journalists and investigative reporters.[3] This participatory journalism allows citizens to play an active role in the process of collecting, reporting, analyzing, and disseminating news and information.

With these changes, the challenge of providing individuals with diverse perspectives and reliable information is more complex than in the past, precisely because the tools available are so much more powerful. We enjoy unprecedented access to data, analysis, and opinion from around the world, but this also requires greater effort to filter, choose, and process such information.

In light of these developments, MacArthur's long-standing programs supporting documentary film and public radio and television are in transition. We still want to help ensure that reliable information on important topics is available and that it finds the audience it deserves.

And we want to help bring fresh sources of information to bear on the debate of important issues.

MacArthur will continue to support the creation of exceptional documentary films and high-quality non-fiction programming for public radio and television. But to take full advantage of new technologies, the Foundation is challenging content-producers to tell their stories through more than one medium -- radio and podcasting, for example; or documentary film and streaming video. We are especially interested in projects that invite significant participation from their audiences.

A few recent grants illustrate this transition underway.

FRONTLINE/World is a national public television series that features short documentaries about underreported countries and cultures. Its correspondents use portable digital cameras to observe and record people and events in remote places, often in greater depth than mainstream American press. Topics have included the 8,000 Kurdish men and boys who went missing in the early years of Saddam's rule; the conflict between indigenous people and diamond miners in Brazil's Amazon rain forest; and Iran's nuclear capabilities.

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[3] "Citizen journalism," also known as "participatory journalism," is produced by non-professional individuals who collect, report, analyze, and disseminate news and information.

FRONTLINE/World is one of the few public television producers that is truly integrating broadcast and online content. The television series is complemented by a web site that contains original reporting, interviews, reporter diaries, and related articles. The documentaries themselves can be viewed over the Internet as well. Visitors are encouraged to react to the stories and post their comments, which often lead to rich, online discussions. With more than half a million monthly visitors, FRONTLINE/World reports that its web presence drives people to the television broadcast – typically, the opposite is true.

Our ultimate goal is to help bring diverse sources of information to a broader public, so some of the projects we fund use technology to expand the audience for traditional programming. For example, Public Radio Exchange (PRX) is a web-based marketplace for stories and programs produced for public radio. Producers anywhere may add their audio files to the PRX catalogue, and then radio station programmers may sample, purchase, and download those they like. If a programmer decides to buy a piece for broadcast, the producer receives a royalty. PRX helps level the playing field for independent radio producers by allowing anyone to join and sell their stories online. And it gives radio station programmers in large and small markets access to a much wider variety of content with relative ease and little added cost.

The Foundation is also interested in innovative work being produced by non-professional journalists using "citizens' media" – blogs, audio and digital podcasts, digital video. We are seeking ways to make this work more readily available and more useful to broader audiences.

For instance, Harvard Law School's Berkman Center sponsors *Global Voices*, a website that calls attention to the most interesting conversations and perspectives emerging from citizens' media around the world. *Global Voices* is a compilation of carefully selected blogs that highlight citizen journalists across the globe. A team of blogger-editors identifies and tracks a set of global conversations every day, writing daily posts summarizing what the blogging communities in their countries have been talking about recently. These provide links to interesting content produced by individuals on every continent.

On one day in March, visitors to the website could read bloggers in Iraq discussing the effect of a daytime curfew on their lives and commented on the growing importance of local militias following the attack on the al-Askari Mosque in Samarra. Another thread of discussion featured Kurdish voices throughout the Middle East, combining blogs from Turkey, Northern Iraq, Iran, and Syria. Meanwhile a number of Chinese bloggers discussed Internet censorship in their country: how extensive it actually is, when they are able to get around filters (and when they are not), and whether all censorship is bad. These kinds of citizen-commentators help provide uncommon insight into the developing world and can balance or enrich what is reported in the mainstream media.

This is a vibrant time of change and experimentation. The digital age is also an information age, characterized by immense diversity, greater access, and more convenience. Amidst the proliferation of choices, MacArthur intends to assist users take full advantage of opportunities to stay informed and get involved. We want to help provide citizens with high-quality information that informs, educates, and provokes reflection -- in formats and platforms that make optimal use of new and

old technologies, combining the benefits of professional production and citizen participation. Helping harness new media for the public good – that is our aim.

Applying Technology to Make a Difference
So far, I have described MacArthur programs that are being changed rather significantly. But MacArthur has also been considering how a range of technologies – both simple and complex – might amplify or enhance the work of grantees in all our fields of work.

Over several years, we have tried to identify groups or projects that use technology in highly innovative and productive ways. There is not enough space to discuss all of them in this annual report; an illustrative list of technology-related grants follows this essay. However, the projects I have in mind tend to use technology in a few key ways.

