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**INTRODUCTION: THE LAW SCHOOL'S ROLE IN  
DOCUMENTING AND ANALYZING THE INCREASINGLY  
RAPID DEVELOPMENT OF BROADBAND**

by

Michael Botein\*

Welcome to the newest edition of the *Media Law & Policy* journal symposium on broadband law and regulation.<sup>1</sup> The Law School's students, staff, and faculty are pleased to continue their role in documenting and analyzing the increasingly rapid development of broadband.

This series is multi-national, and indeed had its birth in a preliminary comparative analysis of U.S. and foreign broadband deployment in 2006. The Media Center has been a partner of the European Audiovisual Observatory at the Council of Europe (COE) for two decades, and the two organizations have cooperated on a number of events and publications. In the early part of the new millenium, both organizations were focusing on the effects of broadband media – a partnership that led them to co-sponsor an intensive symposium in New York City in the fall of 2006. As with other projects, the Media Center continues to appreciate its fruitful relationship with the Observatory and the COE.

The original premise was that primary concerns would be programming standards and new intellectual property standards as the existing media slowly but inevitably “converged.” Even by the middle of the last decade, most academic debate concerned the government's role

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<sup>1</sup> For streaming video of the underlying live presentations on a gratis basis, please visit [www.nyls.edu/broadband](http://www.nyls.edu/broadband). This series is continually updated to reflect new events, and thus may be more current than the print version.

as to programming and regulation in this new world, as well as peer-to-peer copying and the like.<sup>2</sup> Although much of this projection was right on point, the major issue turned out to be methods of encouraging broadband deployment. There appear to have been several reasons for this. Both European and US companies began to make major investments in broadband – such as Verizon’s FIOS<sup>3</sup> and AT&T’s Lightspeed.<sup>4</sup>

More important, deployment of broadband became a major policy – and political – issue in the United States. The impetus was a series of reports by the Organisation for Economic Co-operation and Development (OECD), ranking the United States as twelfth out of the 30 OECD members in broadband development.<sup>5</sup>

Not surprisingly, this created a substantial political furor in the US, which was gearing up for the 2008 presidential elections.<sup>6</sup> In fact, Senator John McCain was one of the chief critics of the US’s failure to be competitive in broadband.

As life and politics so often would have it, however, Barack Obama won the election and inherited the mantle of broadband deployment. Although President Obama had no background in telecommunications or broadband, he made broadband one of the signature issues of his early Administration. This soon led to a round of congressional activity, ultimately concluding in the Broadband Stimulus Act (BSA) of 2009.<sup>7</sup>

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<sup>2</sup> 17 *Media L. & Pol’y* II (2007). The two major issues there were digital rights management systems and effect of digital television.

<sup>3</sup> As generally known, FIOS is a subsidiary of Verizon, using circuit switched video to provide hundreds of digital channels in a “downstream” capacity, much like traditional analog cable television. – Comment: not sure if he is citing a source or these are his own thoughts, but this needs an actual source.

<sup>4</sup> Lightspeed is a subsidiary of AT&T, using IP circuits to transmit hundreds of megahertz of combined digital material. Because Verizon is circuit switched and Lightspeed is IP, the two obviously are completely incompatible. - Comment: not sure if he is citing a source or these are his own thoughts, but this needs an actual source.

<sup>5</sup> OECD, *Broadband Statistics to June 2006* (2006), [http://www.oecd.org/document/54/0,3343,en\\_2649\\_34225\\_38690102\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/54/0,3343,en_2649_34225_38690102_1_1_1_1,00.html).

<sup>6</sup>

*See, e.g.*, 151 Cong. Rec. S7296 (daily ed. June 23, 2005).

<sup>7</sup> The Broadband Stimulus Act is a subpart of the American Recovery and Reinvestment

Like most enabling statutes, the BSA gave comparatively little detail about the procedures and standards for its implementation, other than generally delegating power largely to the National Telecommunications & Information Administration (NTIA) of the Commerce Department and the Rural Utility and Services division (RUS) of the Department of Agriculture.<sup>8</sup> Immediately after the BSA's passage, most academic inquiry focused on the "ought" of public policy – i.e., initial goals for NTIA and RUS – such as service to unserved/underserved areas, grants to public computer centers, and development of "sustaining" broadband enterprises.

The first symposium thus dealt mainly with economic issues.<sup>9</sup> Alan Pearce and Michael S. Pagano analyzed the BSA's likely impact on jobs and gross domestic product. Jennifer Manner emphasized the importance of applying market-based regulation to the new broadband media, while treating with caution government financial assistance to new entrants. At the same time, Dariusz Adamski drew upon his European experience to make a case against official depression of end user prices below competitive levels, in order to avoid price or cost dysfunction. Patrick S. Brogan similarly urged that the ongoing convergence within the broadband industries made it potentially dangerous to tamper with the existing marketplace regime.<sup>10</sup>

This first round of largely economic literature dealt with most of the initial broadband policy after the government's decision to encourage its deployment. That brought the discussion to narrower legal issues, which began to arise in the wake of the initial policy concerns.

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Act of 2009, Pub. L. 111-5, 123 Stat. 115 (Feb. 17, 2009). It provides for up to a total of \$ 7.2 billion in a combination of loans and grants to encourage broadband development.

<sup>8</sup> The Act also delegated significant power to the Federal Communications Commission ("FCC") to adopt a National Broadband Plan, due at some time in the Spring of 2010.

<sup>9</sup> 18 *Media L. & Pol'y II* (2009).

<sup>10</sup> The textual overview does not include another, very useful article on the effect of tax issues and broadband deployment, which appeared slightly out of the symposium sequence, because of scheduling issues. Larry F. Darby & Joseph P. Fuhr, Jr., *Investing in Economic Growth: Broadband Network Tax Forbearance*, 18 *Media L. & Poly. I* (2009).

These were addressed in a second *Media Law & Policy* symposium issue. This arose out of another symposium at the Law School on October 29, 2009. You hold the results before you.<sup>11</sup>

The dynamism of broadband is reflected by the speed of its development. Since the first symposium in 2006, the focus of attention has moved from program rights to national broadband deployment. This latest symposium begins with Jennifer Manners' overview of current broadband regulatory theories, and their impact on the speed of broadband development. Davidson and Santorelli follow this with a discussion of broadband's impact on US education, healthcare, and communication, with particular emphasis on factors encouraging or discouraging use by older Americans. Courtney A. Barclay then provides an in-depth view of broadband's effect on the internal state of the population, particularly in terms of privacy, and Daniel Margolis gives a detailed analysis of the means for obtaining a grant or loan from NTIA or RUS to fund new broadband operation, which may be enough to make the most sophisticated corporate telecommunications lawyer's blood run dry.

Keeping up with these developments is no easy task, and has been possible only because of the consistent and dedicated work of *Media Law & Policy* student editors. They have done an outstanding job of meeting difficult and changing deadlines, even when they change at the drop of a hat. Many other "friends of the Law School" have made significant contributions, by contributing material and providing overview. This synergy hopefully will continue for the future.

This leaves the question of where the development of broadband goes from here. It simply is not clear. In the few years that *Media Law & Policy* has been focusing on broadband developments, the degree of detail has increased dramatically. Will it continue to do so in the future? *Media Law & Policy* naturally has no better idea than any other observer. But come along for what promises to be an interesting ride.

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<sup>11</sup> Again, the streaming video proceedings are available at [www.nyls.edu/broadband](http://www.nyls.edu/broadband).

# **BROADBAND IN AMERICA: INTRODUCTION TO A NEW FEDERAL PRIORITY**

by

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The 1990s were an exciting time in America for technology and its potential to entertain, inform, connect and yield profits for both consumers and drivers of innovation. But for all the device and application advances of the past decade, from the iPhone to YouTube, Facebook to netbooks, the United States continues to lag behind other countries when it comes to broadband connectivity. Once among the leaders in broadband development, the United States now ranks 15<sup>th</sup> in broadband penetration, behind countries such as Japan, South Korea, France and Denmark, according to the Organization for Economic Cooperation and Development.<sup>1</sup>

When it comes to broadband speeds, the United States ranks 19<sup>th</sup> in the world.<sup>2</sup> For years, lawmakers and industry and consumer advocates

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<sup>1</sup> Organization for Economic Cooperation and Development Broadband Statistics (2008), <http://www.oecd.org/dataoecd/21/35/39574709.xls>.

<sup>2</sup> Organization for Economic Cooperation and Development Broadband Statistics, Average Advertised Broadband Speed, by Country, kbits/s (2009),

have lamented on the need for significant upgrades to the United States' communication infrastructure, which are essential for the country to stay competitive in an increasingly digital world that relies on Internet connectivity for even the most basic functions.

Statistics as to the increasing reliance on broadband and Internet connectivity are staggering. For example, in 2000, 27% of Fortune 500 companies had only online job postings and applications.<sup>3</sup> As of 2005, that number had risen to 77%, and it can be safely assumed that the percentage is much higher today.<sup>4</sup> Further, 90% of high school students use the Internet to search for financial aid information,<sup>5</sup> and a 2008 Zogby Interactive poll reported that 48% of respondents listed the Internet as their main source for news and information.<sup>6</sup>

As these examples demonstrate, the need for increased broadband access and usage is clear. While connecting every home in America is critical, it may be only the first step in a much larger undertaking that will have an impact on many aspects of our lives. Already, a soldier stationed in Iraq can read a bedtime story to his young daughter via video chat;<sup>7</sup> residents of Black Hawk County, Iowa can send an emergency text message to the local public safety answering point through next generation 9-1-1 technologies;<sup>8</sup> business leaders from all over the globe

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<http://www.oecd.org/dataoecd/10/53/39575086.xls>.

<sup>3</sup> Taleo Research, *Talent Management Processes: Don't Miss The Next Strategic Turn*, <http://www.taleo.com/research/articles/talent/don-miss-the-next-strategic-turn-115.html> (last visited Nov. 17, 2009).

<sup>4</sup> *Id.*

<sup>5</sup> EXECUTIVE OFFICE OF THE PRESIDENT, COUNCIL OF ECONOMIC ADVISERS, NATIONAL ECONOMIC COUNCIL, *SIMPLIFYING STUDENT AID: THE CASE FOR AN EASIER, FASTER, AND MORE ACCURATE FAFSA 8* (2009), [http://www.whitehouse.gov/assets/documents/FAFSA\\_Report.pdf](http://www.whitehouse.gov/assets/documents/FAFSA_Report.pdf) (last visited Nov. 17, 2009).

<sup>6</sup> Zogby International, *Zogby Poll: 67% View Traditional Journalism as "Out of Touch,"* ZOGBY, Feb. 27, 2008, <http://www.zogby.com/news/ReadNews.cfm?ID=1454>.

<sup>7</sup> Kathryn Rains, *Soldiers Unite With Families*, ARMY.COM, Aug. 14, 2008, <http://www.army.com/news/item/4131>.

<sup>8</sup> Donny Jackson, *Iowa Call Center First To Receive 911 Text Message*, URGENT

interact and mentor entrepreneurs with the next “big idea” through telepresence and web conferencing.<sup>9</sup> In the twenty-first century, broadband has an even greater potential to enhance innovation, entrepreneurship, education and the quality of life for Americans in ways not seen since the invention of the telephone.

## II CONGRESS’ CALL FOR A NATIONAL BROADBAND PLAN

With the devastating downturn of the economy last fall, a reexamination of where to invest suddenly very scarce governmental resources was in order. With a new President and Congress willing to turn a crisis into an opportunity, the American Recovery and Reinvestment Act of 2009 (ARRA) was enacted by Congress and signed into law by the President, allocating over \$787 billion dollars in appropriations to help stimulate the economy.<sup>10</sup> The ARRA was designed as an economic stimulus measure to provide funds to create American jobs through investments in education, healthcare, infrastructure, and small businesses, as well as tax cuts, grants, and other methods.<sup>11</sup>

As part of the ARRA, Congress mandated that the Federal Communications Commission (FCC) develop the nation’s broadband strategy to address arguably the country’s most significant infrastructure challenge: acceleration of broadband deployment in unserved, underserved and rural areas and to strategic institutions that are likely to create jobs or provide significant public benefit.<sup>12</sup> Under the AARA, the FCC was required to deliver to Congress a National Broadband Plan, by

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COMMUNICATIONS, Aug. 6, 2009,  
[http://urgentcomm.com/networks\\_and\\_systems/news/call-center-911-text-message-20090806/](http://urgentcomm.com/networks_and_systems/news/call-center-911-text-message-20090806/).

<sup>9</sup> Posting of Sramana Mitra to Forbes.com, <http://www.forbes.com/2009/09/10/mentor-entrepreneur-cisco-intelligent-technology-telepresence.html> (Sept. 11, 2009).

<sup>10</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115, (2009), *available at* [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111\\_cong\\_bills&docid=f:h1enr.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h1enr.pdf).

<sup>11</sup> *Id.*

<sup>12</sup> *See id.* at §6001.

March 17<sup>th</sup>, 2010, that will detail how the United States can bring broadband's immense potential to all corners of the country, thus improving the American quality of life.

### **III**

## **THE DEVELOPMENT OF THE NATIONAL BROADBAND PLAN**

To begin the development of this plan, the FCC, in conjunction with the Department of Commerce's National Telecommunications and Information Administration (NTIA) and the Department of Agriculture's (USDA) Office of Rural Development, held a public kick-off meeting on March 10, 2009 to discuss the new broadband initiative and to reinforce the goals of increasing access and creating jobs in communities.<sup>13</sup> FCC Chairman Julius Genachowski announced the senior leadership of the new "Omnibus Broadband Initiative," led by FCC and Wall Street veteran Blair Levin, who served as Chief of Staff to former FCC Chairman Reed Hundt; Erik Garr, a former partner at Diamond Management and Technology Consultants; and Carlos Kirjner, a telecommunications expert and former Vice President for Telegent Systems, Inc. Levin, Garr and Kirjner were charged with assembling a team that would develop the National Broadband Plan. The National Broadband Plan's areas of focus include broadband deployment and several national purposes such as economic opportunity, job training, education, energy and environment, civic engagement and government performance, health care, public safety, and homeland security.<sup>14</sup>

Understanding the national importance of the National Broadband Plan, the FCC developed a process and formed a team to ensure that a data driven Plan would be prepared and delivered to Congress. Reflective of the open, transparent and data-driven mission of Chairman Genachowski's FCC, the National Broadband Taskforce was established as the vehicle through which the Commission would gather information and report to Congress.

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<sup>13</sup> Press Release, Federal Communications Commission, Vilsack, Copps, and Wade Kick Off American Recovery and Reinvestment Act's Broadband Initiative (Mar. 10, 2009), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-289101A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-289101A1.pdf).

<sup>14</sup> Press Release, Federal Communications Commission, Broadband Task Force Delivers Status Report On Feb. 17 National Broadband Plan (Sep. 29, 2009), [https://portal.neca.org/portal/server.pt/gateway/PTARGS\\_0\\_0\\_307\\_206\\_0\\_43/http://pro.dnet.www.neca.org/wawatch/wwpdf/929fccnews2.pdf](https://portal.neca.org/portal/server.pt/gateway/PTARGS_0_0_307_206_0_43/http://pro.dnet.www.neca.org/wawatch/wwpdf/929fccnews2.pdf).

Shortly after, in April 2009, the FCC adopted a Notice of Inquiry (NOI) announcing that the Commission was “begin[ing] a proceeding to create the National Broadband Plan, seeking input from all stakeholders: consumers, industry, large and small businesses, non-profits, the disabilities community, governments at the federal, state, local and tribal levels and all other interested parties.”<sup>15</sup> Commissioner Michael Copps stated at adoption of the NOI that, “this Commission has never, I believe, received a more serious charge than the one to spearhead development of a National Broadband Plan.”<sup>16</sup> A tremendous amount of feedback, in the form of public comment, already has been received by a variety of stakeholders from the major telecommunications service providers to consumer advocacy, and the record continues to grow.

In order to ensure that the process is fact-based and data-driven, the FCC’s Broadband Taskforce has made several new and innovative efforts to engage the public on the National Broadband Plan with unprecedented transparency and collaborative spirit, building on the FCC’s existing procedures for obtaining public comment.

The FCC’s very first foray into the blogosphere, Blogband, was posted on August 18<sup>th</sup>, 2009 by Chairman Genachowski as an interactive public forum to discuss broadband policy.<sup>17</sup> Through the use of the broadband technology, the Chairman has ushered in, not only a new era of communication for the Commission, but also a new period of civic engagement utilizing the latest interactive technologies. The FCC has joined other popular social networking sites like Twitter, Facebook and YouTube, and invites the public to comment, discuss and rank critical broadband issues through IdeaScale.<sup>18</sup> The Commission’s Twitter

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<sup>15</sup> F.C.C., GN DOCKET No. 09-51, NOTICE OF INQUIRY, IN THE MATTER OF A NATIONAL BROADBAND PLAN FOR OUR FUTURE (2009), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-31A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-31A1.pdf).

<sup>16</sup> Statement of Michael J. Copps, Acting Chairman FCC (Apr. 8, 2009), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-31A2.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-31A2.doc).

<sup>17</sup>See generally, Posting of Julius Genachowski, Chairman, FCC, to Blogband, <http://blog.broadband.gov/?p=33> (Aug. 18, 2009).

<sup>18</sup> IdeaScale is an online program that allows companies to build communities based on the model of “crowdsourcing.” The customers post ideas and comments to the site (called a “community”) and other voters vote them up or down. The best ideas float to the top, giving the company subscribing to the service an idea of optimal decisions to be

account currently has over 71,000 followers,<sup>19</sup> and is among the most popular federal agencies, along with the White House, Centers for Disease Control and the National Aeronautics and Space Administration. These are all firsts for the FCC, and they highlight a distinguishing characteristic of an Administration that seeks to communicate with its citizens in the same manner citizens are communicating with one another.

As another means of receiving data to help the development of the National Broadband Plan, the FCC also has held a broad series of workshops and field hearings. This series of workshops, which began in August 2009, and the later field hearings, have proved to be lively, interactive and valuable for the staff tasked with collecting data and forming recommendations. Topics have ranged from “how broadband will impact cyber security” to “how content would and should be distributed to the masses.”<sup>20</sup> The workshops and field hearings feature a diverse group of panelists from government agencies, telecommunications companies, consumer advocacy organizations and academic institutions.<sup>21</sup> Even the workshops, themselves, are utilizing broadband. For example, in a workshop on climate change, a panelist participated via telepresence, interacting with the in-room audience and moderators and forgoing the carbon footprint left behind by air travel, ground transportation and lodging without sacrificing the integrity of his presentation.<sup>22</sup>

#### IV

#### A NATIONAL PURPOSE AS AN EXAMPLE; PUBLIC SAFETY

In order to provide more insight into how the process for developing the National Broadband Plan has worked, it is helpful to focus on one of

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made in the business’s best interests.

<sup>19</sup> See generally FCC Twitter Account Homepage, <http://twitter.com/FCC> (last visited Nov. 17, 2009).

<sup>20</sup> See Broadband.gov Workshop Homepage, <http://www.broadband.gov/workshops.html> (last visited Nov. 17, 2009).

<sup>21</sup> See *id.*

<sup>22</sup> See *id.*

its national objectives: public safety. As part of the FCC's Broadband Plan NOI, the FCC focused questions on a wide variety of areas concerning public safety, including broadband communications for the public safety community, cyber security, emergency alerting and next generation 9-1-1.<sup>23</sup> While some comments were received in response to the NOI, overall, the public record was slim and not very data driven. This required the team working on the public safety portion of the National Broadband Plan to perform substantial outreach to obtain a more data-driven record on these critical issues.

The first accomplishment by the Broadband Task Force in this area was to ensure that the existing dockets pending at the FCC that impact broadband and public safety became part of the National Broadband Plan docket. In this way, important filings in other proceedings could be legally considered in this docket.

Next, the Broadband Task Force held two workshops. The first workshop focused on traditional public safety communications and the impact from broadband, while the second focused solely on cyber security. Each workshop was followed up with detailed questions to each panelist, whose answers became part of the record. A third workshop is being planned to supplement the record.

In order to further increase the size of the record, the Broadband Task Force has been blogging on public safety and homeland security issues. In addition, in October 2009 a public notice was released seeking additional data on broadband networks for public safety, emergency alerting, next generation 9-1-1 and cyber security.<sup>24</sup> This public notice should encourage the filing of additional comments by interested parties, further supplementing the public record.

## V CONCLUSION

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<sup>23</sup> F.C.C., GN DOCKET No. 09-51, NOTICE OF INQUIRY, IN THE MATTER OF A NATIONAL BROADBAND PLAN FOR OUR FUTURE (2009), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-31A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-31A1.pdf).

<sup>24</sup> Press Release, Federal Communications Commission, Comment Sought on Public Safety Issues Related to Broadband Deployment in Rural and Tribal Areas and Broadband Communications to and from Persons with Disabilities (Nov. 11, 2009).

In order to connect the unconnected, real numbers matter. In a political climate growing ever more hostile to government spending, it is in the best interests of the American people and for all future public infrastructure investments to get the numbers right and to develop a National Broadband Plan that results in the increased connectivity of all Americans. The global economic downturn and our international competitors in innovation and economic development will not wait for the United States to catch up in this digital divide. The process must be deliberate, and it must have a clear ethos in the way in which it develops solutions and ideas.

Blair Levin often talks about a conversation he had with a longtime friend that works at a telecommunications think tank, which criticized the broadband workshops' lack of regulatory philosophy. Well, Levin insists, that's exactly by design.<sup>25</sup> Whether you are with or without broadband connectivity is truthfully not a philosophical issue; it's a matter of fact. One of the many challenges this team faces is staying true to a data-driven approach in which political, much less regulatory, philosophy never supersedes. What does "broadband" really mean? What speeds should be achieved? How many households need to be connected? These are just some of the questions that must be answered before the March 17<sup>th</sup>, 2010 deadline.

Most of the broadband team's staff understands, much to their credit, that they simply do not know all the answers. They are asking a lot of questions and have taken steps in making this process as collaborative and open as possible. Perhaps the most important conclusion to be made is that only through robust, wide-open and productive dialog among a very diverse universe of stakeholders can the Federal Communications Commission deliver on its mission set out by Congress to deliver a National Broadband Plan.

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<sup>25</sup> See Posting by Blair Levin, Executive Director, Omnibus Broadband Initiative, to Blogband, <http://blog.broadband.gov/?p=268> (Sept. 11, 2009).



# BROADBAND ADOPTION: WHY IT MATTERS AND HOW IT WORKS

by

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Michael J. Santorelli\*\*  
Thomas Kamber\*\*\*

Several initiatives currently underway at the Federal Communications Commission (FCC), the U.S. Department of Commerce’s National Telecommunications & Information Administration (NTIA), and the U.S. Department of Agriculture’s Rural Utilities Service (RUS) have highlighted the growing importance of broadband to continued innovation and economic prosperity in the United States. Indeed, the U.S. Congress charged NTIA and RUS with administering over \$7 billion in stimulus funding to support broadband network deployment.<sup>1</sup> Congress also charged the FCC with developing a National Broadband Plan to “ensure that all people of the United States

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<sup>1</sup> NTIA is to allocate \$4.7 billion via the Broadband Technology Opportunities Program. See American Recovery and Reinvestment Act of 2009 § 6000, 47 U.S.C. § 1305 (2009), available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111\\_cong\\_public\\_laws&docid=f:publ005.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_public_laws&docid=f:publ005.pdf) [hereinafter “*Recovery Act*”]. RUS is to allocate \$2.5 billion.

have access to broadband capability.”<sup>2</sup> The near-term goal of each initiative is to ensure that broadband is ubiquitously available to all users across the United States regardless of geographic location,<sup>3</sup> in order to “jumpstart the economy”<sup>4</sup> and to build an infrastructure that supports the long-term goals of fostering innovation, job creation, and economic development.<sup>5</sup>

While these goals are laudable, this article argues that such a focus largely overshadows an issue of critical importance to realizing the full potential of broadband: *actual adoption and utilization of the technology*. Even though each federal initiative includes components for increasing the adoption rate of broadband,<sup>6</sup> they are collectively subordinate to the stated primary goal of spurring network deployment to unserved parts of the country. At a time when the FCC has found that broadband is already available to “most of us,”<sup>7</sup> policymakers must focus on developing

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<sup>2</sup> *Id.*

<sup>3</sup> *Id.* NTIA and RUS are disbursing at least \$4 billion in grants and loans for infrastructure deployments to unserved and underserved areas of the country. *See e.g.*, Ryan Singel, *\$4 Billion in Broadband Stimulus Grants Tied to Strict Net Neutrality Rules*, July 1, 2009, WIRED.COM, <http://www.wired.com/epicenter/2009/07/4-billion-in-broadband-stimulus-grants-tied-to-strict-net-neutrality-rules/>.

<sup>4</sup> *See* Julius Genachowski, Chairman, FCC, *Statement of Chairman Julius Genachowski, Seneca High School, Erie, PA*, at 1-2 (July 1, 2009), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-291860A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-291860A1.pdf).

<sup>5</sup> For example, President Obama “believes that modernized infrastructure is a necessary part of the foundation for long term economic stability and prosperity. That includes everything from a comprehensive national broadband plan, to new health care information technology, to a modernized electrical grid.” *See* The White House, Issues: Technology, <http://www.whitehouse.gov/issues/technology/> (last visited Dec. 22 2009).

<sup>6</sup> For example, the Recovery Act requires NTIA make available “not less than \$250,000,000... for competitive grants for innovative programs to encourage sustainable adoption of broadband service.” A component of the FCC’s National Broadband Plan will be “a detailed strategy for achieving affordability of such service and maximum utilization of broadband infrastructure and service by the public.” *See Recovery Act, supra* note 1.

<sup>7</sup> *In the Matter of a National Broadband Plan for Our Future, Notice of Inquiry*, FCC GN Docket No. 09-51, para. 5 [hereinafter “*FCC National Broadband Plan NOI*”]. In addition, an FCC consumer survey released in February 2010 found that only four percent of Americans were “unable to obtain broadband because it is not available.” *See* JOHN B.

policies that seek to maximize the adoption rate across all demographic groups, geographic locations, and sectors of the economy.

Section II of this article discusses why broadband adoption matters. After analyzing current levels of broadband adoption across various user groups in the United States, this section provides three in-depth examples that highlight positive impacts enabled by broadband adoption. These examples include the general economic impacts of broadband adoption, the impact of broadband on healthcare, and the impact of broadband on the energy sector. Each example provides insight into the range of benefits that this technology can facilitate and the growing universe of innovative tools and services that broadband enables.

Section III provides an introduction to the dynamics associated with broadband adoption. A variety of factors influence adoption decisions. These vary among different sectors and user groups. In order to illustrate the many dimensions associated with broadband adoption, this section provides a case study of senior citizens. The case study analyzes the current state of broadband adoption among seniors, highlights barriers to further adoption, and assesses approaches to increasing utilization of broadband by older adults. The goal of this case study is to demonstrate that broadband adoption decisions are sector-specific, and that policies and approaches for spurring further adoption and usage of broadband must be developed accordingly.