- They improve the quality of information and analysis by combining new techniques for gathering, processing, and storing data;
- They make good information widely available to the public, often from or in remote places; and
- They facilitate citizen engagement by improving the ability to communicate.

Information and Analysis
Using technology to improve the quality of information and analysis that is available on critical problems has been especially relevant for MacArthur grantees working on biodiversity conservation. MacArthur's conservation program aims to protect land- and seascapes of exceptional biodiversity in nine "hotspots" in the developing world.

Substantial progress has been made in places like Bhutan, Madagascar, Vietnam, and Brazil in creating national parks and protected areas. But encroachment from agricultural, mining, and timber activities still occurs.

Until recently, monitoring from satellites only revealed advanced de-forestation. But now the Carnegie Landsat Analysis System can detect degradation at an earlier stage. It combines widely available satellite data with advanced signal processing, computational modeling, and pattern recognition methods to improve the detection of forest disturbances at very high spatial resolution over millions of square kilometers of tropical forest.

Tests of the system in the Brazilian Amazon uncovered <u>twice</u> the amount of forest degradation reported by previous deforestation studies, which had relied on satellite data alone. By bringing together a suite of new techniques for measuring environmental changes, the Carnegie System gives an early warning of dangerous activities that can alert institutions in time to save important landscapes.

Improving Communication
Technology also makes it possible to uncover and distribute information in remote places and to isolated communities. In the field of population and reproductive health, for example, it is an enduring challenge to provide accurate, timely information about healthcare

and services to women and men in rural areas. New communications technologies can help.

MacArthur has supported organizations working on population issues for over two decades. Today, our programs focus on reducing maternal mortality and on providing young people good information about reproductive health and services. We place special emphasis on three countries where we have offices – Mexico, India, and Nigeria – countries where rural areas are especially isolated from urban centers and knowledge about reproductive health is low.

An organization called OneWorld is using communications technology to help bridge the urban/rural divide, beginning in Africa. In Kenya, a pilot project called Mobile4Good uses cellular technology to spread health-related news and education. Mobile4Good sends text messages to personal cell-phones to inform individuals about opportunities for free exams or treatment. It also provides a question and answer service that allows individuals to ask sensitive health questions in private. This has proven especially effective among young people.

Mobile4Good shows great potential for expansion into countries where mobile phone use is high. Because Nigeria one of the fastest growing cell phone markets in Africa – and one of our focus countries – MacArthur is supporting a new Mobile4Good project there. Information about reproductive health and services will be delivered via portable phones to young Nigerians living in both urban and rural areas.

Citizen Engagement

Facilitating citizen engagement is another area where technology can play an important role.

In Chicago, MacArthur and the Chicago affiliate of the Local Initiatives Support Corporation (LISC) have undertaken a comprehensive initiative to revitalize 16 neighborhoods (about half of Chicago's low-income communities). In each neighborhood, a local development organization is taking the lead to address housing, economic development, public safety, jobs, and more.

Encouraging residents to participate in the life of their community is essential to revitalizing urban neighborhoods. A grant to the Northeastern Illinois Planning Commission supports the Full Circle Project, which trains community residents to use handheld devices to collect information about neighborhood conditions and monitor progress in their communities.

Through the project, residents can report signs of neglect like trash on the streets, broken windows, abandoned cars, or vacant buildings. They can also collect information on the availability of commercial space, retail possibilities, and opportunities for housing development. The handheld devices add this material to existing data systems used by local and

city officials. It can be consulted immediately and it is often accessible on the Internet.

Making good information widely available, monitoring conservation practices, and engaging citizens in improving their neighborhoods – these are some of the ways MacArthur grantees are using technology to advance our program goals.

We encourage those with creative ideas on the use of technology to approach us for a conversation.

The MacArthur Foundation's embrace of technology is not uncritical. Some of our grants address the consequences of less time to reflect, the rapid spread of misinformation, the possibility that information overload drives people to intuition and inherited orthodoxies rather than reasoned discourse. But it is fair to say we are more optimistic than pessimistic about the possibilities of technology. And in any event, we take its existence as a given to be harnessed and shaped.

We imagine a future where children learn through active creation that honors visual as well as written forms of expression. We see a time when people of all ages learn more on their own initiative, assisted by institutions that adapt to a new reality. We take heart from the prospect of quality information flowing from remote parts of the world, more attention given to understudied issues, a greater diversity of voices being heard. We hope that the democratic process is more widely shared and reinvigorated by more robust citizen participation within nations and across national boundaries. We will work to enhance the opportunity of individuals to realize their potential and for communities to grow stronger and more just. While changes in our program will be gradual, we expect to be a very different Foundation in a few years.

– Jonathan F. Fanton

Select Examples of MacArthur Technology Grants 2001–2005

DIGITAL MEDIA, LEARNING, AND EDUCATION

Media Literacy

CENTURY FOUNDATION, *Washington, DC*
$50,000 for a project on the use of digital communications technologies in education, the arts, and civic life. www.tcf.org

GLOBAL KIDS, *New York, NY*
$170,000 in support of building the field of digital media and learning by engaging young people in online discussions and written essays about their use of digital media. www.globalkids.org

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, COMPARATIVE MEDIA STUDIES, *Cambridge, MA*
$500,000 to develop a conceptual framework, website, and approach with models for achieving a new kind of digital media literacy among young people. web.mit.edu/cms

TECHNICAL EDUCATION RESOURCE CENTERS, *Cambridge, MA*
$239,000 in support of efforts to improve classroom instruction through the use of digital technologies. www.terc.edu

UNIVERSITY OF CHICAGO, CENTER FOR URBAN SCHOOL IMPROVEMENT, *Chicago, IL*
$250,000 to support a pilot after-school media literacy program. www.usi.uchicago.edu/aboutnew.html

UNIVERSITY OF WISCONSIN, *Madison, WI*
$1,200,000 in support of the design and development of innovative game modules, curriculum, and tools to support young people's media literacy (over three years). www.wisc.edu

MILLS COLLEGE, *Oakland, CA*
$450,000 in support of a longitudinal quantitative study of the effect of digital media on young people's current and future civic commitments and engagements (over three years). www.mills.edu/ICL

MONTEREY INSTITUTE FOR TECHNOLOGY AND EDUCATION, *Monterey, CA*
$575,000 to build the field of digital media and learning through papers, on-line discussions, and edited volumes on a variety of topics (over eighteen months). www.miis.edu

NEW MEDIA CONSORTIUM, *Austin, TX*
$17,500 to complete a literature review, monograph, and communications activities exploring visual and digital literacy in higher education. www.nmc.org

NEW MEDIA CONSORTIUM, *Austin, TX*
$575,000 to build the field of digital media and learning through papers, on-line discussions, and edited volumes on a variety of topics (over 18 months). www.nmc.org

UNIVERSITY OF CALIFORNIA, BERKELEY SCHOOL OF INFORMATION MANAGEMENT AND SYSTEMS, *Berkeley, CA*
$1,954,000 in support of a multi-site ethnographic study of how young people use digital media, and to what effect (over three years). www.sims.berkeley.edu

UNIVERSITY OF SOUTHERN CALIFORNIA, ANNENBERG CENTER FOR COMMUNICATION, *Los Angeles, CA*
$1,346,000 in support of a multi-site ethnographic study of how young people use digital media, and to what effect (over three years). www.annenberg.edu

Research

BLUEPRINT RESEARCH & DESIGN, *San Francisco, CA*
$80,000 in support of field building, strategic planning, and analysis of trends in innovation, the development of expertise, and in distribution in digital media and learning. www.blueprintrd.com

EXPLORATORIUM, *San Francisco, CA*
$220,000 in support of research and analysis to explore digital media and learning among youth. www.exploratorium.edu

MEDIA

Documentary Film

AMERICAN DOCUMENTARY, INC., *New York, NY*
$1,500,000 in support of P.O.V. (Point of View), a documentary series for public television (over three years). www.pbs.org/pov

AMERICAN UNIVERSITY, SCHOOL OF COMMUNICATION, *Washington, DC*

$100,000 in support of a project to document and disseminate a collection of best practices that would help guide the use of copyrighted materials in new documentary film productions.
www.centerforsocialmedia.org/fairuse.htm

ARTS ENGINE, *New York, NY*

$50,000 in support of MediaRights.org, an educational and outreach website for social issue filmmakers and community groups. www.mediarights.org

ARTS ENGINE, *New York, NY*

$180,000 in support of MediaRights.org, an educational website for social issue filmmakers and nonprofit organizations (over three years). www.mediarights.org

CENTER FOR INVESTIGATIVE REPORTING, *Berkeley, CA*

$75,000 to support preliminary research for a documentary film exploring the debate over protecting intellectual property. www.muckraker.org

DIGITAL INNOVATIONS GROUP, *New York, NY*

$50,000 in support of a project to encourage collaboration among independent filmmakers and digital artists. www.digereactive.com

DIGITAL INNOVATIONS GROUP, *New York, NY*

$100,000 in support of Crossover, a project designed to introduce interactive digital technologies to documentary filmmakers. www.digereactive.com