## I BROADBAND ADOPTION IN THE UNITED STATES

The FCC recently reported that broadband is available in 100 percent of census tracts across the United States.<sup>8</sup> In addition, the FCC has also found that only four percent of consumers cited lack of access to a broadband connection in their immediate areas as a reason for not

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HORRIGAN, *BROADBAND ADOPTION AND USE IN AMERICA*, at 5, OBI Working Paper Series No. 1, FCC (Feb. 2010), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296442A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf) [hereinafter “*Broadband in America*”].

<sup>8</sup> See FCC WIRELINE COMPETITION BUREAU, INDUSTRY ANALYSIS AND TECHNOLOGY DIVISION, *HIGH-SPEED SERVICES FOR INTERNET ACCESS: STATUS AS OF DECEMBER 31, 2008*, at Table 18, (Feb. 2010), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296239A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296239A1.pdf) [hereinafter “*FCC Broadband Stats - Feb. 2010*”].

adopting the service.<sup>9</sup> Moreover, the vast majority of the population lives in census tracts where multiple broadband providers offer service.<sup>10</sup> Yet, despite such robust availability and widespread competition for subscribers, a significant amount of people have yet to adopt broadband. Part A provides an overview of the current state of broadband adoption in the United States.

Maximizing the broadband adoption rate is critical since numerous studies have found that adopting and effectively using a broadband connection enables a wide variety of positive economic, social, and health-related benefits. Part B analyzes these impacts and discusses why robust broadband adoption matters.

#### A. The Current State of Broadband Adoption

Adoption of broadband in the United States continues to increase each year. According to recent data, the FCC reported that 65 percent of homes had adopted broadband by the end 2009, up from 63 percent in April 2009, 55 percent in April 2008 and 42 percent in March 2006.<sup>11</sup> Home adoption increased across every major demographic group between 2008 and 2009, and over the last several years, there has been a general upward trend in adoption across all demographic groups.<sup>12</sup> However, a closer look at adoption data reveals several worrying trends.

First, under-adopting demographic groups often see no clear and compelling value proposition for adopting and using broadband. Indeed, the Pew Internet & American Life Project (Pew) has found that half of

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<sup>9</sup> See Federal Communications Commission, *FCC Broadband Taskforce Presentation* at Slide 81, Sept. 29, 2009, available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-293742A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293742A1.pdf) [hereinafter "*FCC Broadband Taskforce Presentation - Sept. 29, 2009*"]; *Broadband in America*, *supra* note 7 at 5.

<sup>10</sup> *FCC Broadband Stats - Feb. 2010*, *supra* note 8 at 30-33.

<sup>11</sup> *Broadband in America*, *supra* note 7 at 3; see also JOHN HARRIGAN, PEW INTERNET & AMERICAN LIFE PROJECT, *HOME BROADBAND ADOPTION 2009*, at 9-11 (June 2009), available at <http://www.pewinternet.org/~media/Files/Reports/2009/Home-Broadband-Adoption-2009.pdf> [hereinafter "*Home Broadband Adoption 2009*"].

<sup>12</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 13-14.

non-broadband adopters “question the relevance of connecting to the Internet – either at all or with high-speed at home.”<sup>13</sup> Studies issued by the NTIA and FCC in February 2010 confirmed this finding.<sup>14</sup> Some have suggested that a lack of relevant online content could explain a perceived lack of value of using broadband among some demographic groups.<sup>15</sup> For example, one study has suggested that enhancing online content targeted at African Americans could spur further adoption of broadband among this segment of the population.<sup>16</sup>

Second, there appears to be a positive correlation between income and broadband adoption. Pew reports that adoption rates increase with higher income levels: households with incomes over \$100,000 per year have an 88 percent adoption rate, compared to 82 percent for those earning between \$75,000 and \$100,000 per year, and 80 percent for households reporting between \$50,000 and \$75,000 per year.<sup>17</sup> The adoption rate for those earning less than \$20,000 per year is 40 percent.<sup>18</sup>

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<sup>13</sup> *Id.* at 8.

<sup>14</sup> See NTIA, DIGITAL NATION: 21<sup>ST</sup> CENTURY AMERICA’S PROGRESS TOWARD UNIVERSAL BROADBAND INTERNET ACCESS, at 12-13 (Feb. 2010), *available at* [http://www.ntia.doc.gov/reports/2010/NTIA\\_internet\\_use\\_report\\_Feb2010.pdf](http://www.ntia.doc.gov/reports/2010/NTIA_internet_use_report_Feb2010.pdf) (observing that “households without high-speed Internet access at home stated that “don’t need” (a value proposition) is more important than cost (affordability)” and that “respondents who do not use the Internet anywhere ranked the value proposition significantly higher than affordability [47 percent v. 8.6 percent]”) [hereinafter “*Digital Nation*”]; *Broadband in America*, *supra* note 7 at 30 (identifying relevance as one of the top three reasons non-adopters cite for not subscribing to broadband).

<sup>15</sup> *Broadband in America*, *supra* note 7 at 30 (“19 percent of non-adopters say they do not think digital content delivered using broadband is sufficiently compelling to justify getting it. Many view broadband as an avenue to irrelevant content, and others seem content with the offline alternatives currently available to them.”).

<sup>16</sup> See THE NATIONAL BLACK CAUCUS OF STATE LEGISLATORS ET AL., BROADBAND IMPERATIVES FOR AFRICAN AMERICANS: POLICY RECOMMENDATIONS TO INCREASE DIGITAL ADOPTION FOR MINORITIES AND THEIR COMMUNITIES at 17, (Sept. 2009), *available at* [http://www.jointcenter.org/index.php/content/download/2638/17064/file/MTI\\_Broadband\\_Report\\_Print.pdf](http://www.jointcenter.org/index.php/content/download/2638/17064/file/MTI_Broadband_Report_Print.pdf) [hereinafter “*Broadband Imperatives*”].

<sup>17</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 14.

<sup>18</sup> *Broadband in America*, *supra* note 7 at 3.

The relationship between income levels, non-adoption, and the price of broadband, however, is less clear. Only 15 percent of non-broadband adopters cite the price of monthly broadband service as the primary reason for not subscribing.<sup>19</sup> Yet, affordability of accessing broadband – which includes more than the price of broadband service – is a barrier to broadband adoption for certain demographic groups (e.g., seniors on fixed incomes and people with disabilities who require an assistive technology to use a computer or broadband connection)<sup>20</sup> even though monthly subscription prices have stayed flat, on average, over the last several years.<sup>21</sup> Affordability is a relative term and varies from group to group and person to person. *Some may find broadband affordable at any price, whereas someone who lives on a fixed income may find broadband unaffordable at most prices.* Data suggest, however, that the monthly subscription price of broadband is but one of a variety of factors impacting adoption decisions and is not significantly more impactful than other non-financial variables.<sup>22</sup>

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<sup>19</sup> *Id.* at 30.

<sup>20</sup> ADVANCED COMMUNICATIONS LAW AND POLICY INSTITUTE, BARRIERS TO BROADBAND ADOPTION 26-7 (New York Law School 2009), available at [http://www.nyls.edu/user\\_files/1/3/4/30/83/ACLP%20Report%20to%20the%20FCC%20-%20Barriers%20to%20BB%20Adoption.pdf](http://www.nyls.edu/user_files/1/3/4/30/83/ACLP%20Report%20to%20the%20FCC%20-%20Barriers%20to%20BB%20Adoption.pdf) (observing that “The multiple cost components for people with disabilities who wish to adopt broadband have had a discernible impact on broadband adoption. Individual components – e.g., a broadband subscription – may be affordable, but when combined with expensive ATs and the cost of purchasing a computer, broadband adoption becomes beyond the means of many people with disabilities.”) [hereinafter “*Barriers*”].

<sup>21</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 25.

<sup>22</sup> A number of recent studies and observations support this statement. For example, the FCC’s consumer survey on broadband adoption found that the monthly cost of broadband was only the fourth most cited reason for not using the Internet among nonusers. The three reasons ahead of broadband cost included: (1) lack of digital literacy skills, (2) inability to afford a computer, and (3) online safety concerns. *Broadband in America*, *supra* note 7 at 27. NTIA has also found that affordability concerns are secondary to a lack of a value proposition for using broadband. *Digital Nation*, *supra* note 14 at 12-13. In addition, an empirical study of household demand for broadband service, submitted to the FCC in January 2010, observed that “valuations for Internet increase substantially with experience,” which means that public and private sectors efforts focused on enhancing the relevance of broadband to non-adopters “have potential to increase overall penetration in the United States.” See GREGORY ROSSTON ET AL., HOUSEHOLD DEMAND FOR BROADBAND INTERNET SERVICE, AT 36-37, FINAL REPORT TO THE FCC BROADBAND TASK FORCE, STANFORD INSTITUTE FOR ECONOMIC POLICY RESEARCH

Third, there is a wide adoption gap between older users and younger users. Indeed, only 35 percent of adults over the age of 65 have adopted broadband, compared to 75 percent of those aged 18-29.<sup>23</sup> Moreover, there is a “gray gap” between younger seniors and older seniors.<sup>24</sup> Indeed, one study found that home broadband adoption usage rates were 58 percent for people age 55-59; 48 percent for those age 60-64, 42 percent for those age 65-69, 31 percent for those age 70-75, and only 16 percent for those over 76.<sup>25</sup> Within the senior population, an array of factors influences adoption decisions.<sup>26</sup>

Fourth, minority populations have lower broadband adoption rates than whites. For example, less than half – 46 percent – of African American households had adopted broadband by 2009, compared to 65 percent of white households.<sup>27</sup> African Americans are more likely than

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(submitted Jan. 29, 2010; revised Feb. 3, 2010), *available at* [http://siepr.stanford.edu/system/files/shared/Final\\_Rosston\\_Savage\\_Waldman\\_02\\_04\\_10\\_1\\_1\\_.pdf](http://siepr.stanford.edu/system/files/shared/Final_Rosston_Savage_Waldman_02_04_10_1_1_.pdf). Finally, Blair Levin, a top staffer at the FCC overseeing the development of the National Broadband Plan, has observed that “if broadband is as valuable as we think it is – as we know it to be – why is there such a dramatic adoption gap? Cost is certainly an issue... But it can’t be – it isn’t – the only issue.” See Blair Levin, Executive Director, Omnibus Broadband Initiative, FCC, *Wired for Social Justice, Speech at the Minority Media and Telecommunications Council's Broadband and Social Justice Summit*, at 3 (Jan. 22, 2010), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-295886A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-295886A1.pdf) [hereinafter “*Wired for Social Justice*”].

<sup>23</sup> *Broadband in America*, *supra* note 7 at 13.

<sup>24</sup> CHARLES M. DAVIDSON & MICHAEL J. SANTORELLI, THE IMPACT OF BROADBAND ON SENIOR CITIZENS, A REPORT COMMISSIONED BY THE U.S. CHAMBER OF COMMERCE (Dec. 2008), *available at* [http://www.nyls.edu/user\\_files/1/3/4/30/83/BroadbandandSeniors.pdf](http://www.nyls.edu/user_files/1/3/4/30/83/BroadbandandSeniors.pdf) [hereinafter “*Broadband & Seniors*”].

<sup>25</sup> See SYDNEY JONES, PEW INTERNET & AMERICAN LIFE PROJECT, GENERATIONS ONLINE IN 2009 at 5, (Jan. 2009), *available at* <http://pewresearch.org/pubs/1093/generations-online> [hereinafter “*Generations Online in 2009*”].

<sup>26</sup> *Barriers*, *supra* note 20 at 10-17 (highlighting several barriers to broadband adoption for seniors).

<sup>27</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 13. A recent survey released by the FCC, reporting on data collected at the end of 2009, reports a significantly higher adoption rate among African Americans – 59 percent. *Broadband in America*, *supra* note 7 at 3.

other demographic groups to cite lack of relevance as a primary reason for not adopting broadband.<sup>28</sup> However, African Americans are the most avid users of wireless Internet service, often accessed on mobile phones.<sup>29</sup>

Fifth, data support a “clear correlation between education and [broadband] adoption.”<sup>30</sup> Thirty percent of people with less than a high school degree have adopted broadband, whereas 83 percent of those with a college degree have adopted it.<sup>31</sup> This relationship is evident among people with disabilities. As a group, disabled people have completed less education than those without disabilities.<sup>32</sup> The broadband adoption rate among this segment of the population was estimated to be 42 percent in 2009.<sup>33</sup> In addition to influencing income levels, less educational attainment oftentimes has a negative impact on exposure to broadband

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<sup>28</sup> *Broadband Imperatives*, *supra* note 16 at 4. See also JON P. GRANT ET AL., NATIONAL MINORITY BROADBAND ADOPTION: COMPARATIVE TRENDS IN ADOPTION, ACCEPTANCE AND USE, at 4, REPORT OF THE JOINT CENTER FOR POLITICAL & ECONOMIC STUDIES (Feb. 2010), available at [http://www.jointcenter.org/publications1/publication-PDFs/MTI\\_BROADBAND\\_REPORT\\_2.pdf](http://www.jointcenter.org/publications1/publication-PDFs/MTI_BROADBAND_REPORT_2.pdf).

<sup>29</sup> See JOHN HARRIGAN, PEW INTERNET & AMERICAN LIFE PROJECT WIRELESS INTERNET USE, at 4 (July 2009), available at <http://www.pewinternet.org/~media/Files/Reports/2009/Wireless-Internet-Use.pdf> [hereinafter “*Pew Wireless Study 2009*”].

<sup>30</sup> See Rahul Gaitonde, *Clear Correlation Between Education and Adoption, Says FCC Consumer Research Director*, BROADBANDCENSUS.COM, Oct. 20, 2009, available at <http://broadbandcensus.com/2009/10/clear-correlation-between-education-and-adoption-says-fcc-consumer-research-director/>; *Broadband in America*, *supra* note 7 at 3.

<sup>31</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 14.

<sup>32</sup> See CORNELL UNIVERSITY, REHABILITATION RESEARCH AND TRAINING CENTER ON DISABILITY DEMOGRAPHICS AND STATISTICS, 2007 DISABILITY STATUS REPORT – UNITED STATES at 42, available at [http://www.ilr.cornell.edu/edi/disabilitystatistics/StatusReports/2007-PDF/2007-StatusReport\\_US.pdf?CFID=7676403&CFTOKEN=73912389&jsessionid=f030ad698d2ccb1a9bcc34517277762361b1](http://www.ilr.cornell.edu/edi/disabilitystatistics/StatusReports/2007-PDF/2007-StatusReport_US.pdf?CFID=7676403&CFTOKEN=73912389&jsessionid=f030ad698d2ccb1a9bcc34517277762361b1).

<sup>33</sup> *Broadband in America*, *supra* note 7 at 3.

and its positive impacts.<sup>34</sup>

Finally, a wide range of data indicates that each demographic segment faces many unique barriers to broadband adoption, which, in most cases, has resulted in low adoption rates.<sup>35</sup> For example, among senior citizens, lack of training to effectively use a broadband connection, along with a low computer ownership rate and fears about online security, are major barriers to broadband adoption.<sup>36</sup> Affordability of accessing broadband (e.g., costs associated with purchasing a computer, necessary assistive technologies, and a broadband connection) is a major concern among people with disabilities,<sup>37</sup> but a widespread negative perception regarding the accessibility of broadband is oftentimes the primary barrier to adoption within this segment of the population.<sup>38</sup>

These trends suggest that the dynamics associated with broadband adoption are multiple and sector specific. As a result, policymakers should develop policies that address the particular needs of discrete user groups in order to enhance the adoption rate across the entire population.

#### B. Assessing the Impacts and Potential of Broadband

Increased adoption and usage of broadband will facilitate a number of short- and long-term benefits. Indeed, a growing number of studies have found actual and potential cost savings, economic opportunities, and other life-enhancing benefits associated with robust broadband adoption and utilization among the general population, within specific demographic groups, and across all sectors of the economy. In particular, this part focuses on: (1) the general economic impacts of broadband, (2)

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<sup>34</sup> *Barriers*, *supra* note 20 at 25 (noting that lack of exposure to broadband in educational and work environments is a barrier to broadband adoption for people with disabilities).

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 10-17.

<sup>37</sup> *Id.* at 26-27.

<sup>38</sup> *Id.* at 2.

how broadband is impacting healthcare, and (3) the impacts of broadband on the energy sector.

### 1. *Economic Impacts of Broadband*

Broadband has numerous positive economic impacts, both on the economy as a whole and on individual users.

With regard to economy-wide impacts, wide availability and robust adoption of broadband affects employment, small business creation, and productivity.<sup>39</sup> Studies from as early as 2001, when less than 13 million broadband lines were in service,<sup>40</sup> projected that annual consumer welfare gains enabled by broadband could exceed \$400 billion.<sup>41</sup> Several more recent studies suggest that actual annual consumer welfare gains associated with broadband use run into the tens of billions.<sup>42</sup> Moreover, other recent studies have honed in more specifically on discrete economic impacts of broadband availability, adoption and usage. For example, a study from 2005 found that “communities in which mass-market broadband was available...experienced more rapid growth in employment, the number of businesses overall, and businesses in IT-

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<sup>39</sup> See, e.g., JED KOLKO, DOES BROADBAND BOOST LOCAL ECONOMIC DEVELOPMENT? at 2, PUBLIC POLICY INSTITUTE OF CALIFORNIA (Jan. 2010), *available at* [http://www.ppic.org/content/pubs/report/R\\_110JKR.pdf](http://www.ppic.org/content/pubs/report/R_110JKR.pdf) (observing a “positive relationship between broadband expansion and economic growth.”).

<sup>40</sup> See FEDERAL COMMUNICATIONS COMMISSION, WIRELINE COMPETITION BUREAU, INDUSTRY AND TECHNOLOGY ANALYSIS DIVISION, HIGH-SPEED SERVICES FOR INTERNET ACCESS: STATUS AS OF JUNE 30, 2005 at 16 (April 2006), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-264744A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264744A1.pdf).

<sup>41</sup> See ROBERT W. CRANDALL & CHARLES L. JACKSON, CRITERION ECONOMICS LLC, THE \$500 BILLION OPPORTUNITY: THE POTENTIAL ECONOMIC BENEFIT OF WIDESPREAD DIFFUSION OF BROADBAND INTERNET ACCESS at iv, BROOKINGS INSTITUTE (July 2001), *available at* [http://www.att.com/public\\_affairs/broadband\\_policy/BrookingsStudy.pdf](http://www.att.com/public_affairs/broadband_policy/BrookingsStudy.pdf).

<sup>42</sup> See, e.g., JONATHAN ORSZAG, MARK DUTZ AND ROBERT WILLIG, THE SUBSTANTIAL CONSUMER BENEFITS OF BROADBAND CONNECTIVITY FOR US HOUSEHOLDS, INTERNET INNOVATION ALLIANCE (July 2009), *available at* [http://internetinnovation.org/files/special-reports/CONSUMER\\_BENEFITS\\_OF\\_BROADBAND.pdf](http://internetinnovation.org/files/special-reports/CONSUMER_BENEFITS_OF_BROADBAND.pdf) (estimating that “Consumers receive more than \$30 billion of net benefits from the use of fixed-line broadband at home,” at 4).

intensive sectors.”<sup>43</sup> Another study found that a seven percentage point increase in broadband adoption “could result in \$92 billion through an additional 2.4 million jobs per year created, \$662 million saved per year in reduced healthcare costs...and \$134 billion per year in total direct economic impact of accelerating broadband across the United States.”<sup>44</sup> In 2009, LECG, a research company, estimated that the “addition of ten more broadband lines per 100 individuals across the United States (30 million new broadband lines) would raise U.S. GDP by over \$110 billion.”<sup>45</sup>

Wireless broadband, in particular, is projected to have increasingly positive and discernible impacts on U.S. GDP. One report estimates that “by 2016, the value of the combined mobile wireless voice and broadband productivity gains to the U.S. economy [is estimated to be] \$427 billion per year.”<sup>46</sup> Another recent study estimated that “new wireless broadband investments of \$17.4 billion will, within twenty-four months of making this additional investment, increase GDP by 0.9 percent to 1.3 percent, which translates into dollar terms to \$126.3 billion to \$184.1 billion, and will result in an increase of between 4.5 million and 6.3 million jobs.”<sup>47</sup>

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<sup>43</sup> See WILLIAM A. LEHR, CARLOS A. OSORIO, SHARON E. GILLET & MARVIN A. SIRBU, MEASURING THE ECONOMIC IMPACT OF BROADBAND DEPLOYMENT, at 3, A REPORT TO THE U.S. DEPT. OF COMMERCE, ECONOMIC DEVELOPMENT ADMINISTRATION (2005) [hereinafter “*Measuring Economic Impact of Broadband*”].

<sup>44</sup> See e.g. CONNECTED NATION, INC., THE ECONOMIC IMPACT OF STIMULATING BROADBAND NATIONALLY at 5, (Feb. 21, 2008), available at [http://connectednation.com/\\_documents/Connected\\_Nation\\_EIS\\_Study\\_Full\\_Report\\_02212008.pdf](http://connectednation.com/_documents/Connected_Nation_EIS_Study_Full_Report_02212008.pdf).

<sup>45</sup> See LECG, [ECONOMIC IMPACT OF BROADBAND: AN EMPIRICAL STUDY](#), at 8-9 (Feb. 2009), available at [http://www.connectivityscorecard.org/images/uploads/media/Report\\_BroadbandStudy\\_LECG\\_March6.pdf](http://www.connectivityscorecard.org/images/uploads/media/Report_BroadbandStudy_LECG_March6.pdf).

<sup>46</sup> See ROGER ENTNER, THE INCREASINGLY IMPORTANT IMPACT OF WIRELESS BROADBAND TECHNOLOGY AND SERVICES ON THE U.S. ECONOMY at 2 available at [http://files.ctia.org/pdf/Final\\_OvumEconomicImpact\\_Report\\_5\\_21\\_08.pdf](http://files.ctia.org/pdf/Final_OvumEconomicImpact_Report_5_21_08.pdf).

<sup>47</sup> See Alan Pearce & Michael S. Pagano, *Accelerated Wireless Broadband Infrastructure Deployment: The Impact on GDP and Employment*, 18 MEDIA L. & POL’Y 105, 105-106 (2009).

For individuals, broadband facilitates a number of economic opportunities and benefits for those who are able to effectively use their connection.<sup>48</sup> Specific impacts tend to vary among user groups. For example, broadband allows people with disabilities to participate in an array of employment and educational activities that may otherwise be inaccessible.<sup>49</sup> Among many other things, broadband can be used to launch a business from home. This is significant to this demographic group since people with disabilities have traditionally demonstrated a strong desire to work for themselves. Over the last several decades, evidence suggests that people with disabilities “have a higher rate of self-employment and small business experience than people without disabilities.”<sup>50</sup>

Senior citizens use broadband to enable cost-savings by comparison shopping online for prescription drugs,<sup>51</sup> to work past retirement by

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<sup>48</sup> A recent study highlighted the importance of “useful connectivity,” which depends “not just on the number of people connected to a network or infrastructure, but how well those connected people utilize the network or infrastructure.” See Press Release, *Study Shows Significant Economic Benefits From Broadband if Overall ICT Access and Skills are High*, NOKIA SIEMENS NETWORK (Mar. 5, 2009) available at <http://www.nokiasiemensnetworks.com/global/Press/Press%20releases/news-archive/Study%20shows%20significant%20economic%20benefits%20from%20broadband%20if%20overall%20ICT%20access%20and%20skills%20are%20high.htm> (citing LECC/NOKIA SIEMENS NETWORK’S *CONNECTIVITY SCORECARD* (2009), available at <http://www.connectivityscorecard.org/images/uploads/media/TheConnectivityReport2009.pdf>) [hereinafter “*Useful Connectivity*”].

<sup>49</sup> See CHARLES M. DAVIDSON & MICHAEL J. SANTORELLI, *THE IMPACTS OF BROADBAND ON PEOPLE WITH DISABILITIES*, Report to the U.S. Chamber of Commerce at 25-31, (Dec. 2009), available at <http://www.uschamber.com/NR/rdonlyres/eg527llrwtht77nu6ifxqxyfyam3pbbdizzwuwu3kuomn37hitdicjmnnox7onfsc3ad4iwevg4babodfjivqtctiad/U%2eS%2eChamberPaperonBroadbandandPeoplewithDisabilities.pdf> [hereinafter “*Broadband & People with Disabilities*”].

<sup>50</sup> See U.S. DEPT. OF LABOR, OFFICE OF DISABILITY EMPLOYMENT POLICY, *SMALL BUSINESS AND SELF EMPLOYMENT FOR PEOPLE WITH DISABILITIES*, <http://www.dol.gov/odep/programs/promotin.htm> (last visited Dec. 19, 2009).

<sup>51</sup> *Broadband & Seniors*, *supra* note 24 at 17-18.

telecommuting,<sup>52</sup> and to manage retirement savings online.<sup>53</sup> According to a 2005 study, the aggregate cost savings due to the use of broadband by seniors, people with disabilities, and in the care of seniors and people with disabilities was estimated to be between \$532 billion and \$847 billion by 2030<sup>54</sup> (this estimate includes savings realized from increased efficiencies in healthcare and the economic impact of having more members of each segment in the workforce).

Overall, one study estimates that “consumers receive more than \$30 billion of net benefits from the use of fixed-line broadband at home per year.”<sup>55</sup> This study also linked increased broadband speeds with increased consumer benefits: “the benefits of an increase in broadband speed from 100 times the typical historical speed of dial-up Internet service to 1,000 times dial-up are on the order of \$6 billion per year for existing home broadband users.”<sup>56</sup> However, in order to realize these gains, policymakers must focus their efforts on ensuring that broadband is adopted and used effectively.<sup>57</sup>

## 2. *Broadband and Healthcare*

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<sup>52</sup> *Id.* at 19.

<sup>53</sup> *Id.* at 18.

<sup>54</sup> See ROBERT E. LITAN, NEW MILLENNIUM RESEARCH COUNCIL GREAT EXPECTATIONS: POTENTIAL ECONOMIC BENEFITS TO THE NATION FROM ACCELERATED BROADBAND DEPLOYMENT TO OLDER AMERICANS AND AMERICANS WITH DISABILITIES, (Dec. 2005), available at [http://www.newmillenniumresearch.org/archive/Litan\\_FINAL\\_120805.pdf](http://www.newmillenniumresearch.org/archive/Litan_FINAL_120805.pdf).

<sup>55</sup> See MARK DUTZ ET AL., THE SUBSTANTIAL CONSUMER BENEFITS OF BROADBAND CONNECTIVITY FOR U.S. HOUSEHOLDS, at 4, (July 2009), available at [http://internetinnovation.org/files/special-reports/CONSUMER\\_BENEFITS\\_OF\\_BROADBAND.pdf](http://internetinnovation.org/files/special-reports/CONSUMER_BENEFITS_OF_BROADBAND.pdf).

<sup>56</sup> *Id.*

<sup>57</sup> See e.g. *Measuring Economic Impact of Broadband*, *supra* note 43 at 11 (observing that “Once broadband is available to most of the country, differences in economic outcomes are likely to depend more on how broadband is used than on its basic availability. The implication for economic development professionals is that a portfolio of broadband-related policy interventions that is reasonably balanced (i.e., also pays attention to demand-side issues such as training) is more likely to lead to positive economic outcomes than a single-minded focus on availability.”).

Broadband is playing an increasingly vital role in healthcare by enabling a universe of telemedicine services<sup>58</sup> that, in turn, provide a number of life-enhancing, and potentially lifesaving, benefits. Among other benefits, broadband-enabled telemedicine and health information technology services (e.g., electronic health records or EHRs) extend the range of enhanced medical services to rural parts of the country, streamline the administration of healthcare, enable a wide array of cost savings, and empower individuals to have more control over medical decisions.<sup>59</sup> In sum, broadband-enabled telemedicine is poised to shift the traditional healthcare paradigm toward increased individualized care by empowering patients to make more informed decisions and to receive targeted medical care in their homes.<sup>60</sup>

For patients, broadband-enabled telemedicine facilitates a number of positive impacts. These include:

- *Rural healthcare access.* Telemedicine allows patients who live in remote parts of the country or who are physically unable to travel long distances to receive quality healthcare, often via real-time broadband-enabled services like videoconferencing. Whereas in the past, these types of patients would have to either delay treatment or risk traveling long distance to consult with a specialist, broadband-enabled telemedicine services provide fast, reliable, effective, and convenient healthcare

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<sup>58</sup> “Telemedicine” refers to “the use of electronic communications and health information technology (HIT) to provide clinical services” for remote patients. See AMERICAN TELEMEDICINE ASSOCIATION, TELEMEDICINE, TELEHEALTH, AND HEALTH INFORMATION TECHNOLOGY, AN ATA ISSUE PAPER, at 3 (May 2006), *available at* [http://www.americantelemed.org/files/public/policy/HIT\\_Paper.pdf](http://www.americantelemed.org/files/public/policy/HIT_Paper.pdf). For the purposes of this paper, telehealth, which encompasses a “broader application...of electronic communications and information technologies” that is used to “support healthcare services,” is also implicated in the general telemedicine discussion. *Id.*

<sup>59</sup> See generally CHARLES M. DAVIDSON & MICHAEL J. SANTORELLI, THE IMPACT OF BROADBAND ON TELEMEDICINE, A REPORT TO THE U.S CHAMBER OF COMMERCE (April 2009), *available at* [http://www.nyls.edu/user\\_files/1/3/4/30/83/BroadbandandTelemedicine.pdf](http://www.nyls.edu/user_files/1/3/4/30/83/BroadbandandTelemedicine.pdf) [hereinafter “*Broadband & Telemedicine*”].

<sup>60</sup> See, e.g., Eric Dishman, *Inventing Wellness Systems for Aging in Place*, COMPUTER MAGAZINE (May 2004); *Broadband & Telemedicine*, *supra* note 59, at 3.

to patients regardless of geographic location.<sup>61</sup>

- *Remote monitoring.* This encompasses a wide range of tools and services, including the use of sensors to record movements, the use of wireless devices to monitor vital signs and symptoms (e.g., glucose levels<sup>62</sup>), and the use of cameras and software to remotely monitor several intensive care patients at once.<sup>63</sup> A recent study estimated that “a full embrace of remote monitoring alone could reduce healthcare expenditures by a net of \$197 billion (in constant 2008 dollars) over the next 25 years with the adoption of policies that reduce barriers and accelerate the use of remote monitoring technologies.”<sup>64</sup>
- *In-home care.* A recent trial involving patients with various heart-related ailments found that in-home monitoring devices were effective and popular among both care providers and patients. In particular, this study estimated that broadband-enabled real-time video

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<sup>61</sup> *Broadband & Telemedicine, supra* note 59, at 14.

<sup>62</sup> MedApps, for example, has released an FDA-approved product that allows for information gleaned from its glucose measuring to be sent via Bluetooth to a patient's cell phone and transmits the information to a central server in near real-time. See MedGadget.com, *MedApps D-PAL Remote Patient Monitoring System for Diabetes*, July 12, 2007, available at [http://medgadget.com/archives/2007/07/medapps\\_dpall\\_remote\\_patient\\_monitoring\\_system\\_for\\_diabetes.html](http://medgadget.com/archives/2007/07/medapps_dpall_remote_patient_monitoring_system_for_diabetes.html).

<sup>63</sup> See Laura Landro, *The Picture of Health*, WALL ST. J. Oct. 27, 2008, (describing an electronic ICU [eICU] program that “uses two-way video cameras and software that tracks patients’ vital signs and instantly registers any changes in lab test results or physical condition. That enables doctors in the command center to spot early warning signs that a patient is taking a turn for the worse, advise bedside staff on giving medications and treatments, and point out potential errors or oversights.” Further, a recent study found that average cost savings flowing from eICU programs was \$5,000 per case.).

<sup>64</sup> See ROBERT LITAN, VITAL SIGNS VIA BROADBAND: REMOTE HEALTH MONITORING TRANSMIT SAVINGS, ENHANCES LIVES, at 2, (Oct. 2008), available at <http://www.betterhealthcaretogether.org/Library/Documents/VITAL%20SIGNS%20via%20BROADBAND%20FINAL%20with%20FOREWORD%20and%20TITLE%20pp%2010%2022.pdf>.

consultations could replace upwards of 45 percent of in-person visits regarding heart-related matters.<sup>65</sup>

- *Increased access to specialists*, which allows for more efficient diagnosis and treatment.<sup>66</sup> Leveraging the expertise and experience of a specialist often leads to more successful and effective treatments.<sup>67</sup>
- *Early disease detection*. For example, in-home monitoring systems are being tested to detect the early onset of cognitive diseases like Alzheimer's.<sup>68</sup> Treating these types of diseases "costs the United States more than \$148 billion annually in Medicaid and Medicare services and in indirect costs to businesses that employ [Alzheimer's] and dementia caregivers."<sup>69</sup> Yet, it is estimated that the early "interventions that could delay the onset of Alzheimer's disease by as little as one year would reduce prevalence of the disease by 12 million fewer cases in 2050," which could lead to dramatic cost savings for this disease alone.<sup>70</sup>

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<sup>65</sup> See Mark Terry, *Three Modalities of Cardiovascular Telemedicine*, 14 J. TELEMED. & E-HEALTH 1031, 1032 (Dec. 2008) [hereinafter "*Three Modalities*"].

<sup>66</sup> See Stacie Huie, *Facilitating Telemedicine: Reconciling National Access with State Licensing Laws*, 18 HASTINGS COMM. & ENT. L.J. 377, 389 (1996).

<sup>67</sup> *Id.*

<sup>68</sup> The Oregon Center for Aging & Technology ("ORCAT") is one institution that has launched a pilot program that uses in-home wireless sensors to monitor cognitive decline among older adults. For more information, see ORCAT, Current Research, <http://www.orcatech.org/research/studies>.

<sup>69</sup> See International Conference on Alzheimer's disease, *Highlights of Research Findings*, at 2, Alzheimer's Association, available at [https://www.alz.org/icad/documents/2008\\_ICADhighlights.pdf](https://www.alz.org/icad/documents/2008_ICADhighlights.pdf).

<sup>70</sup> See Press Release, Johns Hopkins University Bloomberg School of Public Health, Alzheimer's disease to Quadruple Worldwide by 2050, (June 10, 2007) available at [http://www.jhsph.edu/publichealthnews/press\\_releases/2007/brookmeyer\\_alzheimers\\_2050.html](http://www.jhsph.edu/publichealthnews/press_releases/2007/brookmeyer_alzheimers_2050.html) (announcing a study by Ron Brookmeyer et al. entitled *Forecasting the Global Burden of Alzheimer's Disease*).

For healthcare providers, broadband is being used as a platform to enable a variety of advanced medical tools that enhance care and streamline operations. Examples include:

- *Outsourcing critical medical data to specialists for diagnoses.* For example, teleradiology is increasingly popular in rural areas like Alaska, where local healthcare providers send x-rays via email to colleagues in other states or other countries. Indeed, over the past few years, increasing amounts of radiological data have been outsourced to doctors in India for review and diagnosis.<sup>71</sup> While this and other types of “outsourced” medicine have been somewhat controversial,<sup>72</sup> these efforts produce synergies that maximize the readily available talents of those who live in distant places by using broadband connections and decrease costs for patients and doctors in the United States.<sup>73</sup>
- *Reduce the number of physicians needed in rural areas.* Broadband helps to make up for a dearth of physicians who practice in rural areas. Indeed, a 2005 study found that only three percent of medical students expressed a desire to work in rural areas.<sup>74</sup>
- *Continuing medical education.* Broadband enables chat groups, videoconferencing, and Internet-based continuing education programs based in urban healthcare facilities for use by rural physicians. For example, the Telemedicine Program at Texas Tech University offers a number of distance learning opportunities for healthcare

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<sup>71</sup> See, e.g., Andrew Pollack, *Who's Reading Your X-Ray?* N.Y. TIMES, Nov. 16, 2003.

<sup>72</sup> See Archie A. Alexander, III, *American Diagnostic Radiology Moves Offshore: Is This Field Riding the “Internet” Wave Into a Regulatory Abyss?* 20 J. L. & HEALTH 199 (2007) (explaining the controversy surrounding outsourcing in general and arguing in favor of teleradiology as beneficial to patients and doctors.).

<sup>73</sup> *Barriers*, *supra* note 20 at 46-47.

<sup>74</sup> See Myrle Crosdale, *Admissions Process Aims to Boost Rural Doctors*, AMERICAN MEDICAL NEWS, Feb. 7, 2005, available at <http://www.ama-assn.org/amednews/2005/02/07/prsb0207.htm>.

providers throughout the state of Texas. One class, Telemedicine 101, introduces patients and doctors to the concept of remote healthcare and encourages healthcare providers to assess whether they need to implement such services in their towns.<sup>75</sup> These types of programs allow rural doctors and patients to stay abreast of new developments in the field of medicine and telemedicine.

- *More efficiently manage patient data.* EHRs store an individual patient’s medical history – test results, doctor recommendations, medications, etc. – in a digital form.<sup>76</sup> These and other health IT tools facilitate better communication among healthcare providers, which in turn allows doctors to provide their patients with more comprehensive care.<sup>77</sup>

Actual usage of many of these tools, however, remains sporadic. For example, by 2006 less than half – 46 percent – of community hospitals reported moderate or high use of HIT.<sup>78</sup> According to the U.S. Department of Health and Human Services, only four percent of physicians have adopted fully functional EHR systems.<sup>79</sup> Many patients

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<sup>75</sup> See Texas Tech Health Sciences Center, Telemedicine Training & Consulting, <http://www.ttuhsc.edu/telemedicine/institute.aspx>.

<sup>76</sup> *Broadband & Telemedicine*, *supra* note 59 at 3.

<sup>77</sup> See e.g., Press Release, Compressus, National Survey of Radiologists Reveals Systemic Problems Hurting Industry and Patient Care (Dec. 3, 2008) available at [http://www.compressus.com/PDF\\_Press%20Releases/FH%20Compressus%20Survey%20Release%20Final-120208.pdf](http://www.compressus.com/PDF_Press%20Releases/FH%20Compressus%20Survey%20Release%20Final-120208.pdf) (reporting the results of a survey that found, among things, that “Ninety-four percent [of surveyed radiologists] connected the inability of medical imaging systems to communicate with information systems of physicians and hospitals with missed or delayed diagnosis” and “[71] percent of radiologists consider this failure to share data with other physicians and hospitals as a growing crisis for the industry.”).

<sup>78</sup> See AMERICAN HOSPITAL ASSOCIATION CONTINUED PROGRESS: HOSPITAL USE OF HEALTH INFORMATION TECHNOLOGY, at 1 (2007), available at <http://www.aha.org/aha/issues/HIT/resources.html> [hereinafter “*Continued Progress*”].

<sup>79</sup> See Press Release, U.S. Dept. of Health & Human Services, *Large Survey of Physicians Show Size and Setting Continue as Major Factors Influencing EHR Adoption Rates* (June 18, 2008) available at <http://www.hitadoption.org/index.php?>

are also wary of telemedicine services. Studies have shown that, while patient satisfaction with telemedicine services is generally positive, patients express negative concerns both before and after receiving treatment. A recent study of remote monitoring patients found that “[a]lthough the response to the home telehealth service [for congestive heart failure] was overwhelmingly positive, respondents remained undecided regarding the perceived benefits of telehealth versus in-person care.”<sup>80</sup> Many view telemedicine as a supplement to, rather than a replacement of, traditional face-to-face doctor visits so long as adequate privacy measures are taken.<sup>81</sup>

Enhancing adoption and use of these services is essential to realizing the many cost savings associated with telemedicine tools. For example, many believe that using telemedicine for in-home care has the potential to save millions, if not billions, each year in healthcare costs. In 2009, a U.S. Veterans Affairs in-home telehealth pilot reported a 19 percent decrease in hospitalizations, a 25 percent decrease in bed days of care, and a 27 percent decline in the 4-year diabetes mortality rate.<sup>82</sup> The decrease in hospitalizations alone totals \$2.2 billion per year in cost savings.<sup>83</sup> Moreover, broadband-enabled telemedicine could replace in-

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<sup>80</sup> See Pamela Whitten, et al., *St. Vincent's Home Telehealth for Congestive Heart Failure Patients*, J. TELEMEDICINE AND E-HEALTH 151-152 (March 2009).

<sup>81</sup> See PHILIPS HOME HEALTHCARE SOLUTIONS, NATIONAL STUDY ON THE FUTURE OF TECHNOLOGY & TELEHEALTH IN HOME CARE at 32, (April 2008), available at <http://www3.medical.philips.com/resources/hsg/docs/en-us/custom/PhilipsNationalStudyFullReport.pdf>.

<sup>82</sup> FCC Broadband Taskforce Presentation, *supra* note 9 at slide 100 (citing: Chumblor NE et al, *Mortality risk for diabetes patients in care coordination, home-telehealth program*, JOURNAL OF TELEMEDICINE AND TELEcare 2009:15:98-01; Bates DW et al, *Veteran senate hearings*, available at <http://veterans.senate.gov>.)

<sup>83</sup> *Id.*

person consultations,<sup>84</sup> eliminate unnecessary transfers,<sup>85</sup> and increase prescription accuracy.<sup>86</sup> Studies have also estimated that robust utilization of EHR systems could lead to annual cost savings of between \$77 billion<sup>87</sup> and \$80 billion.<sup>88</sup>

### 3. *Broadband and the Energy Sector*

In addition to having the potential to transform the U.S. healthcare paradigm, broadband is increasingly essential to energy reform efforts at the state and federal levels. Indeed, the ability of broadband to transmit data in real-time provides energy companies with a number of ways for integrating this technology into various aspects of the energy business. Two examples are illustrative of this trend.

First, broadband is being used to modernize the electric grid by enabling “smart” technologies that provide energy providers and

<sup>84</sup> A recent study estimated that broadband-enabled real-time video consultations could replace upwards of 45% of in-person visits regarding heart-related matters. *Three Modalities*, *supra* note 65 at 1032.

<sup>85</sup> One study estimates that telemedicine “could save the U.S. healthcare system \$4.28 billion [annually] just from reducing transfers of patients from one location, such as a nursing home for medical exams at hospitals, physicians’ offices, or other caregiver locations.” See ALEXANDER H. VO, UNIV. OF TEXAS MEDICAL BRANCH THE TELEHEALTH PROMISE: BETTER HEALTHCARE AND COST SAVINGS FOR THE 21<sup>ST</sup> CENTURY, at 8, available at <http://attcenter.utmb.edu/presentations/The%20Telehealth%20Promise-Better%20Health%20Care%20and%20Cost%20Savings%20for%20the%2021st%20Century.pdf>.

<sup>86</sup> Computerized physician order entry could save up to \$1.1 billion nationally through a 13% decline in duplicate tests. *FCC Broadband Taskforce Presentation*, *supra* note 9, at slide 102.

<sup>87</sup> See Sharona Hoffman & Andy Podgurski, *Finding a Cure: The Case for Regulation and Oversight of Electronic Health Records Systems*, 22 HARV. J. L. & TECH. 104, 116 (2008) (citing Jan Walker et al., *The Value of Health Care Information Exchange and Interoperability*, 25 HEALTH AFFAIRS W5-10, W5-16 (2005)).

<sup>88</sup> See Richard Hillestad et al., *Can Electronic Medical Record Systems Transform Healthcare? Potential Health Benefits, Savings, and Costs*, at 24 HEALTH AFFAIRS 1103 (2005). It is estimated, however, that implementing EHRs across the entire U.S. healthcare system could cost upwards of \$100 billion. See David Goldman, *Obama’s Healthcare Challenge*, CNN MONEY, Jan. 12, 2008, available at [http://money.cnn.com/2009/01/12/technology/stimulus\\_health\\_care/index.htm](http://money.cnn.com/2009/01/12/technology/stimulus_health_care/index.htm).

consumers with real-time consumption information. A wide-scale “smart grid” will have a number of impacts on the energy sector. These include:

- *More efficient energy distribution.* According to the U.S. Department of Energy, “electricity losses in the transmission and distribution systems exceed 10 percent of total energy generated.”<sup>89</sup> These losses cost rate payers hundreds of millions of dollars per year; reducing them via a smart grid could result in better energy efficiency and cost savings.<sup>90</sup>
- *Lower carbon emissions.* The U.S. Department of Energy estimates that robust use of the smart grid could equate to eliminating fuel and greenhouse gas emissions from 53 million cars.<sup>91</sup> In addition, the FCC has estimated that use of the smart grid may save between 60MM and 480MM tons of carbon emissions per year, while annually creating \$6 billion to \$40 billion in value.<sup>92</sup>
- *More diverse fuel supply.* An intelligent grid that can monitor and react to changes in consumer usage in real-time will enable the incorporation of key renewable energy fuel sources – e.g., wind and solar – that are also intermittent in nature.<sup>93</sup> This will boost the energy supply

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<sup>89</sup> See U.S. DEPARTMENT OF ENERGY, NATIONAL TRANSMISSION GRID STUDY at 63 (May 2002), available at <http://www.pi.energy.gov/documents/TransmissionGrid.pdf>.

<sup>90</sup> *Barriers*, *supra* note 20 at 51.

<sup>91</sup> See LITOS STRATEGIC COMMUNICATION, THE SMART GRID: AN INTRODUCTION at 7 (2008), available at [http://www.oe.energy.gov/DocumentsandMedia/DOE\\_SG\\_Book\\_Single\\_Pages.pdf](http://www.oe.energy.gov/DocumentsandMedia/DOE_SG_Book_Single_Pages.pdf) [hereinafter “*Smart Grid Introduction*”].

<sup>92</sup> *FCC Broadband Taskforce Presentation*, *supra* note 9 at Slide 108 (citing: Normalized from *The iGridProject*, The Brattle Group, July 2009; *Smart 2020: Enabling the Low Carbon Economy in the Information Age*, United States Report Addendum, GESI and BCG, Nov. 2008; *Power Delivery System of the Future: A Preliminary Estimate of Costs and Benefits*, EPRI, July 2004; *The Green Grid: Energy Savings and Carbon Emissions Reduced Enabled by a Smart Grid*, EPRI, Jun. 2008).

<sup>93</sup> *Barriers*, *supra* note 20 at 53.

and cut carbon emissions.<sup>94</sup> According to one study, “integrating wind or solar power into the grid at scale – at levels higher than 20 percent – will require advanced energy management techniques and approaches at the grid operator level. The Smart Grid’s ability to dynamically manage all sources of power on the grid means that more distributed generation can be integrated within it.”<sup>95</sup>

Second, households and businesses are using an array of broadband-enabled energy efficiency tools to decrease consumption, limit carbon emissions, and save money. In combination with other “holistic” approaches “executed at scale,” widespread and coordinated energy efficiency programs, which would include broadband-enabled smart grid services and devices, could result in over \$1.2 trillion in gross energy savings thru 2020.<sup>96</sup> This approach is expected to “reduce end-use energy consumption in 2020 by 9.1 quadrillion BTUs, roughly 23 percent of projected demand, potentially abating 1.1 gigatons of greenhouse gases annually.”<sup>97</sup> Specific examples of these types of tools include:

- *Demand response programs.* The constant flow of real-time usage data, and a consumer’s ability to access that data via an online portal, will allow the customer to alter usage patterns and lower their bills via responsive

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<sup>94</sup> See, e.g., *Wiser Wires*, THE ECONOMIST, Oct. 8, 2009 (observing that “More intelligence in the grid would also help integrate renewable sources of electricity, such as solar panels or wind turbines. As things stand, the trouble is that their output, being hostage to the weather, is highly variable. A standard grid becomes hard to manage if too many of them are connected to it; supply and demand on electricity-transmission systems must always be in balance. A smart grid could turn on appliances should, for instance, the wind blow more strongly.”).

<sup>95</sup> *Smart Grid Introduction*, *supra* note 91 at 25 (citing a study by the European Wind Energy Association).

<sup>96</sup> See HANNAH CHOI GRANADE ET AL., MCKINSEY GLOBAL ENERGY AND MATERIALS, UNLOCKING ENERGY EFFICIENCY IN THE U.S. ECONOMY at iii, available at [http://www.mckinsey.com/client-service/electric-power-natural-gas/downloads/US\\_energy\\_efficiency\\_full\\_report.pdf](http://www.mckinsey.com/client-service/electric-power-natural-gas/downloads/US_energy_efficiency_full_report.pdf) [hereinafter “*McKinsey Energy Efficiency*”].

<sup>97</sup> *Id.*

pricing programs.<sup>98</sup> The Federal Energy Regulatory Commission (“FERC”) estimates that the potential reduction in consumption due to demand-response programs is approximately 41,000 MW per year.<sup>99</sup>

- *Smart meters.* These tools relay transmission and usage information in real-time to the consumer and provider, allowing for instantaneous adjustments to transmission and usage patterns.<sup>100</sup> Eventually, smart meters will allow customers to “set temperature preferences for their thermostats...or opt in or out of programs that let them use cleaner energy sources, such as solar or wind power.”<sup>101</sup>
- *Smart buildings.* Buildings contribute 43 percent of the carbon emissions in the United States.<sup>102</sup> The smart grid could allow buildings to be fitted with technologies that allow internal systems (e.g., heating and cooling) to seamlessly communicate with the electric grid.<sup>103</sup>

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<sup>98</sup> See, e.g., CHARLES RIVER ASSOCIATES, PRIMER ON DEMAND-SIDE MANAGEMENT at 30-32, (Feb. 2005), available at <http://siteresources.worldbank.org/INTENERGY/Resources/PrimeronDemand-SideManagement.pdf> (describing a real-time pricing pilot project in Chicago).

<sup>99</sup> See U.S. DEPT. OF ENERGY, SMART GRID SYSTEM REPORT at 30 (July 2009), available at [http://www.oe.energy.gov/DocumentsandMedia/SGSRMain\\_090707\\_lowres.pdf](http://www.oe.energy.gov/DocumentsandMedia/SGSRMain_090707_lowres.pdf) (citing a Dec. 2008 FERC staff report on advanced metering and demand response).

<sup>100</sup> *Barriers*, *supra* note 20 at 54.

<sup>101</sup> See *Building the Smart Grid*, THE ECONOMIST, June 4, 2009 available at [http://www.economist.com/sciencetechnology/tq/displaystory.cfm?STORY\\_ID=13725843](http://www.economist.com/sciencetechnology/tq/displaystory.cfm?STORY_ID=13725843).

<sup>102</sup> See BRACKEN HENDRICKS, CENTER FOR AMERICAN PROGRESS, WIRED FOR PROGRESS: BUILDING A NATIONAL CLEAN-ENERGY SMART GRID, VERSION 1.0 at 1 (Feb. 2009), available at [http://www.americanprogress.org/issues/2009/02/pdf/electricity\\_grid.pdf](http://www.americanprogress.org/issues/2009/02/pdf/electricity_grid.pdf) [hereinafter “*Wired for Progress*”].

<sup>103</sup> *McKinsey Energy Efficiency*, *supra* note 96 at 32 (arguing that viewing a building as one integrated system, “rather than as a set of independent end-uses,” can result in “additional energy savings in a cost effective manner”).

- *Telecommuting.* According to one study, “[e]ach Internet telecommuter saves about... 3500 kilowatt hours a year.”<sup>104</sup> Another study has found that “[t]elecommuting will reduce greenhouse gas emissions by 247.7 million tons due to less driving, 28.1 million tons due to reduced office construction, and 312.4 million tons because of energy saved by businesses.”<sup>105</sup>

Some have estimated that “better use of this sort of real-time information across the entire electrical grid could allow at least a 20 percent improvement in energy efficiency in the United States.”<sup>106</sup> With energy demand expected to increase by 30 percent by 2030, and with electricity prices projected to increase by 50 percent over the next several years, widespread adoption and use of smart grid-enabled consumer tools is critical to more efficient energy distribution and more affordable consumption for both individual customers and large institutions.<sup>107</sup>

### C. Conclusions

The preceding analysis supports three important observations.

First, even though broadband adoption continues to increase across the general population, a significant number of users remain unconnected. Indeed, more than half of some demographic groups – including seniors, those earning less than \$20,000 per year, and people with disabilities – have yet to adopt broadband even though it is widely

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<sup>104</sup> See JOSEPH ROMM, THE INTERNET AND THE NEW ENERGY ECONOMY in WORLD WILDLIFE FUND – SWEDEN, SUSTAINABILITY AT THE SPEED OF LIGHT (Dennis Pamlin, ed.) at 39 (2002), available at [http://assets.panda.org/downloads/wwf\\_ic\\_1.pdf](http://assets.panda.org/downloads/wwf_ic_1.pdf).

<sup>105</sup> See JOSEPH P. FUHR JR. & STEPHEN B. POCIASK, THE AMERICAN CONSUMER INSTITUTE CENTER FOR CITIZEN RESEARCH BROADBAND SERVICES: ECONOMIC AND ENVIRONMENTAL BENEFITS (Oct. 2007), available at <http://www.theamericanconsumer.org/2007/10/31/broadband-services-economic-and-environmental-benefits/>.

<sup>106</sup> *Wired for Progress*, *supra* note 102 at 31.

<sup>107</sup> See LITOS STRATEGIC COMMUNICATION TECHNOLOGY PROVIDERS: ONE OF SIX SMART GRID STAKEHOLDER BOOKS at 3 (2008), available at <http://www.oe.energy.gov/DocumentsandMedia/TechnologyProviders.pdf>.

available.<sup>108</sup>

Second, broadband is having positive impacts on individual users and the overall U.S. economy, and is an increasingly vital platform that enables economic opportunities for all users. However, these benefits depend on actual adoption and effective utilization of a broadband connection. Mere connectivity is “not enough.”<sup>109</sup>

Third, broadband is poised to transform individual sectors of the economy. For example, broadband has the potential to shift the traditional healthcare paradigm towards more individualized care that is focused on disease prevention, not disease management.<sup>110</sup> In addition, broadband will be indispensable to energy efficiency efforts on the user-end and the provider-end.<sup>111</sup>

In light of the many life-enhancing impacts, consumer welfare gains, and cost savings enabled by broadband, increasing broadband adoption among under-adopting groups and maximizing the adoption rate for the general population should be a priority for policymakers.

## II BROADBAND ADOPTION DYNAMICS: AN INTRODUCTION & A CASE STUDY

An essential prerequisite to developing effective policies that seek to enhance actual utilization of broadband is an understanding of the dynamics associated with broadband adoption. Section II highlighted two important characteristics of broadband adoption: (1) adoption decisions vary from user group to user group and (2) a number of factors influence these decisions. Part A of this section develops these observations in more detail.