DUKE UNIVERSITY, SCHOOL OF LAW, *Durham, NC*

$50,000 in support of the distribution of a comic book about fair use and documentary film in the digital age. www.law.duke.edu

GLOBALVISION, *New York, NY*

$75,000 in support of "Hole in the Wall", a documentary film about information technologies and the changing global economic order.
www.globalvision.org/program/how/how.html

INDEPENDENT INITIATIVE, *San Francisco, CA*

$50,000 in support of a planning process to help independent filmmakers prepare for a changing media environment.
www.kqed.org/tv/indieproducers/independent-initiative.jsp

Public Media/Citizen Journalism

INDEPENDENT WORLD TELEVISION, *New York, NY*

$150,000 in support of a feasibility and planning study. www.iwtnews.com/home

LINK MEDIA, *San Francisco, CA*

$2,500,000 in support of a non-commercial television channel with international content. www.linktv.org

NEW YORK UNIVERSITY
DEPARTMENT OF JOURNALISM, *New York, NY*

$210,000 in support of the exploratory phase of a project to engage citizens as both participants in and funders of journalism. www.journalism.nyu.edu

ONE WORLD INTERNATIONAL FOUNDATION, *London, United Kingdom*

$250,000 in support of the OneWorld Network, including oneworld.net, tv.oneworld.net, and us.oneworld.net (over two years). www.oneworld.net

PUBLIC BROADCASTING SERVICE, *Alexandria, VA*

$118,000 for a planning process on strategies to strengthen public television. www.pbs.org

RADIO BILINGUE, *Fresno, CA*

$25,000 in support of an Internet feasibility study. www.radiobilingue.org

SOUND PORTRAITS PRODUCTIONS, *New York, NY*

$75,000 in support of StoryCorps, an oral history project. www.storycorps.net

SOUND PORTRAITS PRODUCTIONS, *New York, NY*

$50,000 in support of StoryCorps, an oral history project. www.storycorps.net

STATION RESOURCE GROUP, *Takoma Park, MD*

$350,000 in support of the Public Radio Exchange (over three years). www.prx.org

UNIVERSITY OF NORTH CAROLINA PRESS, *Chapel Hill, NC*

$225,000 in support of the Caravan Project, a multimedia book publishing demonstration project. www.uncpress.edu

UNIVERSITY OF PENNSYLVANIA, ANNENBERG SCHOOL FOR COMMUNICATION, *Philadelphia, PA*

$25,000 in support of the conference "The Hyperlinked Society: Questioning Connections in the Digital Age." www.asc.upenn.edu

University of Southern California, Annenberg Center for Communication, *Los Angeles, CA*
$500,000 for a project to create the Institute for the Future of the Book (over two years). www.annenberg.edu

WGBH Educational Foundation, *Boston, MA*
$1,000,000 in support of the Digital Opportunity Fund (over three years). www.wgbh.org

WGBH Educational Foundation, Frontline, *Boston, MA*
$800,000 in support of FRONTLINE/World, a global news documentary series on PBS (over two years). www.pbs.org/frontline

WGBH Educational Foundation Frontline, *Boston, MA*
$500,000 in support of FRONTLINE/World (over two years). www.pbs.org/frontline

Intellectual Property and the Public Domain

Policy Analysis

American Association for the Advancement of Science, Science and Human Rights Program, *Washington, DC*
$600,000 in support of a policy project on science and intellectual property (over three years). www.aaas.org

American Library Association, Office for Information Technology Policy, *Washington, DC*
$630,000 for a project on the implications of digital copyright for libraries and their patrons (over three years). www.ala.org/oitp

American Library Association, Office for Information Technology Policy, *Washington, DC*
$630,000 in support of a project on the implications of digital copyright for libraries and their patrons (over three years). www.ala.org.oitp

Center for Democracy and Technology, *Washington, DC*
$250,000 for a project to establish a balanced approach to copyright protection. www.cdt.org

Center for Democracy and Technology, *Washington, DC*
$600,000 in support of a project to help establish a balanced approach to copyright protection (over three years). www.cdt.org

Center for Democracy and Technology, *Washington, DC*
$250,000 in support of the Security, Freedom and Technology Project. www.cdt.org

Center for Digital Democracy, *Washington, DC*
$225,000 in support of general operations (over three years). www.cdt.org

Center for International Environmental Law – U.S., *Washington, DC*
$85,000 in support of a feasibility study and a pilot workshop that would inform the development of a program to enhance the participation of developing countries in bilateral intellectual property negotiations. www.ciel.org