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<sup>108</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 13-14; *Broadband in America*, *supra* note 7 at 3.

<sup>109</sup> Levin, *Wired for Social Justice*, *supra* note 22 at 5-6 (“connectivity to devices is just not enough... we must weave our investments in digital access into the fabric of our communities.”).

<sup>110</sup> *See, e.g., Broadband & Telemedicine*, *supra* note 59 at 3.

<sup>111</sup> *See, e.g., Barriers*, *supra* note 20 at 51-55.

Part B provides a case study of these dynamics by focusing on how the senior demographic approaches broadband adoption decisions. The case study then assesses the effectiveness of a training program on broadband adoption among senior citizens living in New York City. This section concludes with a set of best practices and guiding principles for spurring broadband adoption across all user groups that are extracted from this case study.

#### A. An Introduction to Broadband Adoption Dynamics

Technology adoption is generally a multi-stage process.<sup>112</sup> To date, much of the technology adoption literature has focused on each step of this process in order to understand how and why potential users decide to adopt a certain technology.<sup>113</sup> Oftentimes users are sorted into different categories based on how quickly they adopt a technology.<sup>114</sup> In addition, these groups of users are often identified based on their perceptions of a given innovation.<sup>115</sup> These usually include early adopters, who are generally more avid users of technologies, and laggards, who are usually

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<sup>112</sup> See, e.g., Anja Lambrecht, Katja Seim & Catherine Tucker, *Stuck in the Adoption Funnel: The Effect of Delays in the Adoption Process on Ultimate Adoption*, NET Institute Working Paper No. 07-40 (May 2009), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=941697#](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=941697#) (analyzing “the relationship between time spent in different stages of the adoption process and whether the customer ultimately uses the technology substantially,” at 1) (hereinafter “*Adoption Funnel*”).

<sup>113</sup> For a seminal work on this subject, See EVERETT M. ROGERS, *DIFFUSION OF INNOVATIONS* (5<sup>th</sup> ed. 2003).

<sup>114</sup> See GEOFFREY A. MOORE, *CROSSING THE CHASM: MARKETING AND SELLING DISRUPTIVE PRODUCTS TO MAINSTREAM CUSTOMERS* at 12-14 (2002). Moore draws on Rogers’ research in identifying five different types of potential adopters: (1) innovators; (2) early adopters; (3) early majority; (4) late majority; and (5) laggards).

<sup>115</sup> With regard to adoption of innovative new technologies, Rogers links individuals’ perceptions of an innovation with their decision to adopt it. In particular, he identifies five characteristics of innovations “individuals’ perceptions of these characteristics predict the rate of adoption of innovations.” These five characteristics are: (1) perceived attributes of innovation; (2) type of innovation-decision; (3) communication channels; (4) nature of the social system; and (5) extend of change agents’ promotion efforts. ROGERS, *DIFFUSION OF INNOVATIONS*, *supra* note 113 at 219-222.

skeptical of new technologies.<sup>116</sup> Much of this literature has approached technology adoption from a marketing perspective and has profiled these niches of users for use in bolstering utilization of new products.<sup>117</sup>

Moreover, many studies generally provide qualitative analyses of user types in order to provide a framework for assessing adoption decisions. Empirical assessments have contributed to this literature by providing more granular insight into the adoption process. For example, a recent study has identified an “adoption funnel” that describes high rates of technology adoption (e.g., signing up for a particular service) and progressively lower rates of actual usage.<sup>118</sup> This study also observed a relationship between the time it takes for a user to adopt a technology and a “customer’s probability of substantially using” it.<sup>119</sup> Those who adopt a technology sooner tend to use it more often, whereas someone who delays adoption tends to use the service less frequently. These types of analyses provide further insight into traditional qualitative frameworks for assessing technology adoption decisions and the diffusion of innovative new services across the general population.<sup>120</sup>

Broadband adoption decisions are impacted by many of the factors discussed above. These include the availability of broadband, awareness

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<sup>116</sup> MOORE, CROSSING THE CHASM, *supra* note 114 at 12-13.

<sup>117</sup> *See, e.g.*, GEOFFREY A. MOORE, INSIDE THE TORNADO: STRATEGIES FOR DEVELOPING, LEVERAGING AND SURVIVING HYPERGROWTH MARKETS TORNADO at 20-21 (Collins Business Essentials) (2005) (identifying “the chasm” between the “early market” for new technologies and the “mainstream market” and observing that “whenever truly innovative high-tech products are first brought to market, they will initially enjoy a warm welcome in an early market made up of technology enthusiasts and visionaries but then fall into a chasm, during which sales will falter and often plummet. If the products can successfully cross this chasm, they will gain acceptance within a mainstream market dominated by pragmatists and conservatives.”).

<sup>118</sup> *Adoption Funnel*, *supra* note 112 at 1.

<sup>119</sup> *Id.*

<sup>120</sup> *Id.* at 3-4 (observing that many “aggregate diffusion studies usually treat the outcome of the individual adoption decision as a single discrete choice” whereas others have observed that “the adoption process often requires the completion of several distinct stages involving multiple decision-makers or other complicating factors”).

of its value, and adequate knowledge of how to use it.<sup>121</sup> However, the reasons for non-adoption are more nuanced than those set forth in much of the traditional technology adoption literature. For example, as previously discussed, broadband adoption decisions tend to be sector-specific and often do not lend themselves to generalized classification. To this end, one recent report studied broadband adoption decisions among six distinct user groups – two demographic groups (senior citizens and people with disabilities) and four sectors (telemedicine, energy, education, and government) – and observed that each group or sector faced a unique set of barriers to further adoption.<sup>122</sup> In particular:

- “For senior citizens, a general lack of adequate education and training are key contributors to a relatively low broadband adoption rate;
- For people with disabilities, widespread negative perceptions regarding the accessibility of broadband impedes further adoption and use of this technology;
- In the telemedicine sector, a number of outdated legal and policy frameworks hinder more robust adoption and use of broadband-enabled telemedicine services by patients and healthcare providers;
- In the energy arena, the highly regulated and conservative nature of many energy utilities challenges the dynamic nature of broadband and the ecosystem of innovation that it fosters;
- In the education space, lack of targeted funding and inadequate training impede further adoption and

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*See, e.g., Broadband & Seniors, supra* note 24 at 6; *Broadband & People with Disabilities, supra* note 49 at 8 (both provide a framework for analyzing broadband adoption within the relevant user group). Rogers describes these factors as compatibility (“the degree to which an innovation is perceived as consistent with the existing values” of a user group), complexity (“the degree to which an innovation is perceived as relatively difficult to understand and to use”), trialability (“the degree to which an innovation may be experimented with”), and observability (“the degree to which the results of an innovation are visible to others,” ROGERS, *DIFFUSION OF INNOVATIONS, supra* note 113 at 266.

<sup>122</sup> *Barriers, supra* note 20 at 2.

usage of broadband and broadband-enabled educational tools in schools across the country; and

- For government entities, institutional inertia and a lack of cross-government collaboration regarding best practices have slowed the effective integration of broadband into many government processes.”<sup>123</sup>

The FCC has identified additional factors that influence broadband adoption decisions such as perceptions regarding the usefulness of broadband and proximity to a digital support system.<sup>124</sup> In light of the variety of factors influencing broadband adoption, the FCC has concluded that “proposed solutions [for increasing broadband adoption] should address segment-specific needs.”<sup>125</sup>

The dynamics of broadband adoption thus include:

- The *availability* of a broadband connection. Broadband must be available for it to be adopted;
- *Awareness* of its availability and of the benefits that its use can enable. Early adopters are usually the only ones who adopt a technology without being fully aware of how it may impact their lives;<sup>126</sup>
- *Demand* for connection. Demand is impacted by a number of factors, which tend to vary from user group to user group.<sup>127</sup> For example, a major barrier to adoption among certain user groups (e.g., people with disabilities)

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<sup>123</sup> *Id.*

<sup>124</sup> *FCC Broadband Taskforce Presentation, supra* note 9 at Slide 87.

<sup>125</sup> *Id.* at Slide 92.

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MOORE, *CROSSING THE CHASM*, *supra* note 114 at 12 (observing that early adopters are “people who find it easy to imagine, understand, and appreciate the benefits of a new technology, and to relate these potential benefits to their other concerns”).

<sup>127</sup> *See generally Barriers, supra* note 20 (identifying major barriers to broadband adoption among six different user groups).

is a general perception that broadband is difficult to use;<sup>128</sup>

- *Actual adoption* of the technology. This includes not only subscribing to the service, but also possession of necessary supporting technologies (e.g., a computing device for all users and necessary assistive technologies for disabled users;)<sup>129</sup> and
- *Effective utilization* of the connection. This depends on the level of skill that a user possesses and the ability to use a broadband connection in a “useful” way.<sup>130</sup>

## B. Broadband Adoption & Senior Citizens: A Case Study

The following case study focuses on (1) the current state of broadband adoption among senior citizens, (2) barriers to further broadband adoption among older adults, and (3) an overview of an approach to spurring broadband adoption among senior citizens living in New York City. This case study seeks to underscore the sector-specific nature of broadband adoption dynamics and the need for policies that address these distinct needs.

### 1. *Overview of Broadband Adoption among Senior Citizens*

Currently, only 35 percent of adults over the age of 65 have adopted broadband, compared to 75 percent of those aged 18-29.<sup>131</sup> Moreover, a “gray gap” has resulted in nearly 85 percent of adults over the age of 76 unconnected to broadband.<sup>132</sup> However, there is a general upward trend in broadband adoption among this demographic group.

Broadband adoption by adults over 65 has increased more than any

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<sup>128</sup> *Id.* at 25-26.

<sup>129</sup> *Broadband & People with Disabilities*, *supra* note 49 at 12-13 (discussing the various types of assistive technologies available to people with disabilities).

<sup>130</sup> *Useful Connectivity*, *supra* note 48.

<sup>131</sup> *Broadband in America*, *supra* note 7 at 13.

<sup>132</sup> *Generations Online in 2009*, *supra* note 25 at 5.

other age group over the last several years. The percent change in broadband adoption between 2008 and 2009 among adults over 65 was approximately 58 percent.<sup>133</sup> Similarly, senior use of mobile Internet grew by 67 percent between April 2008 and April 2009.<sup>134</sup> Senior growth rates for both broadband and mobile Internet adoption outpaced all other age groups over the past year. Yet, seniors continue to have the lowest broadband adoption rate of any other age group and one of the lowest for any demographic group. A number of reasons account for this relatively low adoption rate.

## 2. *Barriers to Broadband Adoption for Senior Citizens*

Seniors face a number of barriers to further adoption and usage of broadband. For example, seniors are more likely to be located in non-traditional living arrangements that are not conducive to robust broadband adoption. According to the U.S. Department of Agriculture (USDA), some 15 percent of seniors live in rural areas, compared with just 12 percent of the general population.<sup>135</sup> In addition, the USDA has observed that, compared to their more urban counterparts, rural seniors “generally have less income, lower educational attainment, and a higher dependence on social security income.”<sup>136</sup> Broadband availability and adoption rates tend to be much lower in rural parts of the country than in non-rural parts.<sup>137</sup>

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<sup>133</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 15.

<sup>134</sup> *See Women, Teens, and Seniors Help Fuel 34% Mobile Web Spike*, NIELSEN WIRE, Sept. 30, 2009, available at [http://blog.nielsen.com/nielsenwire/online\\_mobile/mobile-web-up-34-percent-july-09/](http://blog.nielsen.com/nielsenwire/online_mobile/mobile-web-up-34-percent-july-09/).

<sup>135</sup> *See U.S. Dept. of Agriculture, Rural Population and Migration: Trend 6—Challenges From an Aging Population*, (2007) <http://www.ers.usda.gov/Briefing/Population/Challenges.htm> (last visited December 22nd, 2009).

<sup>136</sup>

*Id.*

<sup>137</sup> *See, e.g.,* MICHAEL J. COPPS, FEDERAL COMMUNICATIONS COMMISSION BRINGING BROADBAND TO RURAL AMERICA: REPORT ON A RURAL BROADBAND STRATEGY at 12 (May 22, 2009), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-291012A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-291012A1.pdf) (“Although inexact, currently available data and studies suggest that, in comparison to non-rural areas, broadband services are less extensively adopted in rural areas generally, and that this stems in part from less extensive deployment of broadband capability in

Moreover, even though a majority of adults over the age of 65 live at home, a little over four percent live in nursing homes.<sup>138</sup> However, these numbers vary widely among generations of seniors. While only one percent of seniors between 65 and 74 are in nursing homes; this number rises to 15 percent for those over age 85.<sup>139</sup> Thirty percent of seniors live alone.<sup>140</sup> These trends are important because the traditional household is a valuable source of information about computers and the Internet for seniors, as children and grandchildren are likely to utilize such technologies.<sup>141</sup> Data also suggest that broadband use is positively correlated with marital status, or living with a partner, and whether one is the parent of a minor child in the household.<sup>142</sup>

Other barriers to broadband adoption among senior citizens include:

- *Low rate of computer ownership.* As a group, senior citizens are less likely than any other age group to own a computer.<sup>143</sup> As the Consumer Electronics Association has observed, “[a]dults over the age of 65 are 21 percent less likely to own a home computer than adults under the age of 30.”<sup>144</sup> Owning or having access to a

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rural areas.”).

<sup>138</sup> See U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, ADMINISTRATION ON AGING, A PROFILE OF OLDER AMERICANS: 2008 at 5 (2009), available at [http://www.aoa.gov/AoARoot/Aging\\_Statistics/Profile/2008/docs/2008profile.pdf](http://www.aoa.gov/AoARoot/Aging_Statistics/Profile/2008/docs/2008profile.pdf).

<sup>139</sup>

*Id.*

<sup>140</sup> *Id.*

<sup>141</sup> *Barriers*, *supra* note 20 at 15.

<sup>142</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 38.

<sup>143</sup> SEE SUSANNAH FOX, PEW INTERNET & AMERICAN LIFE PROJECT OLDER AMERICANS AND THE INTERNET at 3 (March 2004), available at [http://www.pewinternet.org/~media/Files/Reports/2004/PIP\\_Seniors\\_Online\\_2004.pdf](http://www.pewinternet.org/~media/Files/Reports/2004/PIP_Seniors_Online_2004.pdf) [hereinafter “*Older Americans*”].

<sup>144</sup> See CONSUMER ELECTRONICS ASSOCIATION, BROADBAND IN AMERICA: ACCESS, USE AND OUTLOOKS, at 6 (July 2007), available at [http://www.ce.org/PDF/CEA\\_Broadband\\_America.pdf](http://www.ce.org/PDF/CEA_Broadband_America.pdf) [hereinafter *CEA Report*].

computer is essential to using wire-based broadband and is essential for developing technology skills and overcoming initial cost-barriers to broadband adoption.<sup>145</sup>

- *Lack of interest or skepticism regarding the value of broadband.* Seniors are more likely than any other age group to cite low interest or lack of relevance to their lives as a reason for not adopting broadband. Among seniors without broadband access, 44 percent state that they are not interested in broadband, nothing could get them to switch, or they are just too busy;<sup>146</sup> only eight percent of adults ages 18 to 29, and 26 percent of those 50 to 64, made such claims.<sup>147</sup> Seniors as a group did not grow up using computers and the Internet and may also not have been in the workforce when computers became standard.<sup>148</sup> Indeed, according to a study from 2004, seniors “often live lives far removed from the Internet, know few people who use email or surf the Web, and cannot imagine why they would spend money and time learning how to use a computer.”<sup>149</sup> A lack of understanding of what broadband is and what it can do thus remains a large obstacle.<sup>150</sup>

- *Online safety concerns.* Older adults tend to be

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<sup>145</sup> *Barriers*, *supra* note 20 at 13.

<sup>146</sup> *Home Broadband Adoption 2009*, *supra* note 11 at 42-43.

<sup>147</sup> *Id.*

<sup>148</sup> See FCC National Broadband Plan Workshop Building the Fact Base: The Standard of Broadband Adoption and Utilization at 78-79 (August 19, 2009) (Statement of Susannah Fox, Associate Director, Digital Strategy, Pew Internet & American Life Project), available at [http://www.broadband.gov/docs/ws\\_09\\_adoption\\_utilization.pdf](http://www.broadband.gov/docs/ws_09_adoption_utilization.pdf) [hereinafter “*Fox FCC Comments*”].

<sup>149</sup> *Older Americans*, *supra* note 143 at 11.

<sup>150</sup> See William G. Korver, *Broadband Adoption and Not Availability is Key Challenge, Says One Economy*, July 31, 2008, BROADBANDCENSUS.COM, <http://broadbandcensus.com/blog/?p=225>; *Broadband in America*, *supra* note 7 at 30.

wary of providing personal information online. Pew found that 82 percent of senior Internet users did not like sharing their credit card number or personal information online, compared with 71 percent of those aged 18 to 29.<sup>151</sup>

Anxiety over Internet use stems largely from the many reports of identity theft, viruses, malware, Internet fraud, and technology breakdowns.<sup>152</sup> A 2008 study found that older adults are afraid of venturing into chatrooms, where they might fall victim to predatory conduct.<sup>153</sup> In addition, many seniors doubt the trustworthiness of online information sources.<sup>154</sup> Moreover, some seniors express a fear of having their financial information or e-mail address to fall into the wrong hands.<sup>155</sup>

- *Lack of training to effectively use a broadband connection.* Many baby boomers and younger seniors typically develop computer and Internet skills in the workplace, carrying those skills into retirement.<sup>156</sup> However, many older seniors likely left the workforce before computers were regularly used.<sup>157</sup> Thus, many now

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<sup>151</sup> See JOHN HERRIGAN, PEW INTERNET & AMERICAN LIFE PROJECT, *ONLINE SHOPPING*, at 8, (Feb. 2008), available at [http://www.pewinternet.org/~media/Files/Reports/2008/PIP\\_Online%20Shopping.pdf.pdf](http://www.pewinternet.org/~media/Files/Reports/2008/PIP_Online%20Shopping.pdf.pdf).

<sup>152</sup> See OATS “*Family Link*” Program, Older Adults Technology Services (Jan. 2008).

<sup>153</sup> See S.L. Gatto & S.H. Tak, *Computer, Internet, and E-mail Use Among Older Adults: Benefits and Barriers*, EDUCATIONAL GERONTOLOGY: AN INTERNATIONAL JOURNAL, 34(4), 800-811 (2008) [hereinafter “*Computer, Internet, and E-mail Use Among Older Adults*”].

<sup>154</sup> *Id.*

<sup>155</sup> *Id.*

<sup>156</sup> See ARKANSAS GERIATRIC EDUCATION CENTER, *Perceived Benefits and Barriers of Computer, Internet, and E-mail Use by Older Adults*, AGECE VISION, vol. 9, no. 2, available at [http://www.agec.org/news/news\\_app.asp?id=178](http://www.agec.org/news/news_app.asp?id=178).

<sup>157</sup> See, e.g., ROB SALKOWITZ, GENERATION BLEND: MANAGING ACROSS THE TECHNOLOGY AGE GAP 67 (Wiley 2008) (noting that many members of the “Silent generation” [i.e., those born between 1925 and 1945] are “the most likely generation to have avoided digital

lack the requisite skills to use broadband to enhance their lives.<sup>158</sup> To this end, a survey of older adults participating in a SeniorNet computer-learning course found that personal frustrations, functional limitations, and time constraints were among the most significant barriers to Internet use.<sup>159</sup> Many of the participants had experienced frustration with their own perceived limitations during the learning process.<sup>160</sup> Mental and physical limitations include their perceived lack of knowledge of computer skills, loss of mental acuity, and mobility limitations. Other seniors feared that they lacked enough time to learn how to effectively use the technology.<sup>161</sup>

Despite these many formidable barriers to further broadband adoption, anecdotal evidence suggests that, once seniors adopt broadband and receive training on how to use their connection, they are very capable users.<sup>162</sup> Indeed, seniors who go online regularly are active email users,<sup>163</sup> are among the most avid searchers for health information,<sup>164</sup> and are increasingly participating in social media like blogs.<sup>165</sup> These and

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technology in their work and lives. Even the youngest were well into their careers when general-purpose computers appeared in the workplace, and older still when they became affordable as consumer devices. Many Silents express an initial fear or reluctance to experiment with technology.”).

<sup>158</sup> *Fox FCC Comments, supra* note 148 at 78-79.

<sup>159</sup> *Computer, Internet, and E-mail Use Among Older Adults, supra* note 153.

<sup>160</sup> *Id.*

<sup>161</sup> *Id.*

<sup>162</sup> *Broadband & Seniors, supra* note 24 at 12.

<sup>163</sup> *Older Americans, supra* note 143 at ii.

<sup>164</sup> *See* Susannah Fox, *Panel: Can the Health Informatician Help Seniors Cross the Digital Divide?* at 3, Pew Internet and American Life Project (Nov. 2006).

<sup>165</sup> *See, e.g.,* Carla K. Johnson, *Senior Citizen Bloggers Defy Stereotypes*, USA TODAY, Nov. 6, 2005, available at [http://www.usatoday.com/tech/news/2005-11-06-geezer-blog\\_x.htm](http://www.usatoday.com/tech/news/2005-11-06-geezer-blog_x.htm).

other activities are important since regular Internet usage has been found to stimulate brain activity and sharpen mental acuity.<sup>166</sup> Moreover, as discussed above, effective utilization of broadband can result in a number of positive welfare gains for seniors (e.g., more affordable prescription drugs, in-home telemedicine services, etc.).

Effective approaches for overcoming these barriers have been developed and implemented in municipalities across the country.<sup>167</sup> Many of these programs provide tailored training services for older adults. The next section describes an approach that has been launched in New York City.

### 3. *A Case Study of Older Adults Technology Services*

It is widely agreed that targeted education and awareness initiatives are effective in spurring broadband adoption among specific user groups, including senior citizens.<sup>168</sup> These programs address the unique needs of different user groups by tailoring training programs to meet specific needs. One organization that has succeeded in developing an effective model for increasing awareness of broadband and spurring adoption of it among senior citizens is Older Adults Technology Services (OATS).<sup>169</sup>

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<sup>166</sup> For example, a recent UCLA study found that “for computer-savvy middle-aged and older adults, searching the Internet triggers key centers in the brain that control decision-making and complex reasoning. The findings demonstrate that Web search activity may help stimulate and possibly improve brain function.” See Rachel Champeua, *UCLA Study Finds that Searching the Internet Increases Brain Function*, UCLA NEWSROOM, Oct. 14, 2008, available at <http://newsroom.ucla.edu/portal/ucla/ucla-study-finds-that-searching-64348.aspx>; see also *UCLA Study: The Internet is Altering our Brains*, FOXNEWS.COM Oct. 19, 2009, available at <http://www.foxnews.com/story/0,2933,568576,00.html?test=latestnews>.

<sup>167</sup> For an overview of demand stimulation programs that target a broader swath of potential users, see Janice Hauge & James E. Prieger, *Demand-Side Programs to Stimulate Broadband Adoption: What Works?* (Oct. 14, 2009) (Unpublished Manuscript, available at <http://ssrn.com/abstract=1492342>) [hereinafter “*Demand-Side Programs*”].

<sup>168</sup> *Broadband & Seniors*, *supra* note 24 at 31-35; *FCC Broadband Taskforce Presentation*, *supra* note 9 at Slide 92.

<sup>169</sup> See OATS, <http://www.oatsny.org> (last visited Dec. 20, 2009).

This section provides a case study of the OATS model in order to highlight best practices for increasing adoption and utilization of broadband by seniors.<sup>170</sup>

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OATS, a New York City-based nonprofit founded in 2004, has attempted to overcome many of the barriers to broadband adoption among seniors in a coordinated and strategic manner. First, OATS surveyed a number of senior services organizations in diverse neighborhoods to learn why many efforts to teach older individuals in community labs were failing to sustain classes and interest from participants. Their research identified several key factors that detracted from success.

- A lack of appropriate, quality technology devices and connectivity. Computers in many public computing labs were often not functioning adequately or not connected to reliable Internet lines (i.e., not broadband).
- Many training programs were not customized for older learners. Trainers used generic curriculum such as “Computers for Dummies,” which present information too quickly and with no sensitivity to the learning priorities or styles of older individuals.
- Many training programs relied on either volunteer educators or very low paid episodic consultants who taught under short-term contracts at the centers. High turnover of trainers contributed to dissatisfaction among participants.
- Finally, many of the programs simply failed to take advantage of the rich context in which seniors were learning. No effort was made to link content in course guides to specific opportunities such as health resources, government services, social activities, or workforce

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<sup>170</sup> Some of this information can be found in *Broadband & Senior Citizens*, *supra* note 25 at 11. The remainder of the information was provided by co-author Kamber, who is the Founder and Executive Director of OATS, and is based on first-hand knowledge and on data OATS has collected over the past several years. This and other data is available upon request.

training programs.

OATS worked to address this problem by developing a high capacity city-wide training program with curriculum specifically adapted to the patterns and learning styles of older adults. The curriculum focused immediately on teaching older adults to use the Internet and e-mail. Courses were structured to meet twice weekly for 75 minutes, to facilitate retention and minimize participant fatigue.

Second, OATS hired a cadre of trainers dedicated entirely to the task of training older adults and deployed those trainers across the city in partnership with local sites, which were responsible for recruitment of the senior participants and maintenance of the lab environment (e.g., computer equipment and Internet connections<sup>171</sup>). Because OATS trainers develop very high levels of competency supported by the organization's professional development program, and because they had the opportunity to develop large pools of experience, the organization was able to provide higher quality training in a sustainable fashion. After five years of operation, most OATS trainers have taught over 500 class sessions, and one has taught over 1,000 sessions to older adults.

In addition, the OATS model assumes that, not only do seniors want to learn to use computers, but one of the critical barriers for ongoing participation is their lack of opportunity to connect to other older Internet users and build community amongst senior citizens. To address these needs, OATS developed a “digital community” based around a website – [www.seniorplanet.org](http://www.seniorplanet.org) – which provided a chance for seniors to share resources through a wiki-based resource guide, to learn about community events through a weekly calendar of events (emailed to nearly 2,000 participants), and finally to have a voice in the Internet through an easy-to-use blogging functionality.

OATS has also begun to diversify its program offerings. For example, OATS organized and operated 28 clinics around New York City to train seniors how to use the newly launched Medicare Part D website, which provided seniors with a wide array of choices for purchasing prescription drug insurance plans. As a result of OATS's

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<sup>171</sup> OATS will only provide its services in venues that have a broadband connection. *Broadband & Senior Citizens*, *supra* note 25 at 11.

efforts, senior participants saved a total of \$19,000 on their drug costs.<sup>172</sup> OATS has also partnered with Per Scholas ([www.perscholas.org](http://www.perscholas.org)), a computer recycling company based in New York City, to provide free computers to seniors who complete a 10-week training course.<sup>173</sup> After seniors graduate, Per Scholas delivers and installs a computer in the senior's home. The expectation is that seniors will subscribe to broadband after having experienced it in their class.