Center for Study of Responsive Law, *Washington, DC*
$450,000 in support of the Consumer Project on Technology (over three years). www.csrl.org

Consumers International, *London, United Kingdom*
$150,000 in support of the Trans Atlantic Consumer Dialogue, which seeks to bring a consumer perspective to international intellectual property negotiations (over two years). www.consumersinternational.org

Digital Future Coalition, *Washington, DC*
$175,000 to develop a communications toolkit on copyright. www.dfc.org

Duke University School of Law, Center for the Study of the Public Domain, *Durham, NC*
$60,000 in support of a project on the World Trade Organization's Agreement on Trade-Related Aspects of International Property Rights. www.law.duke.edu/cspd

Electronic Frontier Foundation, *San Francisco, CA*
$600,000 for work to represent the public interest in international industry standards-setting meetings on digital rights management and intellectual property (over three years). www.eff.org

ESSENTIAL INFORMATION, *Washington, DC*
$600,000 in support of the Consumer Project on Technology's work on international intellectual property policies (over three years). www.essential.org

HARVARD LAW SCHOOL, BERKMAN CENTER FOR INTERNET AND SOCIETY, *Cambridge, MA*
$750,000 in support of general operations (over three years). www.cyber.law.harvard.edu

INTELLECTUAL PROPERTY WATCH, *Geneva, Switzerland*
$300,000 in support of an independent news service, which reports on the processes of intellectual property policymaking at the international level and support for long-term planning efforts (over three years). www.ip-watch.org

LIBRARY OF CONGRESS, CONGRESSIONAL RESEARCH SERVICE, *Washington, DC*
$168,000 in support of research and educational activities on intellectual property topics (over three years). www.loc.gov

NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY OF SCIENCES, *Washington, DC*
$49,000 in support of a symposium on the role of the public domain in scientific and technical information. www.nationalacademies.org/nrc

NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY OF SCIENCES, *Washington, DC*
$250,000 in support of efforts to promote open access to scientific and technical data and information (over 18 months). www.nationalacademies.org/nrc

PUBLIC KNOWLEDGE, *Washington, DC*
$500,000 in support of policy work on intellectual property and a research project on the economics of intellectual property law (over two years). www.publicknowledge.org

PUBLIC KNOWLEDGE, *Washington, DC*
$750,000 in support of general operations (over three years). www.publicknowledge.org

New Models

CREATIVE COMMONS, *San Francisco, CA*
$1,200,000 to develop and implement a new form of licensing for creative works and an intellectual property conservancy (over three years). www.creativecommons.org

CREATIVE COMMONS, *San Francisco, CA*
$750,000 in support of general operations (over three years). www.creativecommons.org

FUTURE OF MUSIC COALITION, *Washington, DC*
$75,000 in support of a study of the music sample licensing process. www.futureofmusic.org

HARVARD LAW SCHOOL, BERKMAN CENTER FOR INTERNET AND SOCIETY, *Cambridge, MA*
$600,000 in support of the Digital Media in Cyberspace Project (over three years). www.cyber.law.harvard.edu

Other

AMERICAN UNIVERSITY, WASHINGTON COLLEGE OF LAW PROGRAM ON INTELLECTUAL PROPERTY AND PUBLIC INTEREST, *Washington, DC*
$50,000 for a meeting to develop a research agenda on intellectual property. www.wcl.american.edu

COUNCIL ON COMPETITIVENESS, *Washington, DC*
$100,000 in support of the Forum on Technology and Innovation's Congressional briefings on intellectual property issues (over two years). www.compete.org

UNIVERSITY OF ILLINOIS AT CHICAGO UNIVERSITY LIBRARY, *Chicago, IL*
$70,000 in support of a conference on open source publishing. www.uic.edu/depts/lib

YALE UNIVERSITY SCHOOL OF LAW, *New Haven, CT*
$65,000 in support of the Access to Knowledge conference. www.law.yale.edu

APPLYING TECHNOLOGY TO MAKE A DIFFERENCE

Information and Analysis

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, *Washington, DC*
$110,000 in support of a pilot project on the application of geospatial technologies to human rights. www.aaas.org

AMERICAN LIBRARY ASSOCIATION, OFFICE FOR INFORMATION TECHNOLOGY POLICY, *Washington, DC*
$215,000 for a multidisciplinary assessment of the credibility of information on the Internet. www.ala.org/oitp

BROWN UNIVERSITY, ANNENBERG INSTITUTE FOR SCHOOL REFORM, *Providence, RI*
$700,000 to develop diagnostic tools for school districts to use in comprehensive reform efforts (over two years). www.annenberginstitute.org