To date, the results of these various initiatives and programs have been very positive, with strong increases in computer usage, communications with family and friends, use of the Internet for health research, and confidence living independently. Eighty-nine percent of participants surveyed in a recent study indicated they planned to take another OATS course. Overall, the program has achieved rapid growth, training more than 1,500 seniors a year in collaboration with over 50 community partners, and has received support from the local and state government, more than a dozen private and corporate foundations, and a wide range of community partners who contribute cash and in-kind resources to sustain the trainings.

These results support the conclusion that high-quality programming, sustained over time in partnership with local organizations, with curriculum, training, and support tailored to the particular needs of demographic segments, can be very successful at converting large numbers of under-served individuals into broadband adopters. The implications for policymakers are significant. Currently there are no local, state, or federal programs to support these kinds of services for older adults, despite the measurable benefit of initiatives that promote broadband adoption.<sup>174</sup> In addition, government policies and practices that can help reverse the technology gap for older adults should be considered. These might include creating more senior-friendly interfaces for public sector websites,<sup>175</sup> directing workforce development resources

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<sup>172</sup> *Id.* at 17-18.

<sup>173</sup> See Per Scholas, Comp2Seniors, <http://www.perscholas.org/c2s/index.html> (last visited Dec. 20, 2009).

<sup>174</sup> *Barriers*, *supra* note 20 at 17.

<sup>175</sup> *Id.* at 12-13.

toward retraining older adults on technology skills,<sup>176</sup> or expanding the definition of “durable medical devices” in the medical field to include a wider range of technology tools.<sup>177</sup>

### C. Conclusions

The preceding discussion underscores several important conclusions regarding broadband adoption dynamics.

First, there is agreement regarding the sector-specific nature of broadband adoption decisions. Unlike traditional technology adoption literature, it is difficult to sort adopters and non-adopters in the broadband context into ready-made categories. Non-adoption of broadband varies from sector to sector and oftentimes varies within a specific segment. For example, older physicians tend to be warier of adopting broadband-enabled telemedicine services.<sup>178</sup>

Second, given the sector-specific nature of broadband adoption, it is necessary to collect granular data in order to assess the contours of a given sector or segment. For example, knowing that younger seniors and baby boomers are adopting broadband at a higher rate than older seniors allows for more targeted efforts to raise awareness of broadband among this specific segment. Similarly, lack of such granular data regarding the broadband adoption rates and factors impacting adoption decisions for people with specific types of disabilities is a major impediment to more targeted efforts for spurring further adoption and usage of broadband within this segment of the population.<sup>179</sup>

Third, in order to develop effective policies, stakeholders, including policymakers, regulators, service providers, innovators, and educators,

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<sup>176</sup> *Id.* at 16 (highlighting clauses in the Medicare and Social Security laws that create disincentives for working past retirement).

<sup>177</sup> *Id.* at 37-38 (observing that there is a general lack of adequate reimbursement mechanisms in most insurance programs to cover new telemedicine devices).

<sup>178</sup> *Id.* at 50; *see also* Heath Stover, *The Truth About EMR- Physician Resistance*, *EzineArticles*, available at <http://ezinearticles.com/?id=878043>.

<sup>179</sup> *Barriers*, *supra* note 20 at 29-30.

must appreciate the wide range of policy and non-policy barriers that influence adoption decisions. Identifying these barriers will likely include a thorough survey of individual user groups in order to understand the interplay between certain policies and adoption decisions. Moreover, a close examination will likely reveal important nuances in how a particular policy might negatively impact the adoption decisions of one user group but not another. For example, many senior citizens elect not to go online due to a fear of identity theft.<sup>180</sup> However, such concerns are not as widespread among other under-adopting groups (e.g., people with disabilities). Understanding these contours will facilitate the development of more carefully tailored policies and approaches to spurring broadband adoption.

Fourth, once the barriers to broadband adoption for a specific user group have been identified, it is necessary to carefully formulate and tailor outreach initiatives to overcome these impediments. OATS provides a good model. It has succeeded in training thousands of senior citizens to use broadband largely because it undertook a comprehensive review of the needs of its target demographic. For policymakers and other stakeholders, data regarding the effectiveness of these types of programs would likely help with assessing whether a given approach is successful and capable of being used as a model in other contexts.<sup>181</sup>

Fifth, in order to scale out initiatives like OATS, it will be necessary to aggregate and disseminate best practices for effective education and outreach among discrete user groups. To date, there has been a lack of such coordination in many sectors.<sup>182</sup> The FCC is considering a “clearinghouse” approach regarding best practices for broadband deployment.<sup>183</sup> A similar idea has been proposed within the disabilities

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<sup>180</sup> *Id.* at 14.

<sup>181</sup> *Demand-Side Programs*, *supra* note 167 at 3 (observing that “reliable evidence establishing the effectiveness of existing demand-side policies has been insufficient”).

<sup>182</sup> *Barriers*, *supra* note 20 at 30 (highlighting a lack of best practices as a barrier to further broadband adoption among people with disabilities).

<sup>183</sup> *See Comment Sought on Broadband Clearinghouse*, National Broadband Plan Public Notice # 10, GN Docket No. 09-51 (Oct. 2, 2009), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-09-2167A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-2167A1.pdf) (noting that “several parties have suggested that a broadband clearinghouse should be created for

space.<sup>184</sup> Coordination at the local, state and national levels regarding best practices could bolster adoption efforts.

### III CONCLUSION

In order to realize the full range of welfare gains, cost savings, economic opportunities, and other positive benefits described in this article, it is essential that policymakers develop and implement policies that seek to maximize the broadband adoption rate. This article has argued that these efforts should not result in a one-size-fits-all approach. Rather, this article has highlighted the sector-specific nature of broadband adoption and underscored that a broad spectrum of factors influence these decisions. Given this dynamic, solutions must follow a similar logic and address the needs and barriers of particular demographics in order to draw them to broadband.

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easy access to broadband best practices” and that a “broadband clearinghouse could reduce information barriers for municipalities, agencies, businesses, and non-profits that want insights into more effectively utilizing broadband infrastructure, or into broadband deployment or adoption projects. Such a clearinghouse could also provide information and a forum for scholars and policymakers to gather and contribute data.”).

<sup>184</sup> See, e.g., *Broadband & People with Disabilities*, *supra* note 49 at 53-54.

**PROTECTING CONSUMERS BY TRACKING ADVERTISERS**  
**UNDER THE NATIONAL BROADBAND PLAN**

by

Courtney A. Barclay\*

The Federal Communications Commission (FCC) has consistently been charged with protecting American consumers from intrusive practices. The FCC has regulated telemarketers and email advertisers, as well as telecommunications carriers. The challenge now faced by the FCC is whether, and how, to regulate advertising via broadband as it develops a National Broadband Plan to expand the adoption of this technology.

In 2009, the FCC issued a Notice of Inquiry on a variety of issues pertaining to the development of the National Broadband Plan.<sup>1</sup> One area in which the FCC asked for public comment was the use of online tracking technologies for commercial purposes.<sup>2</sup> The FCC specifically asked about behavioral targeting and deep packet inspection to provide targeted online advertisements.<sup>3</sup> Behavioral targeting is the technique that advertisers use to analyze a person's web viewing habits "to predict user preferences or interests to deliver advertising to that computer or device based on the preferences or interests inferred from such Web viewing behaviors."<sup>4</sup> These technologies can be used in a pervasive manner to

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<sup>1</sup> In the Matter of a National Broadband Plan for Our Future, GN Docket No. 09-51, FCC 09-31 (Apr. 8, 2009) (hereinafter "FCC NOI"), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-31A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-31A1.pdf).

<sup>2</sup> *Id.* at 21-3.

<sup>3</sup> *Id.* at 22-3.

<sup>4</sup> American Association of Advertising Agencies, the Association of National Advertisers, the Better Business Bureau, the Direct Marketing Association, and the Interactive Advertising Bureau, Self-Regulatory Principles for Online Behavioral

track a user's movements and views not only on one site, but across multiple web sites and for extended lengths of time.

Online, targeted advertising is a growing market that provides many benefits to advertisers and consumers. For example, Google's content network allows advertisers to control the number of times an individual is exposed to a particular ad, as well as to get information on the number of persons viewing an ad and the average number of times those ads are viewed by an individual user. Google's system also provides consumers with the opportunity to opt out of certain types of advertising as well as the tracking technologies Google uses to provide advertisements relevant to the individual user.

Part I of this article discusses the traditions of privacy protection and the existing privacy protection laws in the United States, including past actions by the FCC to protect consumer privacy. Part II discusses online advertising practices and the associated privacy concerns for consumers. Part III examines the Federal Trade Commission's (FTC) recommended principles and the current industry guidelines adopted to protect consumer privacy. Part IV discusses the increased federal efforts to regulate online consumer tracking by the FTC, Congress, and the FCC. This article concludes with a discussion of the need for government regulation of online advertising, with emphasis on potential FCC recommendations as part of the National Broadband Plan.

## I PRIVACY PROTECTION IN THE UNITED STATES

The FCC pointed to consumer privacy as an area of concern in the development of a national broadband play.<sup>5</sup> However, lawmakers, scholars, and citizens have struggled to articulate a comprehensive definition of privacy.<sup>6</sup> The general acceptance of privacy as "right to be let alone," first asserted by Samuel Warren and Louis Brandeis in the late 1800s, is vague and incorporates a wide range of issues from protecting

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Advertising (July 2009) [hereinafter *Coop Principles*], available at <http://www.iab.net/media/file/ven-principles-07-01-09.pdf>.

<sup>5</sup> FCC NOI, *supra* note 1 at 21-23.

<sup>6</sup> Daniel J. Solove, *A Taxonomy of Privacy*, 154 U. Pa. L. Rev. 477, 479 (2006).

personal property to controlling the collection and dissemination of personal information.<sup>7</sup> In contrast to this sweeping definition, the legal protections for privacy have developed gradually in fragments to address specific issues one at a time.<sup>8</sup>

These piecemeal protections target distinct privacy concerns that can generally be described as either decisional or informational.<sup>9</sup> Decisional privacy refers to an individual's autonomy to make decisions about what to wear on a given day and what religion to practice. Informational privacy refers to use of personal information about an individual that "both expands and limits individual autonomy."<sup>10</sup> This latter category has found limited protection in the federal courts, which grant the government deference in determining when an invasion of informational privacy is necessary.<sup>11</sup> There has been some progress in the federal and state legislatures with varying levels of success.<sup>12</sup>

The long-standing privacy protection principles that have influenced the legislative progress originated in international law. These principles dictate that consumers need to be fully informed about what data is being collected, how the data will be used or shared, and how long the data will be retained. Consumers need to have a choice as to whether to provide this data. This section will explore those principles.

### A. Data Privacy Protection

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<sup>7</sup> See Jon L. Mills, *Privacy: The Lost Right* 14 (2008).

<sup>8</sup> Solove, *supra* note 6. See also, e.g., Health Insurance Portability and Accountability Act of 1996, Pub. Law No. 104-191, 110 Stat. 1936 (1996); Fair Credit Reporting Act of 1970, Pub. L. No. 91-508, 84 Stat. 1114 (codified as amended at 15 U.S.C. § 1681 et seq. (2009)); Family Educational Rights and Privacy Act of 1974, 20 USCS § 1232g (2009); Cable Communications Policy Act of 1984; Video Privacy Protection Act of 1998; Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003; Telephone Consumer Protection Act of 1991.

<sup>9</sup> Daniel J. Solove, Marc Rotenberg, & Paul M. Schwartz, *Information Privacy Law* 1 (Aspen 2006).

<sup>10</sup> *Id.*

<sup>11</sup> Will Thomas DeVries, *Protecting Privacy in the Digital Age*, 18 Berkeley Tech L.J. 283, 288 (2003).

<sup>12</sup> *Id.* at 289-90.

As the electronic collection and transfer of data became more prominent, nations began to adopt data protection laws. In 1980, the Organization of Economic Cooperation and Development (OECD) adopted guidelines for data privacy protection. The OECD is an organization consisting of thirty countries, including the United States, formed to promote economic development and individual liberty.<sup>13</sup> The guidelines adopted by the OECD were intended to serve as a model for legislation in member states.<sup>14</sup> The main principles of the OECD Guidelines are 1) limiting data collection, 2) data quality, 3) purpose specification, 4) limited use of data, 5) security safeguards, 6) openness, 7) individual participation, and 8) accountability.<sup>15</sup>

The OECD principles focus on the collection of data. The collection should be limited to legal means, and should be done with the knowledge and consent of the subject of the information. Collection also should be limited to the data necessary for the stated purpose of collection. The request for consent should include notice of the purpose of the data collection.

Limiting the use of the data is also an important aspect of the OECD principles. Use should be limited to the stated purposes for the collection. Any additional uses should only be made with the consent of the data subject. Data should be protected from unauthorized use or access.

Another key principle is individual control and participation. This principle ensures that individuals have the right to inspect the data a third party maintains on him or her. Individuals also should have the right to challenge any data that may be incorrect for the opportunity to have the data erased or amended.

Although the OECD principles are not binding on nations supporting them, they formed the basis for laws implementing strong privacy

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<sup>13</sup> See generally Organisation for Economic Co-operation and Development, <http://www.oecd.org/> (last visited October 23, 2009).

<sup>14</sup> OECD, Organization for Economic Co-Operation and Development, Guidelines on the Protection of Privacy and Transborder Flows of Personal Data (2004), available at [http://www.oecd.org/document/18/0,3343,en\\_2649\\_34255\\_1815186\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/18/0,3343,en_2649_34255_1815186_1_1_1_1,00.html).

<sup>15</sup> *Id.*

protections.<sup>16</sup> In 1995, the European Union adopted the Data Privacy Protection Directive that provided specific guidance to member nations on minimum standards for the implementation of the OECD principles.<sup>17</sup>

In 2003, the OECD issued a report on privacy online, in which it provided guidance for applying the data privacy protection principles to the online environment.<sup>18</sup> For example, the OECD suggested that using the OECD's Privacy Policy generator would create more consistency in website privacy policies across companies and countries.<sup>19</sup> The report also advocated the development and use of alternative dispute resolution methods for consumers and businesses.<sup>20</sup> Consumer education was an important goal raised by this report – education about privacy concerns online, privacy policies, and Privacy Enhancing Technologies (PETs).<sup>21</sup> To promote these goals – and the OECD Privacy Principles – the report recommended a hybrid of government-enforced legislation and industry-led, self-regulation as the best solution for the online environment.<sup>22</sup>

## B. Incorporating OECD Principles

Although the U.S. Congress has not formally adopted these guidelines in a comprehensive piece of privacy legislation, it is evident in privacy laws that address particular issues, such as the Electronic Communications Privacy Act, the Gramm-Leach-Bliley Act, and the Fair Credit Reporting Act.<sup>23</sup>

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<sup>16</sup> *CDT's Guide to Online Privacy, Chapter Three: Existing Privacy Protections*, CENTER FOR DEMOCRACY & TECHNOLOGY, Oct. 22, 2009, <http://www.cdt.org/privacy/guide/protect/>.

<sup>17</sup> Council Directive 95/46/EC, 1995 O.J. (L 281) 31.

<sup>18</sup> WORKING PARTY ON INFORMATION SECURITY AND PRIVACY, REPORT ON COMPLIANCE WITH, AND ENFORCEMENT OF, PRIVACY PROTECTIONS ONLINE (OECD 2003), *available at* [http://www.oilis.oecd.org/olis/2002doc.nsf/LinkTo/NT00000B82/\\$FILE/JT00139173.PDF](http://www.oilis.oecd.org/olis/2002doc.nsf/LinkTo/NT00000B82/$FILE/JT00139173.PDF).

<sup>19</sup> *Id.* at 8.

<sup>20</sup> *Id.* at 9-11.

<sup>21</sup> *Id.* at 12-3.

<sup>22</sup> *Id.* at 15.

<sup>23</sup> *A Review of the Fair Information Principles: The Foundation of Privacy Public*

To protect consumers, Congress has passed a series of laws that restrict the use and dissemination of sensitive financial data. The Gramm-Leach-Bliley Act of 1999 (GLBA),<sup>24</sup> for example, requires financial institutions to offer consumers the opportunity to opt-out of sharing “nonpublic personal information” with third parties.<sup>25</sup> The GLBA places other restrictions on financial institutions regarding privacy policies and limits on disclosures. However, the organization collecting the consumer data must be a “financial institution” before these restrictions apply.<sup>26</sup>

The Fair Credit Reporting Act of 1960,<sup>27</sup> similarly provides privacy protection to consumers, but is limited to “consumer reporting agencies.”<sup>28</sup> These agencies must provide consumers with privacy notifications and opportunities to opt-out of disclosures. This law gives consumers the right to inspect their credit reports and challenge any information included in the reports.

Congress also has made efforts to protect consumers’ private information held by communications providers. The FCC has been a primary agency responsible for supporting these efforts.<sup>29</sup> For example,

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*Policy*, THE PRIVACY RIGHTS CLEARINGHOUSE, Feb. 2004,  
<http://www.privacyrights.org/ar/fairinfo.htm>.

<sup>24</sup> 15 U.S.C. §§ 6801-6809 (1999).

<sup>25</sup> 15 U.S.C. § 6802(a) (1999).

<sup>26</sup> “The term “financial institution” means any institution the business of which is engaging in financial activities as described in section 1843(k) of title 12.” 15 U.S.C. § 6809 (3)(A) (1999). Factors to be considered in the determination of if an activity is financial in nature are listed at 12 U.S.C. § 1843(k)(3).

<sup>27</sup> 15 U.S.C. §§ 1681 et. seq. (1970).

<sup>28</sup> “The term “consumer reporting agency” means any person which, for monetary fees, dues, or on a cooperative nonprofit basis, regularly engages in whole or in part in the practice of assembling or evaluating consumer credit information or other information on consumers for the purpose of furnishing consumer reports to third parties, and which uses any means or facility of interstate commerce for the purpose of preparing or furnishing consumer reports.” 15 U.S.C. § 1681a(f) (1999).

<sup>29</sup> See FTC Privacy Initiatives, <http://www.ftc.gov/privacy/> (last visited Oct. 20, 2009). The Federal Trade Commission is the other primary government agency responsible for enforcing consumer privacy protections.

Congress has charged the FCC with regulating telecommunications carriers, telemarketers, and spammers.<sup>30</sup> In 1991, Congress, in an effort to protect consumer information of telephone service subscribers, instructed the FCC to “prescribe regulations to implement methods and procedures for protecting the privacy rights ... in an efficient, effective, and economic manner and without the imposition of any additional charge to telephone subscribers.”<sup>31</sup>

The FCC, in tandem with the FTC, adopted the national Do-Not-Call Registry in 2002.<sup>32</sup> The FCC adopted regulations in 2003 that required telemarketers to conform to the new national registry. Congress granted specific authority to the FTC to assess fees for the implementation and operation of the registry. Additionally, Congress directed the FCC and the FTC to work together to enforce the registry. Since 2003, the Do-Not-Call Registry has been jointly operated by both agencies.<sup>33</sup> Similarly, the FCC has regulated spam advertisements sent directly to consumers on their mobile devices and unsolicited, commercial facsimile communications.<sup>34</sup> However, these regulations focus on the delivery of

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<sup>30</sup> See, e.g., Telephone Consumer Protection Act of 1991, Pub. L. No. 102-243, 105 Stat. 2394 (1991), *codified at* 47 U.S.C. § 227; Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, Pub. L. No. 108-187, 117 Stat. 2699 (2003) *codified at* 15 U.S.C. §§ 7701-7713, 18 U.S.C. § 1037, and 28 U.S.C. § 994.

<sup>31</sup> Telephone Consumer Protection Act of 1991 (TCPA), Pub. L. No. 102-243 (1991), which amended Title II of the Communications Act of 1934, 47 U.S.C. Section § 201 et seq., *amended by* adding a new section, [47 U.S.C. Section 227](#). Telephone Consumer Protection Act of 1991, Pub. L. No. 102 § 243 (1991) (adding 47 U.S.C. § 227).

<sup>32</sup> “The National Do Not Call Registry gives you a choice about whether to receive telemarketing calls at home.” National Do-Not-Call Registry, <http://www.donotcall.gov/> (last visited Jan. 19, 2010). “Telephone numbers placed on the National Do Not Call Registry will remain on it permanently due to the Do-Not-Call Improvement Act of 2007, which became law in February 2008.” *Do Not Call Registrations Permanent and Fees Telemarketers Pay to Access Registry Set*, FTC, April 10, 2008, <http://www.ftc.gov/opa/2008/04/dncfyi.shtm>.

<sup>33</sup> GAO, U.S. Gen. Accounting Office, Telemarketing: Implementation of the National Do-Not-Call Registry (Jan. 2005), *available at* [www.gao.gov/cgi-bin/getrpt?GAO-05-113](http://www.gao.gov/cgi-bin/getrpt?GAO-05-113).

<sup>34</sup> See FCC, IN THE MATTER OF RULES AND REGULATIONS IMPLEMENTING THE TELEPHONE CONSUMER PROTECTION ACT OF 1991, RPT. AND ORDER (June, CG Docket No. 02-278, FCC 03-230 (Sept. 26, 2003).), *available at* [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-230A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-03-230A1.pdf).

communications.

The collection, dissemination, and use of data create the potential harm associated with behavioral advertising. The FCC also has been directly involved with regulating these issues. In 1984, Congress regulated how cable companies could collect and use consumers' personal information. The Cable Communications Policy Act, implemented and enforced by the FCC, requires that cable providers notify customers of the information collected or to be collected by the provider on an annual basis. Further, providers may collect personally identifiable information only with express consent of the consumer or when "necessary to render a cable service or other service provided by the cable operator to the subscriber" or to "detect unauthorized reception of cable communications."<sup>35</sup>

The FCC also has enforced fair information practices against other telecommunication carriers with respect to consumer data. The Telecommunications Act of 1996 requires carriers to protect consumers' personal information, including: proprietary network information, such as the time, duration, and destination of each telephone call; directory information; and aggregate lists of proprietary network information.<sup>36</sup> The FCC required carriers to obtain express consent before disclosing the proprietary network information to third parties.<sup>37</sup> The regulations expressly included Voice over Internet Protocol providers and other IP-based telephony services to respond to a new technology modeling a traditionally regulated medium.<sup>38</sup>

The FCC also has stated that it will use its jurisdiction to ensure open

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<sup>35</sup> 47 U.S.C. § 551(a) (2008). *See also* Video Privacy Protection Act, Pub. L. 100-618 (codified at 18 U.S.C. § 2710 (1988)) (Creating a consumer right to opt-out of the disclosure of their personal information by video rental companies, further cementing Congress's commitment to consumer privacy. Video Privacy Protection Act, Pub. L. No. 100-618, codified at 18 U.S.C. § 2710 (1988).

<sup>36</sup> Telecommunications Act of 1996, 47 U.S.C. § 222 (2008).

<sup>37</sup> In the Matter of Implementation of the Telecommunications Act of 1996: Telecommunication Carriers' Use of Customer Proprietary Network Information and Other Customer Information, 61 Fed. Reg. 26,483 (May 28, 1996).

<sup>38</sup> *Id.*

and neutral access to broadband for consumers.<sup>39</sup> In charging the Commission with the development of a National Broadband Plan, Congress has specifically tasked the FCC with considering the advancement of consumer welfare.<sup>40</sup> The FCC, in a notice of inquiry, identified the tracking of consumers' web behavior as a potential threat to that welfare and to the successful nationwide adoption of broadband access.<sup>41</sup> The agency is currently reviewing comments on possible government regulation of this practice to protect the privacy of broadband subscribers and consumers.

## II ONLINE ADVERTISING PRACTICES RAISE PRIVACY CONCERNS

Online advertising is capturing an increasing market, as opposed to other, more traditional methods, having brought in \$8.1 billion in revenue in 2000, and more than \$20 billion in 2007.<sup>42</sup> The Internet has allowed advertisers to target individual consumers in ways other media cannot support.<sup>43</sup> Website owners, Internet Service Providers (ISPs), and search engine operators can provide data on individual consumers such as geographic location, age, gender, salary, and social interests. This information allows the advertisers to deliver highly customized advertisements. However, such a massive collection of information raises significant privacy concerns. This section discusses online advertising practices and the associated privacy concerns.

### A. Online Advertising and Consumer Profiles

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<sup>39</sup> FCC, Policy Statement, (FCC Aug. 5, 2005), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-05-151A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.pdf).

<sup>40</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001 (k)(2) (D), 123 Stat. 516 (2009).

<sup>41</sup> FCC NOI, *supra* note 1.

<sup>42</sup> David S. Evans, *The Online Advertising Industry: Economics, Evolution, and Privacy*, *Journal of Economic Perspectives* (forthcoming – draft, Apr. 2009), *available at* [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1376607](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1376607).

<sup>43</sup> STAFF REPORT: PUBLIC WORKSHOP ON CONSUMER PRIVACY ON THE GLOBAL INFORMATION INFRASTRUCTURE 34 (Federal Trade Commission 1996) [hereinafter “FTC Privacy Workshop”], *available at* <http://www.ftc.gov/reports/privacy/Privacy1.shtm>.

There are two basic types of online targeting: contextual and behavioral. Contextual advertising is based on instantaneous data from a web page that a consumer is viewing. This data provides an advertisement relevant to the content on that page. Behavioral targeting tracks consumers' online activities to gather information about multiple websites he or she visits. This data is used to deliver advertisements relevant to the individual's predicted interests. Both of these targeting practices hold a large share of the advertising market – more than \$13 billion for 2009.<sup>44</sup>

The majority of those advertising dollars – \$12 billion – will be used for contextual advertising.<sup>45</sup> This method of online targeting is fairly innocuous from a privacy standpoint; it uses real-time information about the website a consumer is visiting to provide a contextually relevant advertisement based on keywords contained in the website.<sup>46</sup> For example, if a consumer reads a story about snowboarding on an online news site on which contextual advertising is hosted, the consumer will see ads for ski resorts or snowboarding equipment. The automated ad provider had searched the story and found snowboard as a key term, which generated the ads relevant to the story's content.

Behavioral advertising raises privacy concerns not at issue with contextual advertising. To engage in behavioral advertising, the ad provider needs information about the consumer – not just information about a web page the consumer loaded. Behavioral advertising uses consumer profiles, which contain data collected over time about a particular user: search terms, websites visited, and online commercial transactions.<sup>47</sup> This information is then used to target advertisements

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<sup>44</sup> Susan Hall, *Experts: Make the (Transparent) Case for Behavioral Advertising*, IT BUSINESS EDGE, July 28, 2009, <http://www.itbusinessedge.com/cm/community/features/articles/blog/experts-make-the-transparent-case-for-behavioral-advertising/?cs=34433>. See also *Behavioral Targeting: Secret Weapon in Display Ads Arsenal*, INTERACTIVE ADVERTISING BUREAU, July 2008, [http://www.iab.net/insights\\_research/530422/1675/368205](http://www.iab.net/insights_research/530422/1675/368205).

<sup>45</sup> Hall, *supra* note 44.

<sup>46</sup> Frederick Marckini, *Contextual Advertising, Part 1 of 2*, CLICKZ, Oct. 6, 2003, <http://www.clickz.com/3087311>.

<sup>47</sup> See Elyse Tager, *A New Breed of Behavioral Targeting*, CLICKZ, Apr. 16, 2008, <http://www.clickz.com/3629139>. See also *A Primer on Behavioral Advertising*, CDT,

based on the consumer, not the page. For example, if a consumer visits Lowes.com and views washers and dryers, that same consumer may see a Maytag advertisement when he visits the Wall Street Journal website to read a story on unemployment rates.

This multi-site approach, which accounts for at least 25 percent of all online campaigns,<sup>48</sup> has been available for five years. In 2004, TACODA Systems unveiled a system of sixty networked websites to provide targeted ads to visitors of those sites.<sup>49</sup> Before TACODA introduced this system, online advertising services were able to track users on individual sites to customize the advertisements users received on each site. The TACODA system expanded this capability by collecting more data on web users as they browsed various sites for news, travel, shopping, and other activities.<sup>50</sup> Now, advertising networks like TACODA link hundreds of retailers and track more than 140 million Internet users.<sup>51</sup>

Ad networks, like TACODA, analyze this web-behavior data to predict individual users' consumer needs and likely purchasing behavior.<sup>52</sup> Ad networks collect information in a variety of ways,

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July 31, 2008, <http://www.cdt.org/policy/primer-behavioral-advertising>.

<sup>48</sup> Rich Karpinski, *Will Using Behavioral Data Lead to Smarter Ad Buys?*, *ADVERTISING AGE*, Apr. 20, 2009, [http://adage.com/adnetworkexchangeguide09/article?article\\_id=136003](http://adage.com/adnetworkexchangeguide09/article?article_id=136003). The use of behavioral targeting may be underestimated as many contextually supplied ads still use tracking data on individual viewers to cap the number of times any individual is exposed to a particular advertisement, or to track whether an individual viewer purchases the product advertised from the advertiser. This tracking requires storing and analyzing data on individual consumers in the same way ad networks collect, store, and analyze consumer data to provide behaviorally targeted advertisements.

<sup>49</sup> Kris Oser, *Tacoda Ties Ads to Surfing Behavior; Network Allows Marketers to Extend Reach and Target Individuals Across 60 Sites*, *ADVERTISING AGE* 44, Nov. 14, 2004, available at [http://adage.com/abstract.php?article\\_id=101172](http://adage.com/abstract.php?article_id=101172) (subscription required).

<sup>50</sup> *Id.*

<sup>51</sup> See Tager, *supra* note 47. See also Acerno: the Add Network, <http://www.acerno.com/theaddnetwork.html> (last visited October 22, 2009).

<sup>52</sup> See, e.g., Tager, *supra* note 47. See also Stephanie Oehlert, *Behavioral Targeting*, *SALES AND MARKETING MANAGEMENT MAGAZINE*, Jan. 20, 2010, [http://www.salesandmarketing.com/msg/content\\_display/publications/e3ia3a7c2e70e62](http://www.salesandmarketing.com/msg/content_display/publications/e3ia3a7c2e70e62)

including direct information from content providers, tracking visits to websites over time, and third-party databases, including off-line data collectors.<sup>53</sup> This information could include simple demographics, financial history, hobbies, and interests.<sup>54</sup> This information is compiled and analyzed for behavior predictions.

For example, ValueClick Media introduced a system in 2008 that uses an automated prediction model to categorize website visitors as belonging to one or more category of consumers such as finance, retail/shopper, or travel/air.<sup>55</sup> This model analyzes the behaviors of more than 130 million Internet visitors each month.<sup>56</sup> Acerno uses a similar database of information and then analyzes the data to find out 1) who customers are and 2) what customers will buy next.<sup>57</sup> This analysis identifies Internet visitors that “look” like an individual company’s best customers to target to those individuals most likely to act on the advertisement.<sup>58</sup>

## B. Benefits of Targeted Advertising

This data profiling provides significant benefits for consumers, advertisers, and online publishers. One benefit for consumers is the reduction of irrelevant and often repeated advertisements.<sup>59</sup> One

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<sup>53</sup> Behavioral Advertising: Industry Practices and Consumer Expectations: Joint Hearing Before the H. Subcomm. on Commerce, Trade, and Consumer Protection and the Subcomm. on Communications, Technology and the Internet, 111th Cong. 2 – 4 (2009) (statement of Edward W. Felton, Professor of Computer Science and Public Affairs, Princeton University).

<sup>54</sup> *Id.*

<sup>55</sup> *See* Tager, *supra* note 47.

<sup>56</sup> *Id.*

<sup>57</sup> *See id.* *See also* Acerno: The Add Network, <http://www.acerno.com/wifnetwork.html> (last visited Jan. 23, 2010).

<sup>58</sup> *Id.*

<sup>59</sup> Federal Trade Commission, Online Profiling: A Report to Congress 8 (June 2000), available at <http://www.ftc.gov/os/2000/06/onlineprofilingreportjune2000.pdf>

commentator said that without this tracking and analysis, our Internet experience “would be like having the same conversation--over and over again.”<sup>60</sup> Consequently, advertisers benefit because they can target consumers who are more likely to act on the delivered advertisements; advertisers’ efforts and money are not wasted on consumers who have no interest in the product or brand.<sup>61</sup>

Additionally, online advertising supports a variety of content that consumers can access free of charge.<sup>62</sup> The advertising revenue from display ads – \$7.6 billion in 2008 – supports staff salaries and infrastructure expenses.<sup>63</sup> Advertising networks provide a more efficient and cost-effective means to acquire advertising revenue, especially for smaller website publishers that do not have the resources to devote to advertising sales.<sup>64</sup>

Advertisers using these services are able to better target their efforts to likely purchasers.<sup>65</sup> This reduces wasted spending aimed at reaching uninterested general audiences. This practice also allows advertisers to analyze consumer response to advertisements and evaluate ad effectiveness. Another economic benefit of online advertising is the flexibility in payment structure; advertisers often pay only for ads that produce a desired result, such as a consumer clicking on the ad or a consumer actually making a purchase on the advertiser’s website.

Although behavioral targeting supports further expansion of online content and provides economic benefits to advertisers, web publishers, [hereinafter “FTC 2000 Report”].

<sup>60</sup> Michael Learmonth, *Tracking Makes Life Easier For Consumers; Scrutiny is Needed but Truth is Web Would be Insufferable Without It*, *ADVERTISING AGE* 44, July 13, 2009, available at [http://adage.com/abstract.php?article\\_id=137869](http://adage.com/abstract.php?article_id=137869) (subscription required).

<sup>61</sup> FTC 2000 Report, *see supra* note 59, at 9.

<sup>62</sup> NAI, Network Advertising Initiative, Comments submitted to the Federal Trade Commission, Privacy Roundtables (Nov. 6, 2009), available at <http://www.ftc.gov/os/comments/privacyroundtable/544506-00019.pdf>.

<sup>63</sup> *Id.* at 2.

<sup>64</sup> *Id.* at 3-4.

<sup>65</sup> *Id.* at 5-6.

and consumers, this practice requires the collection of consumer information on a scale that raises serious privacy concerns.

### C. Consumer Privacy Protection Concerns

When third parties collect personal information, an individual's privacy interests are implicated. As this personal information is collected, stored, and shared, the control and security of that information is taken away from consumers and entrusted to ad networks and other third parties. Additionally, there is concern that this information will be used to discriminate against consumers with certain online behaviors.

Behavioral advertising networks collect a variety of information about Internet users, including search terms entered, commercial transactions, and websites visited. From this information, ad networks can determine a user's age, income level, whether they have children, and if they live in a city.<sup>66</sup> Data collectors maintain that this information is collected, stored, and analyzed anonymously. However, privacy and consumer advocates argue that this information can be used to identify individuals and should be protected "so long as it can be linked to a particular computer."<sup>67</sup>

American consumers have expressed unease with customized advertisements that are the result of tracking online behavior.<sup>68</sup>

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<sup>66</sup> Stephanie Clifford, *Ads Follow Web Users, and Get More Personal*, N.Y. TIMES, July 30, 2009, available at <http://www.nytimes.com/2009/07/31/business/media/31privacy.html?partner=rss&emc=rss&pagewanted=all>.

<sup>67</sup> Privacy Implications of Online Advertising, Hearing Before the Senate Committee on Commerce, Science, and Transportation, 110<sup>th</sup> Cong. 4 (Statement of Leslie Harris, President and CEO, Center for Democracy & Technology) (July 9<sup>th</sup>, 2008), available at [http://commerce.senate.gov/public/\\_files/LeslieHarrisCDTOnlinePrivacyTestimony.pdf](http://commerce.senate.gov/public/_files/LeslieHarrisCDTOnlinePrivacyTestimony.pdf). See also John Eggerton, Consumer Groups Want Constraints on Online Behavioral Advertising, BROADCASTING & CABLE, Sept. 1, 2009, [http://www.broadcastingcable.com/article/339171-Consumer\\_Groups\\_Want\\_Constraints\\_on\\_Online\\_Behavioral\\_Advertising.php](http://www.broadcastingcable.com/article/339171-Consumer_Groups_Want_Constraints_on_Online_Behavioral_Advertising.php).

<sup>68</sup> See Joseph Turow, Jennifer King, Chris Jay Hoofnagle, Amy Bleakley & Michael Hennessy, *Contrary to What Marketers Say, Americans Reject Tailored Advertising and Three Activities That Enable It* (2009), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1478214](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1478214). See Also Stephanie Clifford, *Many See Privacy on Web as Big Issue, Survey Says*, N.Y. TIMES, Mar. 15,

Researchers at the Annenberg Public Policy Center, the Annenberg School for Communication, and the Berkeley Center for Law & Technology conducted an independent survey of one thousand Internet users.<sup>69</sup> The researchers reported that 66 percent of respondents did not want advertisements tailored for them at all.<sup>70</sup> When respondents were told the targeted ads were based on tracking users' behavior over multiple websites, the number increased to 84 percent.<sup>71</sup> The promise of anonymity did not lower concern; 87 percent would either "definitely not allow it" or "probably not allow it."<sup>72</sup> The study further reported that 53 percent of Americans believe businesses and laws protect their information.<sup>73</sup> More than 60 percent of respondents believed that the presence of a privacy policy on a website meant that the site cannot share information about its users without their permission.<sup>74</sup>

There is additional concern over the use of "sensitive data" such as health information and financial records.<sup>75</sup> Ad networks collect information from online searches dealing with health issues, such as "abortion" and "AIDS" as well as content viewed on health-related sites. This is an increasing concern, as a majority of Americans turn to the Internet for health information.<sup>76</sup> The collection of this sensitive

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2009, available at

[http://www.nytimes.com/2009/03/16/technology/internet/16privacy.html?  
\\_r=1&partner=rss&emc=rss&pagewanted=all](http://www.nytimes.com/2009/03/16/technology/internet/16privacy.html?_r=1&partner=rss&emc=rss&pagewanted=all).

<sup>69</sup> *Id.*

<sup>70</sup> *Id.* at 14.

<sup>71</sup> *Id.*

<sup>72</sup> *Id.* at 16.

<sup>73</sup> *Id.* at 19; *See also* Clifford, *supra* note 68 (Survey by TRUSTe revealed that 75 percent of respondents believed that more regulation of the Internet was necessary to protect "naïve users.").

<sup>74</sup> Turrow et al., *supra* note 68 at 21.

<sup>75</sup> Ryan Singel, *Internet Ad Industry Begg for Regulation*, WIREd, July 8, 2009, <http://www.wired.com/epicenter/2009/07/internet-ad-industry-begs-for-regulation/>.

<sup>76</sup> PEW INTERNET & AMERICAN LIFE PROJECT, *Press Release: 61% of American Adults Look Online For Health Information* (June 11, 2009) available at <http://www.pewinternet.org/Press-Releases/2009/The-Social-Life-of-Health->

information has led to concerns about price discrimination and inequality in service. For example, when a firm in the United Kingdom proposed tracking users to provide targeted advertisements, the creator of the Web, Sir Tim Berners-Lee, was concerned about the disparate impact on some consumers.

I want to know if I look up a whole lot of books about some form of cancer that that's not going to get to my insurance company and I'm going to find my insurance premium is going to go up by 5% because they've figured I'm looking at those books.<sup>77</sup>

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Information.aspx.

<sup>77</sup> Rory Cellan-Jones, *Web Creator Rejects Net Tracking*, BBC News, Mar. 17, 2008 (quoting Tim Berners-Lee), <http://news.bbc.co.uk/2/hi/7299875.stm>.

### III INDUSTRY SELF-REGULATION

The advertising industry has continuously made efforts at self-regulation for nearly a decade. In 2000, a group of online advertising networks announced the formation of the Network Advertising Initiative (NAI) at a FTC workshop.<sup>78</sup> The NAI is a cooperative of online marketing service providers including, among others, Burst Media, Collaborative Media, Google, TACODA, and 24/7 Real Media.<sup>79</sup> The Federal Trade Commission has supported these efforts at self-regulation, offering some guidance to the industry groups through workshops and guiding principles.<sup>80</sup>

The NAI was the primary industry organization leading the efforts for self-regulation and has released guiding principles for member network advertising companies to follow.<sup>81</sup> In 2000, the NAI issued its first set of self-regulatory principles for online networks to abide by when engaging in online profiling of consumers. However, critics noted that these principles were vague and did not adequately address consumer

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<sup>78</sup> FTC 2000 Report, *supra* note 59 at 22.

<sup>79</sup> *Id.*; See also NETWORK ADVERTISING INITIATIVE, Participating Networks, <http://www.networkadvertising.org/participating/> (last visited Sept. 1, 2009).

<sup>80</sup> See e.g., FTC Privacy Workshop, *supra* note 43; Protecting Consumers in the Next Tech-ade (Nov. 7, 2006), available at [http://www.ftc.gov/bcp/workshops/techade/pdfs/transcript\\_061107.pdf](http://www.ftc.gov/bcp/workshops/techade/pdfs/transcript_061107.pdf); Federal Trade Commission, Staff Report: Online Behavioral Advertising: Moving the Discussion Forward to Possible Self-Regulatory Principles (Dec. 20, 2007), available at <http://www.ftc.gov/opa/2007/12/principles.shtm> [hereinafter “FTC Proposed Principles”]; Staff Report: *Self-Regulatory Principles for Online Behavioral Advertising, Behavioral Advertising: Tracking, Targeting, & Technology*, at 13 – 14 (Federal Trade Commission Feb. 2009), available at <http://www.ftc.gov/os/2009/02/P085400behavadreport.pdf> [hereinafter “FTC 2009 Principles”].

<sup>81</sup> EPIC, National NETWORK ADVERTISING INITIATIVE: Principles not Privacy, July 2000, [http://epic.org/privacy/internet/NAI\\_analysis.html](http://epic.org/privacy/internet/NAI_analysis.html). See also NAI, Self-Regulatory Principles for Online Preference Marketing by Network Advertisers (2000), available at <http://www.ftc.gov/os/2000/07/NAI%207-10%20Final.pdf>, amended by NETWORK ADVERTISING INITIATIVE, Self-Regulatory Code of Conduct (2008), available at [http://www.networkadvertising.org/networks/2008%20NAI%20Principles\\_final%20for%20Website.pdf](http://www.networkadvertising.org/networks/2008%20NAI%20Principles_final%20for%20Website.pdf).

concerns. For example, the Electronic Privacy Information Center (EPIC)<sup>82</sup> criticized the NAI for creating a default opt-out privacy protection, which requires users to actively opt-out of data collection.<sup>83</sup> EPIC suggested that a more protective guideline would be an opt-in process, by which users would expressly grant ad networks permission to collect information on their web browsing habits.<sup>84</sup>

The NAI Principles, the only formalized self-regulatory mechanism, continued to draw criticism from various organizations during the FTC's decade-long investigation of online advertising practices.<sup>85</sup> In 2007, the FTC proposed guiding principles for the use of behavioral targeting online.<sup>86</sup> These were finalized in 2009. Two major efforts have been undertaken by the industry to respond to these principles. This section will detail the FTC principles, the NAI Code of Conduct, and the Self-Regulatory Principles for Online Behavioral Advertising developed by a cooperative of professional advertising associations.

#### A. The Federal Trade Commission's Self-Regulatory Principles

The FTC has been monitoring the use of online tracking since the mid-1990s.<sup>87</sup> It recognized that increased capabilities and use of e-commerce raised serious concerns for consumers including loss of privacy, fraud, and deceptive marketing. In an 1996 Report and Workshop, the FTC cited a 1994 Survey that reported a majority of individuals would be "concerned if an interactive service to which they subscribed engaged in subscriber profiling, i.e., the creation of individual profiles based upon subscribers' usage and purchasing patterns, in order

<sup>82</sup>

"EPIC is a public interest research center in Washington, D.C. It was established in 1994 to focus public attention on emerging civil liberties issues and to protect privacy, the First Amendment, and constitutional values." About EPIC, <http://epic.org/epic/about.html> (last visited Jan. 23, 2010).

<sup>83</sup>

*See EPIC, National Advertising Initiative: Principles not Privacy*, July 2000, available at [http://epic.org/privacy/internet/NAI\\_analysis.html](http://epic.org/privacy/internet/NAI_analysis.html) [hereinafter "EPIC NAI"].

<sup>84</sup> *Id.*

<sup>85</sup>

FTC 2009 Principles, *see supra* note 80 at 13-4.

<sup>86</sup>

FTC Proposed Principles, *see supra* note 80.

<sup>87</sup>

FTC Privacy Workshop, *supra* note 43.

to advertise to subscribers.”<sup>88</sup> The FTC staff recommended that the Commission continue to monitor issues of online privacy, but concluded that self-regulation and technological solutions may be sufficient to protect consumers’ privacy in the marketplace.<sup>89</sup>

Since this first workshop on consumer online privacy issues, the FTC has continued to issue findings surrounding e-commerce and online advertising. Throughout this process, the FTC has encouraged the industry to issue self-regulation guidelines to ensure privacy protections for consumers. However, in 2000, the FTC reported to Congress on the issue of online profiling and recommended that Congress legislate this practice to mandate compliance with established fair information practices.<sup>90</sup> Although the FTC praised industry efforts at self-regulation, it noted that not all advertisers and website owners were allied with the organizations issuing these guidelines. Proposed federal legislation would mandate compliance for all websites and advertising networks and provide an agency with the authority to enforce privacy protections.<sup>91</sup>

Congress failed to pass legislation following the FTC’s recommendations in 2000. Online advertising continued to be governed primarily by self-regulatory guidelines issued by the NAI. However, the FTC continues to note the importance of monitoring online practices and investigating instances of possible deception and unfair practices associated with commercial activities on the Internet.<sup>92</sup>

The FTC featured behavioral targeting at the 2006 Tech-Ade hearings.<sup>93</sup> Industry experts described how new technologies, such as

<sup>88</sup> *Id.*

<sup>89</sup>

*Id.*

<sup>90</sup> FTC 2000 Report, *supra* note 59.

<sup>91</sup> Federal Trade Commission, Online Profiling: A Report to Congress Part 2 Recommendations (July 2000), *available at* <http://www.ftc.gov/os/2000/07/onlineprofiling.htm> [hereinafter “FTC 2000 Recommendations”].

<sup>92</sup> FTC 2009 Principles, *supra* note 80.

<sup>93</sup> “On November 6-8, 2006, the FTC [brought] together experts from the business, government, and technology sectors, consumer advocates, academicians, and law enforcement officials to explore the ways in which convergence and the globalization of

behavioral targeting networks, were developing to allow advertisers to provide consumers with more relevant advertisements.<sup>94</sup> Marcia Hofmann of the Electronic Frontier Foundation questioned whether industry self-regulation would be enough to protect consumer interests. Hofmann noted that it was in the advertisers' interests to create increasingly detailed consumer profiles but that there were few market forces that would promote consumer privacy.<sup>95</sup>

In the months following the Tech-Ade hearings, the FTC worked to gather more information on behavioral targeting. Objections to this practice increased, and the FTC accelerated its investigations in 2007 when Google, the leading online search engine, announced plans to acquire Double-Click, a leader in online marketing technology.<sup>96</sup> Commentators argued that allowing such a merger would result in the "creation of 'super-profiles,' which will make up the world's single largest repository of both personally and non-personally identifiable information."<sup>97</sup> However, after an investigation into the proposed merger, the FTC allowed the acquisition to continue without imposing any privacy regulations on Google's activities.<sup>98</sup>

Since the Google/Double-Click merger, online profiling has continued to be a standard, yet controversial practice.<sup>99</sup> In response to

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commerce impact consumer protection. The hearings [provided] an opportunity to examine changes that have occurred in marketing and technology over the past decade, and to garner experts' views on coming challenges and opportunities for consumers, businesses, and governmental bodies." Protecting Consumers in the Next Tech-Ade, <http://www.ftc.gov/bcp/workshops/techade/what.html> (last visited Jan. 23, 2010). See also *Id.* at 8; Protecting Consumers in the Next Tech-ade, *supra* note 80.

<sup>94</sup> Protecting Consumers in the Next Tech-ade, *supra* note 80 at 54-9.

<sup>95</sup> *Id.* at 76-7.

<sup>96</sup> FTC 2009 Principles, *supra* note 80 at 9.

<sup>97</sup> Supplemental Materials in Support of Pending Complaint and Request for Injunction, Request for Investigation and for Other Relief, In re: Google, Inc. and Doubleclick, Inc., F.T.C. No. 071-0170, available at [http://epic.org/privacy/ftc/google/supp\\_060607.pdf](http://epic.org/privacy/ftc/google/supp_060607.pdf).

<sup>98</sup>

Statement Concerning Google/DoubleClick, No. 071-0170 (2008), available at <http://ftc.gov/os/caselist/0710170/071220statement.pdf>.

<sup>99</sup> See, e.g., *FTC Clears Google-DoubleClick Merger*, PRIVACY REVOLT, Dec. 21, 2007,

continuing concerns, the FTC released guiding principles for the self-regulation of online behavioral advertising in February 2009.<sup>100</sup> In this statement, the FTC warned the advertising industry that if self-regulation efforts were not effective, the Commission would take steps to regulate online advertising.<sup>101</sup>

In the FTC Principles, behavioral advertising is defined as “the tracking of a consumer’s online activities over time – including the searches the consumer has conducted, the web pages visited, and the content viewed – in order to deliver advertising targeted to the individual consumer’s interests.”<sup>102</sup> This definition specifically excludes contextual advertising. The guiding principles focused on transparency, data security, changes in privacy policies, and sensitive data. Websites through which data is collected should have a clear, concise, and prominent statement alerting visitors that the information is being collected for advertising purposes and that visitors may opt-out of this data collection. Website operators are directed to include a user-friendly method to opt-out. The FTC also emphasized consent whenever a company changes its privacy after data collection, and before gathering “sensitive data,” such as medical information, for advertising purposes.

Additionally, holders of consumer data should develop and use security protocols to protect the data. The FTC also recommends that companies place limits on the retention of consumer data; it should only be stored “as long as is necessary to fulfill a legitimate business or law enforcement need.”<sup>103</sup>

## B. NAI Code of Conduct

Following the release of a draft of the FTC’s Proposed Principles for Behavioral Advertising,<sup>104</sup> the NAI revised its principles and issued the

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<http://consumercal.blogspot.com/2007/12/ftc-clears-google-doubleclick-merger.html>.

<sup>100</sup>

FTC 2009 Principles, *supra* note 80.

<sup>101</sup> *Id.* at 47.

<sup>102</sup> *Id.* at 46.

<sup>103</sup> *Id.* at 47.

<sup>104</sup> FTC Proposed Principles, *supra* note 80.

Self-Regulatory Code of Conduct.<sup>105</sup> The 2008 Code of Conduct requires all NAI members to adhere to ten key principles, including notice, consumer choice, limitation on the use of information, consumer access to the information, data reliability, data security, and data retention. Critics have said that these principles do not go far enough in protecting consumer privacy. The Center for Democracy and Technology (CDT) specifically criticized the NAI's substandard notice requirements, noting that burying these requirements in a privacy policy is not the most effect method of notifying consumers about data collection practices.<sup>106</sup> Additionally, the CDT expressed concern that the NAI's approved opt-out methods were not user friendly enough to be sufficient protections.<sup>107</sup>

The Code of Conduct incorporates many of the OECD principles.<sup>108</sup> For example, the Code of Conduct requires that members of the NAI ensure that consumers are presented with a clear description of the types of data that will be collected, how that data will be used or transferred to third parties, and if that data will be merged with personally identifying information (PII).<sup>109</sup> Notice must also be provided if privacy policies change.<sup>110</sup> Additionally, the Code of Conduct requires "reasonable security" for all data collected.<sup>111</sup> The Code of Conduct does provide guidance and minimum standards for consumers to opt-out, in most instances, or opt-in, as to sensitive information or, after changes in policy, of data collection and use.<sup>112</sup> Consumers are also provided the

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<sup>105</sup> NETWORK ADVERTISING INITIATIVE, Self-Regulatory Code of Conduct (2008), *available at* [http://www.networkadvertising.org/networks/2008%20NAI%20Principles\\_final%20for%20Website.pdf](http://www.networkadvertising.org/networks/2008%20NAI%20Principles_final%20for%20Website.pdf) [hereinafter "Code of Conduct"].

<sup>106</sup> CENTER FOR DEMOCRACY & TECHNOLOGY, Response to the 2008 NAI Principles: The Network Advertising Initiative's Self Regulatory Code of Conduct for Online Behavioral Advertising (Dec. 16, 2008), *available at* [http://www.cdt.org/privacy/20081216\\_NAIresponse.pdf](http://www.cdt.org/privacy/20081216_NAIresponse.pdf).

<sup>107</sup> *Id.*  
<sup>108</sup>

*See supra* text accompanying notes 13-18.

<sup>109</sup> Code of Conduct, *supra* note 105 at 7. This addresses OECD Principle 3: Purpose Specification.  
<sup>110</sup>

*Id.* at 9.

<sup>111</sup> *Id.* at 10. This addresses OECD Principle 5: Security Safeguards.

<sup>112</sup>

right to inspect any PII that a NAI member holds.<sup>113</sup> The NAI members must “make reasonable efforts to ensure that they are obtaining data . . . from reliable sources.”<sup>114</sup>

The Code of Conduct successfully addresses the accountability principle by setting out a compliance process. The NAI will review a company’s compliance with the Code when 1) it is a new company applying for membership; 2) once annually for all member companies; and 3) when needed in response to a credible, unresolved consumer complaint.<sup>115</sup> The NAI will post an annual compliance review relating to all consumer complaints and any NAI enforcement actions.<sup>116</sup> The Code of Conduct does not specify the procedures for the compliance reviews, but suggests that penalties could include referral to the FTC.<sup>117</sup>

The Code of Conduct does fall short of the OECD principles in several facets. First, it fails to limit data collection in any meaningful way, a key principle of the OECD guidelines.<sup>118</sup> Additionally, although the Code does not adequately address data quality, it does require companies to use “reliable sources” and it provides consumers the right to access any PII held about them. However, there is no such right for non-PII. Nor is there a specified process for challenging or verifying the accuracy of the stored information. Although the Code references consumer complaints in the accountability section, there is no specific right of the consumer to have information erased or amended.<sup>119</sup>

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*Id.* at 8. This partially addresses OECD Principle 7: Individual Participation.

<sup>113</sup>

*Id.* at 9. This partially addresses OECD Principle 7: Individual Participation.