BENETECH, *Palo Alto, CA*
$800,000 in support of using science and technology to promote human rights (over three years). www.benetech.org

CARNEGIE INSTITUTION OF WASHINGTON DEPARTMENT OF GLOBAL ECOLOGY, *Stanford, CA*
$160,000 in support of expanding local capability to map forest disturbances in Peruvian forests. asnerlab.stanford.edu/index.shtml

CALIFORNIA CENTER FOR POPULATION RESEARCH, *Los Angeles, CA*
$86,000 in support of improving research on the demographic dividend by integrating geographic information system data into an ongoing population-based survey in Indonesia to enhance information about changes in age structure and contraceptive use. www.ccpr.ucla.edu/asp/index.asp

CDFI DATA PROJECT, *Philadelphia, PA*
$250,000 to collect and analyze FY 2003 data on indicators relevant to the community development financial institutions industry. www.cdfi.org

CHICAGO HOUSING AUTHORITY, *Chicago, IL*
$1,735,000 for efforts to improve the agency's capacity to relocate and assist tenants, assure quality property management, and manage information. www.thecha.org

CITY OF CHICAGO POLICE DEPARTMENT, *Chicago, IL*
$850,000 in support of the design and testing of public-access components of a data management system (over two years). www.chicagopolice.org/ps

COMMUNITY BUILDERS, *Boston, MA*
$500,000 in support of improvements in management information systems to increase capacity for large-scale ownership and preservation of affordable rental housing (over two years). www.communitybuilders.org

COMMUNITY CATALYST, *Boston, MA*
$250,000 to develop eligibility screening software for potential recipients of social services. www.communitycatalyst.org

COMMUNITY CATALYST, *Boston, MA*
$850,000 in support of the expansion of RealBenefits, an eligibility screening program for potential recipients of social services. www.realbenefits.org

COMMUNITY CATALYST, *Boston, MA*
$1,500,000 for the development and expansion throughout metropolitan Chicago of RealBenefits, an Internet-based eligibility screening software that helps increase individual and family access to income support programs (over two years). www.realbenefits.org

EYEBEAM, *New York, NY*
$300,000 in support of a research and development lab, which develops new technologies and media projects intended for the public domain (over two years). www.eyebeam.org

HARVARD LAW SCHOOL, BERKMAN CENTER FOR INTERNET AND SOCIETY, *Cambridge, MA*
$3,000,000 in support of the Open Net Initiative (over four years). www.cyber.law.harvard.edu

LIVING CITIES: THE NATIONAL COMMUNITY DEVELOPMENT INITIATIVE, *New York, NY*
$1,000,000 in support of the Urban Markets Initiative. www.livingcities.org

METRO CHICAGO INFORMATION CENTER, *Chicago, IL*
$900,000 in support of the assembly and analysis of data about Chicago neighborhoods (over three years). www.mcic.org

METROPOLITAN AREA RESEARCH CORPORATION, *Minneapolis, MN*
$165,000 to create a Web tool for mapping data from the book The Struggle to Grow Equitably: Sprawl, Taxes and Race in America's Regions. www.metroresearch.org

NATIONAL ACADEMY OF SCIENCES INSTITUTE OF MEDICINE, *Washington, DC*
$500,000 in support of the Key National Indicators Initiative (over two years). www.iom.edu

NATIONAL COMMUNITY CAPITAL ASSOCIATION,
Philadelphia, PA
> $250,000 in support of the Community Development Financial Institutions Data Project. www.communitycapital.org

NEIGHBORHOOD HOUSING SERVICES OF CHICAGO,
Chicago, IL
> $400,000 to upgrade information systems and restructure lending and development services. www.nhschicago.org

NEW YORK BOTANICAL GARDEN, *Bronx, NY*
> $300,000 in support of a satellite version of the Virtual Herbarium in the Greater Antilles (over three years). www.nybg.org

NORTHEASTERN ILLINOIS PLANNING COMMISSION,
Chicago, IL
> $380,000 in support of a web-based clearinghouse for housing and community development information in the Chicago region (over three years). www.nipc.org

NORTHEASTERN ILLINOIS PLANNING COMMISSION,
Chicago, IL
> $418,000 to pilot a virtual network for sharing housing and community development data (over two years). www.nipc.org

NORTHEASTERN ILLINOIS PLANNING COMMISSION,
Chicago, IL
> $138,000 in support of the application of innovative technology to neighborhood-level data collection in Chicago. www.nipc.org

SHOREBANK ADVISORY SERVICES, *Chicago, IL*
> $425,000 in support of MetroEdge, a provider of market research and knowledge products that increase the competitiveness of low-income neighborhoods and the regions in which they are located. www.shorebankadvisory.com

TAX POLICY FORUM, *Chicago, IL*
> $150,000 in support of the Tax Policy Calculator Project (over two years).