<sup>114</sup> *Id.* at 10. This partially addresses OECD Principle 2: Data Quality.

<sup>115</sup> *Id.* at 11.

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> OECD, *supra* note 14. “There should be limits to the collection of personal data and any such data should be obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject.” *Id.* at para 7.

<sup>119</sup> *Id.* at paras 8, 13.

### C. Professional Cooperative Self-Regulatory Principles

Another joint effort has been made by several advertising industry organizations to set industry principles for online advertising. The American Association of Advertising Agencies, the Association of National Advertisers, the Better Business Bureau, the Direct Marketing Association, and the Interactive Advertising Bureau (collectively the Coop) worked to respond to the FTC Proposed Principles and accompanying report. The Self-Regulatory Principles for Online Behavioral Advertising, published by the Coop in July 2009, outlines seven principles: education, transparency, consumer control, data security, material changes, sensitive data, and accountability.<sup>120</sup>

These principles address several of the OECD principles, including limiting the collection of data. The Coop principles prohibit the collection and use of financial account numbers, Social Security Numbers, pharmaceutical prescriptions, and medical records, without consent.<sup>121</sup> The principles also prohibit the collection of “personal information” from or the targeted advertising to children under the age of 13, as required the by the Children’s Online Privacy Protection Act (COPPA).<sup>122</sup>

The Coop Principles also require service providers, web site publishers, and third-party advertisers to provide “clear, meaningful, and prominent notice on their own Web sites” that details what types of data are collected for behavioral advertising and what that data will be used for, including whether the data will be transferred to other entities for behavioral advertising.<sup>123</sup> This notice must point consumers to a mechanism that allows them to choose if information is collected, transferred, or used for behavioral advertising.

Additionally, the Coop Principles require “enhanced” notice by third-party advertisers. This requires advertisers to include a link to their privacy notice on the Web page where the data is collected, including in

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<sup>120</sup> Coop Principles, *supra* note 4.

<sup>121</sup> *Id.* at 16-7.

<sup>122</sup>

*Id.*

<sup>123</sup>

*Id.* at 12.

or around the third party's advertisement.<sup>124</sup> A third-party may meet the enhanced notice requirement by listing itself on an industry Web site providing consumer options for controlling data collection and use.<sup>125</sup>

The Coop Principles place stronger restrictions on Service Providers regarding consumer control. "Service Providers" are defined as entities that provide Internet access, an Internet toolbar, a browser, or "comparable desktop application or client software."<sup>126</sup> When a Service Provider collects and uses consumer data for behavioral advertising, it must obtain consumer consent. The Coop's explanation of this indicates that Service Providers must obtain affirmative consent and continue to provide opportunities for customers to withdraw that consent.

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<sup>124</sup>

*Id.* at 13.

<sup>125</sup>

*Id.*

<sup>126</sup> *Id.* at 11.

Recognizing the central role they play, this Principle holds Service Providers to a high standard by requiring that customers take action in response to a clear, meaningful, and prominent notice regarding their Service Provider's collection and use of Web surfing data for Online Behavioral Advertising purposes. It prohibits Service Providers from the collection of data through such service and use of such data . . . absent their customers' Consent for such purposes.<sup>127</sup>

Although there are strong protections in the Coop Principles, there are areas of concern. These principles, while prohibiting the collection and use of financial account numbers, Social Security numbers, and medical records, ignore the vast amount of sensitive data collected through health-related search terms and website visits. The Coop Principles also fail to address data quality or accuracy. There are no consumer rights to inspect or verify the stored information.

#### D. Additional Industry Solutions

Individual companies have proposed solutions to concerns raised by privacy advocates. For example, Phorm, an online advertising network publicly traded in the UK, proposed that any ISP partnering with Phorm for data collection or online advertising would provide users with notification and clear opt-out procedures.<sup>128</sup> The UK government had approved implementation of Phorm's tracking system only if users gave their consent and Phorm made it easy for users to opt out.<sup>129</sup> Phorm proposed that once its system was deployed users would see a web-entry

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<sup>127</sup> *Id.* at 36.

<sup>128</sup> Darren Waters, *Ad System 'Will Protect Privacy,'* BBC NEWS, Mar. 6, 2008, <http://news.bbc.co.uk/2/hi/technology/7280791.stm>.

<sup>129</sup> Darren Waters, *EC starts legal action over Phorm,* BBC NEWS, Apr. 14, 2009, available at <http://news.bbc.co.uk/2/hi/technology/7998009.stm>.

page the first time they signed online after deployment.<sup>130</sup> The full-page display would include a notification of what information will be collected and how that information will be used. The page would also provide an opt-out tool for users. Additionally, each page the user browses would contain a banner ad telling users that Phorm's tracking program was on and collecting data.<sup>131</sup> The banner ads would also have an opt-out tool for users to access.<sup>132</sup> However, the European Commission questioned whether these practices would equate to sufficient consent.<sup>133</sup>

European Commission's Consumer Affairs Commissioner Maglena Kuneva, in a keynote address at a European Union roundtable event in Brussels, said that current protections for online users were not sufficient.

Currently, consumers have little awareness of what data is being collected, how and when it is being collected and what it is used for. And they are also not able to control this process. The current opt-out systems are partial, sometimes nowhere to be found, they are difficult or cumbersome and most of all, they are unstable. Avoiding tracking is currently technically difficult if not impossible.<sup>134</sup>

Google and Yahoo! have both set up consumer controls for their respective behavioral advertising services.<sup>135</sup> Google's Ad Preferences

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<sup>130</sup> Waters, *supra* note 128.

<sup>131</sup> *Id.*

<sup>132</sup> *Id.*

<sup>133</sup> Waters, *supra* note 129.

<sup>134</sup> Jack Marshall, *E.U. Hints Strongly at Tighter Regulation of Online Data Collection*, CLICKZ, Apr. 2, 2009, <http://www.clickz.com/3633257>.

<sup>135</sup> Google, Ads Preferences Manager, [http://info.yahoo.com/privacy/us/yahoo/opt\\_out/targeting/details.html](http://info.yahoo.com/privacy/us/yahoo/opt_out/targeting/details.html). Yahoo, Ad Interest Manager, [http://info.yahoo.com/privacy/us/yahoo/opt\\_out/targeting/details.html](http://info.yahoo.com/privacy/us/yahoo/opt_out/targeting/details.html); *See also*

Manager provides consumers with explanations as to why they are receiving certain types of advertisements.<sup>136</sup> The consumer then has the option to control the categories of advertisements he or she receives, such as business, entertainment, investing, and current events.<sup>137</sup> Google also provides on this page the opportunity to opt-out of cookie-based tracking.<sup>138</sup> Yahoo's Ad Interest Manager works in a similar way.<sup>139</sup>

These preference manager tools provide consumers with some control over whether information is collected and how it is used. However, they do not allow consumers to see the total online profile created by Google or Yahoo!. Consumers see the end result – that, based on tracking data, Google has decided if he or she is interested in Business News or Entertainment-Movies. The tool does not allow a consumer to inspect the underlying data used for that analysis for accuracy, or the opportunity to challenge the accuracy of that information.

#### IV INCREASED FEDERAL EFFORTS AND THE NATIONAL BROADBAND PLAN

Immediately following the release of the FTC Self-Regulatory Principles, Rep. Rick Boucher stated that self-regulation “is not sufficient.”<sup>140</sup> Rep. Boucher said that national privacy protections are “fundamental” to the expansion of broadband technologies.<sup>141</sup> He has

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Rebecca Lieb, *Google Raises the Behavioral Bar*, CLICKZ, Mar. 13, 2009, <http://www.clickz.com/3633076>; Joelle Tessler, *Yahoo Launches Online Consumer-Privacy Tool*, ENTERPRISE SECURITY TODAY, Dec. 9, 2009, [http://www.enterprise-security-today.com/news/Yahoo-Debuts-Consumer-Privacy-Tool/story.xhtml?story\\_id=033002FCYKH3](http://www.enterprise-security-today.com/news/Yahoo-Debuts-Consumer-Privacy-Tool/story.xhtml?story_id=033002FCYKH3).

<sup>136</sup> See Google Ads Preferences Manager, *supra* note 135.

<sup>137</sup> See *id.*

<sup>138</sup> See *id.*

<sup>139</sup> See Yahoo Ad Interest Manager, *supra* note 135.

<sup>140</sup> Emily Steel, *Rep. Boucher Calls for Internet Ad Regulation*, WSJ.COM, Feb. 13, 2009, <http://blogs.wsj.com/digits/2009/02/13/rep-boucher-calls-for-internet-ad-regulation/>.

<sup>141</sup> See *id.*

since led the efforts in Congress for hearings and legislation on this issue. The House Committee on Energy and Commerce Subcommittees on Communications, Technology and the Internet and on Commerce, Trade, and Consumer Protection held a joint hearing in June 2009 discussing the practice and privacy implications of behavioral targeting.<sup>142</sup>

Several members of Congress have asked for input on a bill to protect online privacy.<sup>143</sup> Although hearings have been held on the issues of online privacy and behavioral advertising, no bill had been introduced at the time of this writing. Rep. Boucher has reported that he is drafting legislation to address these issues.<sup>144</sup>

The FTC has supported industry self regulation, although statements from Chairman Jon Leibowitz and David Vladeck, the head of the FTC Bureau of Consumer Protection, signal a more aggressive, regulatory approach.<sup>145</sup> The FTC held the first of three roundtable events on Internet privacy issues, including behavioral targeting, on Dec. 7, 2009, to further explore these issues.<sup>146</sup>

During the development of the National Broadband Plan, the FCC had an opportunity to address this issue as part of a comprehensive

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<sup>142</sup> 155 CONG. REC. D718 (daily ed. June 18, 2009) (hearing before the H. Subcommittee on Commerce, Trade and Consumer Protection and the H. Subcommittee on Communications, Technology and the Internet: Behavioral Advertising: Industry Practices and Consumers' Expectations).

<sup>143</sup> John Eggerton, *Broadcasting & Cable*, Sept. 1, 2009, [http://www.broadcastingcable.com/article/339171-Consumer\\_Groups\\_Want\\_Constraints\\_on\\_Online\\_Behavioral\\_Advertising.php](http://www.broadcastingcable.com/article/339171-Consumer_Groups_Want_Constraints_on_Online_Behavioral_Advertising.php), *BROADCASTING & CABLE*, Sept. 1, 2009, available at [http://www.broadcastingcable.com/article/339171-Consumer\\_Groups\\_Want\\_Constraints\\_on\\_Online\\_Behavioral\\_Advertising.php](http://www.broadcastingcable.com/article/339171-Consumer_Groups_Want_Constraints_on_Online_Behavioral_Advertising.php).

<sup>144</sup> Rick Boucher, *Behavioral Advertising: The Need for Privacy Protection*, Sept. 23, 2009, [http://www.boucher.house.gov/index.php?option=com\\_content&task=view&id=1833&Itemid=38&layout=default&view=article&date=2010-01-01](http://www.boucher.house.gov/index.php?option=com_content&task=view&id=1833&Itemid=38&layout=default&view=article&date=2010-01-01).

<sup>145</sup> See, e.g., Douglas MacMillan, *The FTC Takes on Targeted Web Ads*, *BUSINESSWEEK*, Aug. 2, 2009; Stephanie Clifford, *Fresh Views at Agency Overseeing Online Ads*, *N.Y. TIMES*, Aug. 5, 2009.

<sup>146</sup> Federal Trade Commission, *Exploring Privacy: A Roundtable Series*, <http://www.ftc.gov/bcp/workshops/privacyroundtables/> (last visited Dec. 9, 2009).

protection plan for online consumers. Congress has charged the FCC with developing a National Broadband Plan for “use of broadband infrastructure and services in advancing consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.”<sup>147</sup> In promotion of this effort, the FCC issued the Notice of Inquiry in which the Commission has asked for input on each of those goals, as well as the affordability, efficacy and efficiency, and status of broadband deployment.<sup>148</sup>

Consumer privacy is an issue that the Commission raised in several areas of the NOI. In one instance, the FCC specifically noted the concerns that have been raised regarding behavioral advertising and other web tracking practices. The FTC submitted comments to the FCC in response to the NOI.<sup>149</sup> The FTC emphasized the importance of privacy protections and noted the industry guidelines it had promulgated.<sup>150</sup> The FTC statement urged the FCC to “incorporate sound . . . consumer protection principles as the foundation for the Broadband Plan.”<sup>151</sup>

Consumer advocacy organizations submitted comments that urged the FCC to regulate behavioral advertising. The Electronic Privacy Information Center<sup>152</sup> submitted comments that focused on the need for more effective notice of data collection, citing a Consumer Reports poll that reported 61 percent of Internet users “are confident that what they do online is private and not shared without their permission.”<sup>153</sup> EPIC

<sup>147</sup> American Recovery and Reinvestment Act of 2009, *supra* note 40.

<sup>148</sup> FCC NOI, *supra* note 1.

<sup>149</sup> Federal Trade Commission, FTC, Comments of the FTC, Sept. 4 2009 (In Response to FCC NOI, GN Docket 09-51, April 8, 2009) *available at* <http://www.ftc.gov/os/2009/09/090904fccnbp.pdf>.

<sup>150</sup> *Id.* at 14-5.

<sup>151</sup> *Id.* at 17.

<sup>152</sup> EPIC, *Supra*, note 82.

<sup>153</sup> EPIC, Comments of the Electronic Privacy Information Center at 10, June 6<sup>th</sup> 2009, (In Reponse to FCC NOI, GN Docket 09-51, April 8, 2009) *available at*

argued that because users are unaware their information is collected and shared, traditional opt-out protections supported by industry guidelines are not sufficient. EPIC urged the FCC to “exercise greater oversight of practices in the online advertising” industry.<sup>154</sup>

The Center for Digital Democracy, Privacy Rights Clearinghouse, and U.S. PIRG, collectively commented that FCC intervention is necessary to “alleviate consumer confusion and ensure adequate privacy and security protection of consumer data.”<sup>155</sup> These organizations argued that industry self-regulation has been “totally inadequate” because privacy policies are long and ineffective.<sup>156</sup> The consumer groups cited a 2008 study that reported that “if all American Internet users were to annually read the online privacy policies word-for-word each time they visited a new site” users would spend “33 minutes a day ... approximately 46% of the estimated 72 minutes a day people spend using the Internet.”<sup>157</sup> The consumer groups urged the FCC to “step in” and address broadband privacy issues.<sup>158</sup>

## V

### DISCUSSION AND CONCLUSIONS

Although the advertising industry has responded to calls from consumers and the FTC for more effective self-regulation, some government regulation of data collection and use is needed. The 2003 OECD report on online privacy, stated that a hybrid of government-enforced legislation and industry-led self regulation is the best solution

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[http://epic.org/privacy/pdf/fcc\\_broadband\\_6-8-09.pdf](http://epic.org/privacy/pdf/fcc_broadband_6-8-09.pdf).

<sup>154</sup> *Id.*

<sup>155</sup> CENTER FOR DIGITAL DEMOCRACY, PRIVACY RIGHTS CLEARINGHOUSE, & U.S. PIRG, Comments of the Center For Digital Democracy, et. al. at 6, June 8 2009 (In Response to FCC NOI, GN Docket 09-51, April 8, 2009) *available at* <http://www.democraticmedia.org/files/privacy-fcc-060809.pdf>.

<sup>156</sup>

*Id.* at 1-2.

<sup>157</sup> *Id.* at 11.

<sup>158</sup> *Id.* at 13.

for protecting privacy in the online environment.<sup>159</sup> In the absence of comprehensive privacy legislation, the FCC should take this opportunity to include recommendations for consumer privacy protections in the broadband plan that conform to OECD Guidelines.

Protections should provide specific guidance to entities that collect data from online consumers. These should include prescribed methods for effective notice to consumers, specific limitations on data retention, and an effective means for consumers to control what, if any, data is collected.

Policies should place reasonable limits on the personal data collected. Most data aggregators currently store and analyze this data anonymously. Federal policy should mandate this as a continued practice. However, it should also restrict the collection of sensitive data, including medical and financial information. Collection also should be limited to data collected with the consent of the user. Traditional notice and consent schemes have not been effective on the Internet. Privacy policies that comply with current industry standards are difficult to understand, and often difficult to find. David Vladeck, head of the Bureau of Consumer Protection at the FTC, doesn't "believe that most consumers either read them, or if they read them, really understand it."<sup>160</sup> The FCC should work with the FTC, industry representatives, consumer and privacy advocates to develop a framework for more practicable notification schemes to ensure consumers are fully informed.

Another key concern is the opt-out policy. Privacy advocates have argued that opt-in schemes are the only adequate approach to protecting consumer privacy. Industry representatives argue that this will disrupt the business model of online communications. One problem with privacy policies and opt-out tools is that they are diversified across sites. Some commentators have suggested that the FTC or the FCC institute a Do-Not-Track List, operating similarly to the Do-Not-Call Registry for telemarketing. In 2007, the Center for Democracy and Technology and other consumer and privacy groups wrote in a letter to the FTC that creating and maintaining this list would allow consumers to effectively

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<sup>159</sup> OECD, *Report on Compliance With, and Enforcement of, Privacy Protection Online*, *supra* note 18.

<sup>160</sup> Clifford, *supra* note 68.

block in one action the behavioral tracking activities of advertisers.<sup>161</sup> Another solution may be to make the Internet Service Providers that participate in ad networks responsible for this. This was the model proposed by Phorm in the United Kingdom that privacy advocates said would provide users with an unavoidable notice page and easy-access opt-out tools. This approach is also evident in the stringent consent requirement for Service Providers in the Coop Principles. However, the FCC and the FTC should investigate the viability of these options, as well as an opt-in approach, with respect to the goal promoting of competition and innovation.

Another issue that current self-regulatory guidelines, including the FTC's principles, do not address is the inspection and correction of data. Policies should guarantee that consumers have the right to receive copies of data held specifically relating to them, and to have any inaccurate data erased or amended to accurately reflect the individual. Consumers already have this right for data maintained by credit reporting agencies. This inclusion would further the principles of individual participation set out in the OECD guidelines.

The FCC should take this opportunity to recommend legislation that would grant the FTC and the FCC specific authority to implement and enforce these consumer privacy principles. Any such legislation or agency regulation should continue to incorporate self-regulation as a continued resource for privacy protection. While it should not be the only protection available to consumers, self-regulation is an important element. The FCC should continue to consult with the FTC in the development of these regulations to provide consumers and the industry a consistent framework for enforcing privacy rights online.

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<sup>161</sup> Ari Schwartz, et. al., In advance of the FTC Town Hall, "Ehavioral Advertising: Tracking, Targeting, and Technology," to be held November 1-2, 2007 in Washington, D.C., *available at* [http://www.worldprivacyforum.org/pdf/ConsumerProtections\\_FTC\\_ConsensusDoc\\_Final\\_s.pdf](http://www.worldprivacyforum.org/pdf/ConsumerProtections_FTC_ConsensusDoc_Final_s.pdf).



**BE CAREFUL OF YOUR BROADBAND WISHES:  
COMPLIANCE REQUIREMENTS FOR BTOP- AND BIP-  
AWARD GRANTEES**

by

Daniel Margolis\*

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009 (ARRA).<sup>1</sup> Among the many goals outlined in the ARRA is funding to the Department of Agriculture and the Department of Commerce to expand broadband access to rural and unserved parts of the United States. The total allocation of \$7.2 billion is jointly shared by these two departments under two programs. The Department of Commerce, through the National Telecommunications and Information Administration (NTIA), will administer a grant program, which is entitled the “Broadband Technology Opportunities Program” (BTOP), while the Department of Agriculture, through the Rural Utilities Service (RUS), will administer a grant/loan program, to be known as the “Broadband Initiatives Program” (BIP). On July 1, 2009, NTIA and RUS jointly issued the first of two Notices of Funding Availability (NOFAs) detailing the rules, application procedures, and scoring criteria for participation in the programs.

**I  
BROADBAND INITIATIVES PROGRAM**

The ARRA appropriated to and authorized RUS to spend \$2.5 billion to provide loans, grants, and combinations thereof to pay for broadband infrastructure projects in rural America.<sup>2</sup> Approximately \$2 billion will

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<sup>1</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No 111-5, 123 Stat. 115, (2009), available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111\\_cong\\_bills&docid=f:h1enr.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h1enr.pdf), [hereinafter ARRA].

<sup>2</sup> See *id.*, Title I.

be provided in the form of grants while the balance will be used to provide up to \$7 billion in loans. The monies will support projects to serve areas that are at least 75% “rural” and that lack sufficient access to high-speed broadband service. For purposes of the first NOFA, broadband service means “two-way data transmission with advertised speeds of at least 768 kbps downstream and at least 200 kbps upstream to end users.”<sup>3</sup> A “rural” area is defined as any area that “is not located within: (1) a city, town or incorporated area that has a population of more than 20,000 inhabitants; or (2) an urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000 inhabitants.”<sup>4</sup> An application for infrastructure in areas that are at least 75% rural must first be reviewed and denied by RUS before the application is eligible for BTOP funding.<sup>5</sup>

The BIP program will support infrastructure projects in three categories: last-mile remote area projects, last-mile non-remote area projects, and middle-mile projects.<sup>6</sup> A “remote area” is an unserved rural area 50 miles from the limits from a non-rural area.<sup>7</sup> The last-mile remote area projects will provide broadband services directly to end users in remote areas.<sup>8</sup> Last-mile non-remote area projects may cover both non-remote and remote areas.<sup>9</sup> Middle-mile projects will connect at least two points, without rendering services to the premise or end users, but must be capable of bringing broadband service to eligible service areas.<sup>10</sup>

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<sup>3</sup> Department of Commerce, Notice of Funds Availability and Solicitation of Applications, 74 Fed. Reg. 33104, 33107 (July 9, 2009, *available at* <http://www.broadbandusa.gov/files/BB%20NOFA%20FINAL%2007092009.pdf>, [hereinafter NOFA].

<sup>4</sup> *Id.* at 33109

<sup>5</sup> NOFA, *supra* note 3, at 33114.

<sup>6</sup> *See id.* at 33106.

<sup>7</sup> *Id.* at 33109.

<sup>8</sup> *Id.* at 33198.

<sup>9</sup> *See* NOFA, *supra* note 3.

<sup>10</sup> *Id.* at 33114.

Approximately \$2.4 billion was allocated to the first NOFA.<sup>11</sup> Up to \$1.2 billion is available for last-mile projects, with \$400 million in grants and \$800 million in loan or loan/grant combinations. Another \$800 million will be available for loans or loan/grant combinations for middle-mile projects.<sup>12</sup>

The BIP grants will fund applications proposing to serve areas that are exclusively remote, unserved, or rural.<sup>13</sup> BIP loan and loan/grant combination awards will be used to provide funding to applicants proposing to serve non-remote and underserved rural areas.<sup>14</sup> The size of the grant portion of any loan/grant combination award will be determined by the applicant, but may not exceed the amount of the loan portion of the award.<sup>15</sup> RUS will favor applications that propose a higher percentage of loan funds, and will permit applications requesting up to 100% loan funding.<sup>16</sup>

#### A. Priorities and Scoring

Under the ARRA, 75% of a BIP-funded area must be “rural” and lack sufficient access to high-speed broadband service to facilitate rural economic development.<sup>17</sup> Additionally, priority will be given to projects that:

- Give end users a choice of providers;
- Serve the highest proportion of rural residents that lack access to broadband service;
- Are projects of current or former RUS borrowers; and
- Are fully funded and ready to start once the ARRA

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<sup>11</sup> *See id.*

<sup>12</sup> *Id.* at 33109.

<sup>13</sup> NOFA, *supra* note 3 at 33106.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> NOFA, *supra* note 3, at 33105.

funding is received.<sup>18</sup>

BIP applications will be scored on a 100-point scale, with 25 points allocated equally to the project's purpose, benefits, viability and budget, and sustainability.<sup>19</sup>

## II

### **BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM**

The BTOP program is administered by NTIA, which plans to award up to \$1.6 billion in grants in the first round.<sup>20</sup> The largest portion of funding, up to \$1.2 billion, will go to broadband infrastructure.<sup>21</sup> These funds will be used for projects delivering broadband services through last or middle-mile facilities to unserved and underserved areas.<sup>22</sup> Areas composed of one or more contiguous census blocks, where at least 90 percent of households in the proposed funded service area lack access to broadband, are considered “unserved.”<sup>23</sup> For last-mile projects, areas are “underserved” if they are composed of one or more contiguous census blocks where: 1) no more than 50% of households in the proposed funded area have access to broadband; or 2) no service provider advertises broadband speeds of at least 3 Mbps downstream in the proposed funded area; or 3) the rate of subscribership for the proposed service area is 40% of households or less.<sup>24</sup> For middle-mile projects, an area is “underserved” if it is composed of one or more contiguous census blocks where one interconnection point terminates in a census block area(s) that qualifies as “unserved” or “underserved” for last-mile projects.<sup>25</sup>

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<sup>18</sup> *Id.* at 33106.

<sup>19</sup> *See id.* at 31118-19.

<sup>20</sup> *Id.* at 33110.

<sup>21</sup> NOFA, *supra* note 3 at 33110.

<sup>22</sup> *Id.* at 33111.

<sup>23</sup> *Id.* at 33130.

<sup>24</sup> *Id.* at 33131.

<sup>25</sup> NOFA, *supra* note 3 at 33130.

BTOP will also fund other non-infrastructure programs. NTIA has allocated up to \$50 million to fund projects that expand computer center capacity at entities that permit the public to use these computer centers, including community colleges and public libraries.<sup>26</sup> NTIA has also allocated up to \$150 million, under its Sustainable Broadband Adoption program, to fund innovative projects that promote broadband demand, including projects that focus on broadband education, awareness, training, access, equipment, or support, particularly among vulnerable populations, including the low-income, unemployed, and aged.<sup>27</sup>

In order to be qualify for BTOP funding, an applicant must be an eligible entity, submit a complete application along with all supporting documents, demonstrate that its project can be substantially completed within three years of the date of the grant issuance, advance one or more of the five BTOP statutory purposes, provide matching funds of at least 20% toward the eligible project costs (unless granted a waiver), document that its project would not be implemented during the grant period but for the federal grant, and demonstrate that its budget is reasonable.<sup>28</sup>

Additionally, if the project is for broadband infrastructure, the proposal must:

1. Propose to offer two-way data transmission with advertised speeds of at least 768 Kbps downstream and at least 200 Kbps upstream to end users or sufficient capacity in a middle-mile project to support the same speeds to end users;
2. Enable NTIA to determine that the proposed project is technically feasible, including the submission of a system design and project timeline certified by a professional engineer for any project requesting over \$1 million;
3. Demonstrate the ability of the project to be sustained beyond the

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<sup>26</sup> *Id.* at 33110.