UNIVERSITY OF HAWAII AT MANOA, OFFICE OF RESEARCH SERVICES, *Honolulu, HI*
> $485,000 in support of the design and development of a clinical information management system for the Research Network on Youth Mental Health Care (over three years). www.manoa.hawaii.edu

UNIVERSITY OF ILLINOIS AT CHICAGO, COLLEGE OF EDUCATION, *Chicago, IL*
> $120,000 to develop a technology plan supporting the revitalization of public schools in the Mid-South area of Chicago. www.uic.edu/educ/index.html

UNIVERSITY OF MICHIGAN, *Ann Arbor, MI*
> $477,000 to establish ExpandNet, a network of health professionals seeking to increase the use of successful reproductive health interventions (over three years). www.expandnet.net

UNIVERSITY OF WASHINGTON, INFORMATION SCHOOL,
Seattle, WA
> $250,000 in support of the Credibility Commons, an online environment for developing tools and resources intended to improve the credibility of Internet information (over two years). www.ischool.washington.edu

URBAN INSTITUTE, *Washington, DC*
> $75,000 to map eligible housing and study the attributes of neighborhoods accessible to housing choice voucher recipients. www.urban.org

VORONEZH STATE UNIVERSITY, *Voronezh, Russia*
> $10,000 to create a laboratory on acoustical-optical systems for information analysis and transmission (over one year). www.vsu.ru/english/index.htm

WOMEN'S GLOBAL HEALTH IMPERATIVE, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO, *San Francisco, CA*
> $1,149,000 in support of continuing, expanding, and beginning to scale up the anti-shock garment pilot project in Nigeria, and to support an experimental trial of the garment in Egypt to demonstrate reduction in maternal mortality and morbidity (over two years). www.wghi.org

WORLDFISH CENTER, *Penang, Malaysia*
> $195,000 to analyze information collected by the Locally Managed Marine Area Network on coral reef management and disseminate it through the ReefBase database (over 18 months). www.worldfishcenter.org

Improving Communication

AMERICAN COUNCILS FOR INTERNATIONAL EDUCATION,
Washington, DC
> $100,000 in support of enhancing the distance learning programs of the European Humanities University International. www.americancouncils.org

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK
SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS,
New York, NY
    $125,000 in support of the Gulf/2000 Project (over
    three years). www.gulf2000.columbia.edu

DUKE UNIVERSITY SCHOOL OF MEDICINE, *Durham, NC*
    $450,000 in support of an Internet-based resource
    center for Psychiatric Advance Directives (over three
    years) http://medschool.duke.edu

ONE WORLD INTERNATIONAL FOUNDATION,
London, United Kingdom
    $70,000 in support of a planning process to determine
    the most appropriate approach to implementing the
    Mobile4Good project in Nigeria, a project which uses
    mobile phone technology to promote healthy out-
    comes. uk.oneworld.net/section/mobile

INFORMATION TECHNOLOGY RESOURCE CENTER
    $75,000 in support of planning for the NPO-NET,
    a local telecommunications network.

LEAGUE OF CHICAGO THEATRES FOUNDATION, *Chicago, IL*
    $370,000 to support an online ticketing system.
    www.theaterchicago.org

NEWBERRY LIBRARY, *Chicago, IL*
    $500,000 to convert the card catalogue to an online
    system (over two years). www.newberry.org

ONE ECONOMY CORPORATION, *Washington, DC*
    $80,000 for a project to increase the access of
    public housing and neighborhood residents to on-line
    information. www.one-economy.com

ONE ECONOMY CORPORATION, *Washington, DC*
    $1,400,000 in support of a technology program whose
    beneficiaries will include residents of five mixed-
    income public housing developments in Chicago (over
    four years). www.one-economy.com

ONE ECONOMY CORPORATION, *Washington, DC*
    $625,000 in support of a training and assistance pro-
    gram to help residents of low-income neighborhoods
    improve their lives through the use of technology
    (over 18 months). www.one-economy.com

PHILANTHROPIC RESEARCH, *Williamsburg, VA*
    $60,000 in support of GuideStar, a free Internet serv-
    ice providing financial and programmatic information
    on U.S. nonprofit organizations (over three years).
    www.guidestar.org

UNIVERSITY OF CALIFORNIA, BERKELEY
GRADUATE SCHOOL OF JOURNALISM, *Berkeley, CA*
    $300,000 in support of the China Internet Project
    (over two years). journalism.berkeley.edu

UNIVERSITY OF IOWA, OFFICE OF THE VICE PRESIDENT FOR
RESEARCH, DIVISION OF SPONSORED PROGRAMS,
Iowa City, IA
    $468,000 in support of the Nigerian Universities
    Information and Communication Technologies Project
    (over three years). research.uiowa.edu

Citizen Engagement

CHICAGO METROPOLIS 2020, *Chicago, IL*
    $250,000 to develop a technology platform for a
    regional learning game.
    www.chicagometropolis2020.org

COUNCIL ON COMPETITIVENESS, *Washington, DC*
    $150,000 in support of the forum on Technology and
    Innovation, a project to educate policymakers and the
    media about technology policy issues (over two years).
    www.compete.org

FLORIDA ATLANTIC UNIVERSITY FOUNDATION, CENTER
FOR URBAN AND ENVIRONMENTAL SOLUTIONS,
Fort Lauderdale, FL
    $100,000 to adapt a regional learning game for use in
    southeast Florida. www.cuesfau.org

GREEN MEDIA TOOLSHED, *Washington, DC*
    $25,000 in support of an exploratory workshop of
    international technologists and civil society leaders to
    develop ideas and best practices for the use of mobile
    phone messaging to promote civic participation.
    www.greenmediatoolshed.com

INTERNETCOAST ECONOMIC DEVELOPMENT ADVISORY
COUNCIL, *West Palm Beach, FL*
    $300,000 in support of general operations (over four
    years). www.internetcoast.com

LOCAL INITIATIVES SUPPORT CORPORATION, *Chicago, IL*
    $70,000 in support of website development and train-
    ing in content management for eight community
    organizations. www.newcommunities.org

LOCAL INITIATIVES SUPPORT CORPORATION, *Chicago, IL*
    $75,600 in support of community participation in the
    design and testing of Internet tools for community
    policing. www.newcommunities.org

NATIONAL CENTER FOR VICTIMS OF CRIME,
Washington, DC

    $167,000 in support of a national panel on the ethical issues that may arise when using innovative technology to reduce crime and improve neighborhood safety (over nine months). www.ncvc.org

NORTHEASTERN ILLINOIS PLANNING COMMISSION,
Chicago, IL

    $360,000 in support of efforts to make community and public data accessible to community organizations for the purposes of neighborhood revitalization (over two years). www.nipc.org

UNIVERSITY OF ILLINOIS AT CHICAGO
DEPARTMENT OF CRIMINAL JUSTICE, *Chicago, IL*

    $97,000 in support of an evaluation of community participation in the design and use of web-enabled tools to improve citizen/police relations and improve neighborhood safety. www.uic.edu/depts/cjus

ABOUT THE FOUNDATION

The John D. and Catherine T. MacArthur Foundation is a private, independent grantmaking institution dedicated to helping groups and individuals foster lasting improvement in the human condition. Through the support it provides, the Foundation fosters the development of knowledge, nurtures individual creativity, strengthens institutions, helps improve public policy, and provides information to the public, primarily through support for public interest media.

With assets of more than $5.4 billion and grants and program–related investments totaling approximately $200 million annually, MacArthur is one of the nation's largest private philanthropic foundations. The Foundation believes its grantmaking is most effective when focused upon a relatively few areas of work, combined with sufficient resources over a long enough period of time to make a measurable difference.

The Foundation makes grants and loans through four programs.

The Program on Global Security and Sustainability focuses on international issues, including human rights and international justice, peace and security, conservation and sustainable development, higher education, migration, and population and reproductive health. MacArthur grantees work in 65 countries, and the Foundation has offices in India, Mexico, Nigeria, and Russia.

The Program on Human and Community Development addresses issues in the United States that include community and economic development; housing, with a focus on the preservation of affordable rental housing; juvenile justice reform; and education, with an emerging interest in how digital media impact learning.

The General Program supports public interest media, including public radio, television, and the produc¬tion of independent documentary film. Grants are also made to arts and cultural institutions in the Chicago area and for special initiatives, currently including intellectual property rights in a digital environment.

The MacArthur Fellows Program awards five-year, unrestricted fellowships to individuals across all ages and fields who show exceptional merit and promise of continued creative work. It is limited to U.S. citizens and other residents of the United States.

John D. MacArthur (1897-1978) developed and owned Bankers Life and Casualty Company and other businesses, as well as considerable property in Florida and New York. His wife Catherine (1909-1981) held positions in many of these companies and served as a director of the Foundation.

The Foundation benefits in its work from diversity at all levels of its operations. In working with other organizations and individuals, the Foundation values those who understand and share its commitment to diversity.