<sup>27</sup> *Id.*

<sup>28</sup> *Id.* at 33116.

funding period;

4. Commit to the BTOP program's non-discrimination and interconnection obligations, which requires the project to:

- Adhere to the Federal Communication Commission's (FCC) Internet Policy Statement regarding net-neutrality;
- Not favor some lawful applications and content over others;
- Describe and display any network management policies;
- Connect to the public Internet and not be an entirely private closed network; and
- Offer physical interconnection for the exchange of traffic;

5. For last-mile infrastructure projects, provide service to the entire territory of each census block included in the funded service area, unless the application provides a reasoned explanation as to why providing coverage for an entire census block is infeasible.<sup>29</sup>

#### B. BTOP Application Review Process

The BTOP application review consists of a two-step process, which begins after an application has been determined to meet basic eligibility factors, including completeness. In the first step, the application is evaluated by three independent expert reviewers, who score the applications against the evaluation criteria. BTOP applications will be awarded up to 100 points total, up to 30 points for the project purpose, 25 points for project benefits, 25 points for project viability and 20 points for project budget and sustainability. The three independent scores will then be averaged.<sup>30</sup> Only the most highly qualified applications will advance to the second phase.

The second phase of the application review is a "due diligence" phase. NTIA will ask applicants to submit additional information to substantiate the representations made in the application. The type of information requested will depend on the type of funding that the

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<sup>29</sup> NOFA, *supra* note 3 at 33110.

<sup>30</sup> NOFA, *supra* note 3 at 33107.

applicant seeks. NTIA will then review the addition information, compare it to the underlying application, and award it up to five points based on the supplemental information's consistency with the application. Inconsistencies may result in dismissal.<sup>31</sup>

Once applications have successfully completed phase two of the application process, the states will be asked to make recommendations concerning the allocation of funds for qualifying projects in or affecting each individual state. Other service providers will be given a chance to demonstrate that the areas described in the applications are not truly “unserved” or “underserved.”<sup>32</sup>

### III POST-AWARD GRANT COMPLIANCE

#### A. Audit, Reporting, and Record-keeping Requirements

Because the monies available under these programs are federal grants, they are administered by federal agencies, two in this case, each with numerous layers of regulatory compliance requirements. NTIA, responsible for grants administered under BTOP, is an agency operating under the auspices of the Department of Commerce (DOC).<sup>33</sup> Accordingly, grants are subject to the same federal regulations that any other grant would be subject to from a DOC sub-agency as well as the specific award terms that are applicable to ARRA monies. These federal rules and regulations specify that grant recipients and sub-recipients have in place accounting standards, financial management systems to separately account for federal funds received, written procedures for minimizing the number of draw-downs, for procurement, and for property management.<sup>34</sup> Federal regulations require that funds received

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<sup>31</sup> *Id.* at 33107.

<sup>32</sup> *Id.* at 33107.

<sup>33</sup> See National Telecommunications and Information Administration: About NTIA, <http://www.ntia.doc.gov/about.html> (last visited Jan. 10, 2009).

<sup>34</sup> See generally, OFFICE OF MGMT. & BUDGET, CIRCULAR A-110, UNIFORM ADMINISTRATIVE REQUIREMENTS FOR GRANTS AND AGREEMENTS WITH INSTITUTIONS OF HIGHER EDUCATION, HOSPITALS, AND OTHER NON-PROFIT ORGANIZATIONS (as amended Sept. 30, 1999), available at <http://www.whitehouse.gov/omb/rewrite/circulars/a110/a110.html> [hereinafter A-110].

by grantees are expended within 30 days and that the granting agency review and approve any changes to a project's budget or key personnel before the changes are made.<sup>35</sup> Additionally, strict cost principles govern what costs are permitted to be covered by grant monies. Finally, under the ARRA, quarterly financial and technical reports are required to be submitted to the granting agency.<sup>36</sup>

The DOC grants are subject to the administrative guidelines set forth in parts 14 and 24 of Title 15 of the U.S. Code of Federal Regulations.<sup>37</sup> The DOC Pre-Award Notification Requirements sets forth the federal policies and procedures to all DOC grants,<sup>38</sup> including the pre-award screening requirements for management capabilities, financial condition, and fiscal responsibility applicable to all grantees. It establishes the administrative requirements and cost principles applicable to any line item for which federal funding is sought. It also subjects grantees to federal audits and accounting requirements for all projects that receive federal funding, as well as to principals regarding program debarment, suspension, drug-free workplace, and lobbying regulations. Finally, all documentation submitted to the granting agency is susceptible to Freedom of Information Act disclosure.<sup>39</sup>

Further regulations that are applicable to DOC grants are contained in the various circulars published by the Office of Management and Budget.<sup>40</sup> Circular A-133 establishes the audit guidelines for state, local, and tribal governments as well as for non-profit corporations.<sup>41</sup> NTIA

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<sup>35</sup> See generally 7 C.F.R. § 3015 (2009); 7 C.F.R. § 3016 (2009); and 7 C.F.R. § 3019 (2009).

<sup>36</sup> See ARRA, *supra* note 1, § 1512 (c).

<sup>37</sup> See 15 C.F.R. § 14 (1998); 15 C.F.R. § 24 (1998).

<sup>38</sup> Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements, 73 Fed. Reg. 7696 (Feb 11, 2008), *available at* [edocket.access.gpo.gov/2008/pdf/E8-8581.pdf](http://edocket.access.gpo.gov/2008/pdf/E8-8581.pdf) [hereinafter DOC Requirements].

<sup>39</sup> *Id.*

<sup>40</sup> See generally, White House Office of Management and Budget, Grants Management Circulars, [http://www.whitehouse.gov/omb/rewrite/GRANTS/grants\\_circulars.html](http://www.whitehouse.gov/omb/rewrite/GRANTS/grants_circulars.html).

<sup>41</sup> See generally, OFFICE OF MGMT. & BUDGET, CIRCULAR A-133, AUDITS OF STATES, LOCAL

will propound formal audit guidelines for for-profit entities, though they have not yet been officially released, and RUS has already done so for BIP projects.<sup>42</sup>

OMB Circular A-110 establishes the uniform administrative regulations that apply to grant recipients.<sup>43</sup> It generally sets forth the standards for obtaining consistency and uniformity among granting agencies in how grants are administered to institutions of higher education, hospitals, and other non-profit organizations.<sup>44</sup> It sets forth the pre-award notification requirements and post-award compliance requirements for grant and sub-grant recipients. Pre-award notification requirements generally include screenings for management, financial condition and overall responsibility of the grantee, the grantee is compliant with the administrative and cost principle requirements, that the grantee understands and consents to audit oversight, that the grantee states that it is not subject to debarment or suspension in any other federal grant program, that the grantee attests that it complies with drug-free workplace requirements, that the grantee complies with strict lobbying policies, and that the grantee consents to all submitted documentation being subject to the Freedom of Information Act.<sup>45</sup> These requirements are similarly propounded to state, local, and tribal governments via OMB Circular A-102.<sup>46</sup> Within both of these circulars, regulations are established that require that the regulations applicable to grantees flow down to sub-grantees of federal funds.<sup>47</sup>

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GOVERNMENTS, AND NON-PROFIT ORGANIZATIONS (as amended June 27, 2003), *available at* <http://www.whitehouse.gov/omb/rewrite/circulars/a133/a133.html> [hereinafter A-133].

<sup>42</sup> See NOFA, *supra* note 3, at 33122; 7 C.F.R. § 1773.4 (2001). As of the date of publication, NTIA has not yet posted its NTIA BTOP Program Specific Audit Requirements for For-Profit Entities. When it becomes available, it will be posted at <http://www.broadbandusa.gov/compliance.htm>.

<sup>43</sup> See A-110, *supra* note 34.

<sup>44</sup> See *id.*

<sup>45</sup> See *id.*

<sup>46</sup> OFFICE OF MGMT. & BUDGET, NORWOOD JACKSON, CIRCULAR A-102, GRANTS AND COOPERATIVE AGREEMENTS WITH STATE AND LOCAL GOVERNMENTS (as amended Aug. 29, 1997), *available at* [http://www.whitehouse.gov/omb/circulars\\_a102/](http://www.whitehouse.gov/omb/circulars_a102/).

<sup>47</sup> See *id.*; A-110, *supra* note 34.

The terms that are contained in the OMB circulars establish strict procurement standards that are consistent with the Office of Federal Procurement Policy Act Amendments of 1983.<sup>48</sup> Specifically, the standards require that grantees establish codes of conduct for employees participating in any contracting. There must be safeguards against conflicts of interest, which exist where a recipient employee, officer or agent, or any immediate family member, partner or organization that employs or is about to employ one, has a financial or other interest in the firm selected for an award.<sup>49</sup> Further, it establishes that grantees and sub-grantees may not solicit or accept gratuities or favors from contractors, potential contractors, or subcontractors.<sup>50</sup> Award recipients must have these procurement procedures in writing, must competitively bid out each subcontract that receives federal funding, and must sufficiently document the basis for any contractor selection, including the justification for not using a competitive bidding process, if a competitive bidding process is not used, and a full cost and price analysis.<sup>51</sup>

Applicants are required to submit various reports over the life of their funded project.<sup>52</sup> These financial reports are established by the terms and conditions found in each grant award. Recipients must manage and monitor any and all award sub-recipients to ensure that the sub-recipient also complies with reporting and audit requirements.<sup>53</sup> All records that pertain to a grant award must be kept for 3 years following the submission of the final expenditure report unless there is a pending audit, pending litigation, or other claim against the award.<sup>54</sup> Grantees and sub-

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<sup>48</sup> 41 U.S.C. §§ 403-438 (1974), *amended by* Act of Dec. 1, 1983, Pub. L. 98-191, 97 Stat. 1325.

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *See* ARRA, *supra* note 1, §§ 1512, 1553.

<sup>53</sup> *See* 15 C.F.R. § 14.53 (2009); 15 C.F.R. §§ 24.40-24.44 (2009).

<sup>54</sup> *Id.*

grantees must also be aware that each granting agency's Inspectors General will have unrestricted access to any and all documentation and is able to subpoena and interview any federal grantee's personnel.<sup>55</sup>

Cost principles are established for different types of entities in different locations. Educational institutions' cost principles are set forth in OMB Circular A-21.<sup>56</sup> State and local governments' cost principles are found in OMB Circular A-87.<sup>57</sup> Non-profit entities' cost principles are found in OMB Circular A-122<sup>58</sup> and the cost principles for commercial organizations are set forth in Part 31 of Title 48 of the Code of Federal Regulations.<sup>59</sup> Generally, the documents establish that allowable costs are those that are reasonable and necessary, that are allocable relative to the benefits received and that they must be given consistent treatment through the application of those generally accepted accounting principles appropriate to the circumstances.

A cost may be considered reasonable if the nature of the goods or services acquired or applied, and the amount involved therefore, reflect the action that a prudent person would have taken under the circumstances prevailing at the time the decision to incur the cost was made.<sup>60</sup> A cost is allocable to a particular cost objective (i.e., a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received or another

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<sup>55</sup> *Id.*

<sup>56</sup> See OFFICE OF MGMT. & BUDGET, CIRCULAR A-21 COST PRINCIPLES FOR EDUCATIONAL INSTITUTIONS (as amended May 10, 2004), *available at* [http://www.whitehouse.gov/omb/circulars/a021/a21\\_2004.pdf](http://www.whitehouse.gov/omb/circulars/a021/a21_2004.pdf).

<sup>57</sup> See OFFICE OF MGMT. & BUDGET, CIRCULAR A-87 COST PRINCIPLES FOR STATE, LOCAL, AND INDIAN TRIBAL GOVERNMENTS (as amended May 10, 2004), *available at* [http://www.whitehouse.gov/omb/circulars/a087/a87\\_2004.pdf](http://www.whitehouse.gov/omb/circulars/a087/a87_2004.pdf).

<sup>58</sup> See OFFICE OF MGMT. & BUDGET, CIRCULAR A-122 COST PRINCIPLES FOR NON-PROFIT ORGANIZATIONS (as amended May 10, 2004), *available at* [http://www.whitehouse.gov/omb/assets/omb/circulars/a122/a122\\_2004.pdf](http://www.whitehouse.gov/omb/assets/omb/circulars/a122/a122_2004.pdf) [hereinafter A-122].

<sup>59</sup> See 48 C.F.R. § 31.2 (2009).

<sup>60</sup> See A-122, *supra* note 58 at 6.

equitable relationship.<sup>61</sup> Direct costs are those costs that can be identified specifically with a particular sponsored project, or that can be directly assigned to such activities relatively easily with a high degree of accuracy; these can include personnel, travel, equipment, materials and supplies, or other contracts.<sup>62</sup> Indirect costs are costs that “cannot be readily identified with a single cost objective but may have common or joint objectives.”<sup>63</sup> These costs can include general administrative costs, salaries and expenses, personnel administration, accounting costs, fringe-benefit costs, office space rent costs, or other types of maintenance.<sup>64</sup>

To ensure compliance with programmatic rules and grant regulations, numerous certifications and assurances must be made to the granting agency both at the time of the grant application and at the time of the grant award. The applicant makes these certifications and assurances to the granting agency, and range in topic from employment and wage requirements to compliance with environmental regulations. The DOC requires that any recipient of grant monies under a DOC grant must comply with and require each of its contractors and subcontractors employed in the completion of the contract to comply with all applicable statutes, regulations, executive orders, OMB circulars, terms and conditions, and approved applications.<sup>65</sup> As part of the DOC’s consolidations of these requirements, the DOC has issued a document setting forth the standard terms and conditions that must be complied with.

Numerous federal acts and regulations apply to federally funded projects. ARRA-funded projects are required to adhere to each of these acts and regulations. The regulations covering wage requirements ensure that all laborers and mechanics employed by contractors and subcontractors on ARRA-funded projects must be paid wages at rates not less than those prevailing on projects of similar character in the same

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<sup>61</sup> *See id.* at 7.

<sup>62</sup> *Id.* at 8-9.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> *See* DOC Requirements, *supra* note 38.

locality as determined by the Secretary of Labor.<sup>66</sup> These requirements, from the Davis-Bacon Act, must be contained in contracts and subcontracts that are federally supported and in excess of \$2,000 for any construction, alteration, or repair of infrastructure.<sup>67</sup> The regulations promulgated by the National Environmental Policy Act<sup>68</sup> and the National Historic Preservation Act<sup>69</sup> must also be followed.<sup>70</sup> Each has its own regulatory compliance process applicable to any construction or infrastructure project and all permitting must be completed prior to any BTOP or BIP project's approval.

The ARRA also establishes its own internal reporting requirements. On June 22, 2009, Peter Orszag, Director of the Executive Office's Office of Management and Budget, released OMB Guidance Document M-09-21.<sup>71</sup> The memorandum set forth guidance on how Section 1512 of the ARRA would be implemented. Section 1512 of the ARRA required that the financial reports submitted by ARRA grant recipients provide information on four substantive questions.<sup>72</sup> First, § 1512 required that grantees provide information on who is receiving grant monies and how much money was received by each grantee, including whether the monies received have gone to sub-grantees or other sub-award recipients. Second, information would describe what projects were being funded

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<sup>66</sup> See ARRA, *supra* note 1, § 1606

<sup>67</sup> See 40 U.S.C. §§ 3141-3148 (2007).

<sup>68</sup> See 42 U.S.C. §§ 4321-4346 (2007).

<sup>69</sup> See 16 U.S.C. § 470 (2007).

<sup>70</sup> See ARRA, *supra* note 1, § 1609; See also, 36 C.F.R. § 800 (2004). The National Historic Preservation Act of 1966 requires that any federally funded, licensed or permitted project consider the nation's historic resources. 16 U.S.C. § 470f (1966). ARRA is a federal program that provides such funding. This review process is one that identifies significant historic properties so that impacts caused from government-assisted actions can be avoided, minimized or mitigated. This review applies to all ARRA applicants.

<sup>71</sup> PETER R. ORSZAG, WHITE HOUSE OFFICE OF MANAGEMENT AND BUDGET, IMPLEMENTING GUIDANCE FOR THE REPORTS ON USE OF FUNDS PURSUANT TO THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (June 22, 2009), available at [http://www.whitehouse.gov/omb/assets/memoranda\\_fy2009/m09-21.pdf](http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21.pdf).

<sup>72</sup> See ARRA, *supra* note 1, § 1512.

with ARRA funds. Third, reports need to provide the completion status of projects funded under ARRA. Finally, reports must provide what impact the projects have had on job creation and retention. Prime recipients must report under § 1512 quarterly, starting September 30, 2009, and within ten days of the conclusion of each quarter. These reports are then made available to the public within 30 days of their submission to the OMB online reporting repository.<sup>73</sup>

Beyond the reporting requirements set forth in the ARRA, the first NOFA released jointly by NTIA and RUS established its own additional project-dependent reporting requirements.<sup>74</sup> For applicants proposing infrastructure projects, information regarding uses of funds, finances, broadband deployment and speeds, network management, interconnection, prices, and subscriptions will need to be provided to NTIA or RUS.<sup>75</sup> For public computing center grant recipients, regarding uses of funds, technology and services offered, and customers served, as well as for sustainable adoption grant recipients, information regarding the use of funds, the technologies and services offered, the individuals served, and broadband users generated.<sup>76</sup>

Entities that violate any of the above terms and conditions are subject to a variety of sanctions by the NTIA and RUS. The granting agency may impose additional special award conditions or suspend any payments to the grantee under the award. Additionally, the award may be terminated, the grantee may become subject to debarment or program suspension, and the granting agency may de-obligate itself from the award and seek to recover any awarded funds.

Grantees must also understand that, by accepting federal funds, they become subject to agency audits. The granting agency's Inspector General may subject the awardee to cost and compliance audits as well as ongoing performance audits.<sup>77</sup> Single or program-specific audits may be

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<sup>73</sup> *Id.*

<sup>74</sup> NOFA, *supra* note 3 at 33124

<sup>75</sup> *Id.* at 33125.

<sup>76</sup> *Id.*

<sup>77</sup> *See* U.S. DEPARTMENT OF COMMERCE AMERICAN RECOVERY AND REINVESTMENT ACT AWARD

performed under the grants by specific governmental agencies or may be referred to outside non-government entities. Specific audits may cover any number of topics, including, but not limited to, an awardee's financial management systems, matching or in-kind contributions, project scope or budget revisions, procurement practices, property-management practices, sub-recipient monitoring, financial- and performance-reporting compliance, reporting of program income, or cost-management compliance.

Additionally, pursuant to the Single Audit Act, as amended, and as implemented by OMB Circular A-133, if a grantee receives \$500,000 or more in federal funds, the grantee is required to have an annual audit completed by a certified public accountant and to have the results of the audit submitted to the federal government's Federal Audit Clearinghouse.<sup>78</sup> As implemented by the OMB circular, these single audit reports become publicly available once filed with the clearinghouse. Although these audit requirements do not currently apply to for-profit ARRA recipients, program-specific guidelines are currently being developed for those entities not already covered. For-profit entities receiving BIP loans or grants less than \$500,000 are still subject to federal reporting requirements under Section 1773 of Title 7.<sup>79</sup> The guidelines established require RUS grantees to have an annual audit conducted by an independent firm, with the first audit being completed within 12 months from the first advance of the BIP loan or grant.<sup>80</sup> The audit results must be submitted electronically within 120 days of the close of any 12-month audit period.<sup>81</sup> The audits must be completed by a CPA in accordance with the Generally Accepted Government Auditing Standards.<sup>82</sup> All documentation that is reviewed or prepared by any

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TERMS (2009), *available at* <http://oam.ocs.doc.gov/docs/ARRA%20DOC%20Award%20Terms%20Final%205-20-09PDF.doc.pdf>; *See also* A-133, *supra* note 41 at § 215.

<sup>78</sup> *See* A-133, *supra* note 41.

<sup>79</sup> *See* 7 C.F.R. § 1773 (2009).

<sup>80</sup> 7 C.F.R. § 1773.3 (2010).

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*

auditor must be made available to RUS' OIG upon request.<sup>83</sup> Finally, for BIP awards, RUS' Inspector General shall have a "reasonable opportunity, at all times during business hours and upon prior notice, to have access to and the right to inspect the broadband system and any other property encumbered by the mortgage or security agreement, and any or all books records accounts invoices contracts leases payrolls timesheets cancelled checks statements and other documents, electronic or paper of every kind belonging to or in the possession of the awardee or ... pertaining to its property or business including its subsidiaries if any and to make copies or extracts therefrom."<sup>84</sup>

#### IV CONCLUSION

In light of these requirements, applicants must strongly consider whether it is worth while for them to either accept any grant of an award that they may be granted from the first round, or to consider whether it makes business sense to participate in any additional round of grant funding. These additional burdens that accompany any federal grant increase the overall cost of any program and ultimately may outweigh the benefit that might be received from the underlying federal grant and long outlive any grantee's award.

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<sup>83</sup> 7 C.F.R. § 1773.10 (2010).

<sup>84</sup> See NOFA, *supra* note 3 at 33122.

**GOOGLE, THE GUILDS, AND THE READING PUBLIC:  
SETTLEMENT IS CODE IS LAW?**

by

Dariusz Adamski\*

In fall 2008, the Authors Guild and Google submitted an initial version,<sup>1</sup> and a year later (on Nov. 13, 2009) an amended version,<sup>2</sup> of a spectacular settlement to the Southern District of New York federal court. According to the deal, Google, in exchange for \$125 million and 63% of future revenues earned from the Book Search Project, would receive a default compulsory copyright license to scan books and market the scans. The bulk license would cover all U.S. copyrighted books registered with the U.S. Copyright Office (or published in Canada, UK or Australia) by January 5, 2009,<sup>3</sup> except for circumstances when a rights holder exercised the right to withdraw from the scheme before March 9, 2012 at the latest.<sup>4</sup> The deal does not only provide damages for past infringements, it also determines how Google can commercialize the books in the future. The settlement would allow Google to turn the Google Book Search into a gigantic e-bookstore. It unites previous adversaries, and turns a legal squabble into a promising joint venture with Google agreeing to pay \$34.5 million to set up a middleman collective society of the rights-holders, the Book Rights Registry, thereby

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<sup>1</sup> Settlement Agreement, In Authors Guild, et al. v. Google, No. 05 CV 8136-JES. (S.D.N.Y. Oct. 28, 2008) (hereinafter: Settlement 2008).

<sup>2</sup> Available at <http://www.googlebooksettlement.com/> (hereinafter: Settlement 2009 or Settlement).

<sup>3</sup> *Id.* at § 1.19.

<sup>4</sup> *Id.* at § 3.5(a).

representing rights holders in their future relationships with Google.<sup>5</sup>

In assessing the Settlement, this paper is broken into five sections. Section One highlights the main advantages of the Settlement. Section Two addresses the most commonly raised arguments against the Settlement: copyright and antitrust. Section Three focuses the Settlement's impact on libraries, researchers and the reading public. Sections Four and Five expand the perspective of Section Three into the contractual arrangements between Google and the libraries participating in the Google Library Project.

## I THE SETTLEMENT IS GREAT

When the mechanism for determining the default contracting position for millions of authors and publishers, typically a legislative matter, is instead determined by a negotiation of less than a dozen of lawyers, suspicions are raised. But by creating a formula, the Google Books Settlement achieves an extremely desirable social effect—it eliminates a large share of the enormous transaction costs plaguing the copyright system.<sup>6</sup> As a result, this Settlement opens up an entirely new way of making books available online, which arguably benefits both the copyright holders and the readers. An increase in book purchases would positively influence what economists call “dynamic efficiencies”: the prospect of enhanced innovation and creativity in the future.<sup>7</sup> A higher rate of book purchases would incentivize authors to write more and for Google to create new, even more innovative, products and services.

<sup>5</sup> *Id.* at § 2.1(c).

<sup>6</sup> The Settlement may look like a manifestation of what Siva Vaidhyanathan calls a “public failure”: “[t]he phenomenon in which a private firm steps into a vacuum created by incompetent or gutted public institutions. .... It's the opposite of 'market failure'”. Posting of Siva Vaidhyanathan to The Googlization of Everything, [http://www.googlizationofeverything.com/2009/01/baiducom\\_accused\\_of\\_rigging\\_se.php](http://www.googlizationofeverything.com/2009/01/baiducom_accused_of_rigging_se.php) (Jan. 6, 2009, 14:26 EST) (citing Chi-Chu Tschang, *The Squeeze at China's Baidu*, BUSINESSWEEK, Dec. 31, 2008, available at [http://www.businessweek.com/magazine/content/09\\_02/b4115021710265.htm](http://www.businessweek.com/magazine/content/09_02/b4115021710265.htm)). In fact, however, the Settlement is a remedy to this “public failure,” not a manifestation of it.

<sup>7</sup> “Purchase,” the term used in the Settlement, is very imprecise, because in fact Google would not sell copies of e-books. It would (only) enable perpetual online display of the items subscribed from the Google database.

In addition, the deal introduces Google as a new player to the market of commercially available paper and electronic books, thus strengthening competitive pressure and promising enhanced consumer welfare.<sup>8</sup> The interests of readers and writers seem to converge in the Settlement: the more digitized books are available for purchase, the more readers purchase, the more writers earn and therefore the more they write. Google profits by creating and proliferating a system that benefits everyone.<sup>9</sup> Considering all these benefits, the Settlement should indeed be called “a huge, quantum leap in our ability to find information.”<sup>10</sup>

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<sup>8</sup> Substitutability of paper books/e-books for the Google “cloud reading” product is, however, significantly reduced by several factors. For many readers paper enhances both the usefulness of a book and the pleasure of reading it (a factor which refers to e-books and books in the Google database alike). Moreover, the “cloud reading” makes the Google product much less attractive to readers than e-books. First, it disables the first sale doctrine because no copy is sold by Google. *See* 17 U.S.C. 109(a) (“the owner of a particular copy . . . is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy”). This feature significantly limits the entitlements of the subscription purchasers since Google retains the right to decide whether/how books can be copied or printed. Second, as no copies are reproduced on the user’s device, the reader must be online when accessing the book, and therefore cannot use the service in all the locations. Third, if for any reason Google quits its service, users would be permanently cut off from the books they have purchased. All this makes the Google access a rather poor substitute for both paper books and e-books.

<sup>9</sup> Everyone profits, except for other intermediaries, mainly sellers of printed and e-books, for whom the new the Settlement, if successful, will pose a serious risk for their primary revenue models.

<sup>10</sup> Juan Carlos Perez, *In Google Book Settlement, Business Trumps Ideals*, PCWORLD.COM, Oct. 30, 2008, [http://www.pcworld.com/businesscenter/article/153085/in\\_google\\_book\\_settlement\\_business\\_trumps\\_ideals.html](http://www.pcworld.com/businesscenter/article/153085/in_google_book_settlement_business_trumps_ideals.html) (quoting Eric Goldman, associate professor at Santa Clara University School of Law and Director of its High Tech Law Institute).

## II THE SETTLEMENT GETS PUZZLING

The deal is more curious in regard to commercially unavailable books.<sup>11</sup> Commentators have pointed out that many of the commercially unavailable books are orphans: protected works with rights holders who are difficult or impossible to track down.<sup>12</sup> It is unlikely that an orphan work's rights holder would even be aware of the Settlement, and thereby unable to either grant or refuse a license. Still, Google would market the book and profit from it.

Under the Settlement, all royalties are to be paid into the Registry. According to the Settlement 2008, the Registry would deduce 10-20% as an administrative fee, and then either would transfer the remaining part to the rights holder(s) or, if no rights holder came forward, the Registry would redistribute the royalties between active rights-holders of other books in the database.<sup>13</sup> This arrangement, however, would pose several questions: Should Google and the Registry profit from orphan works? Should unclaimed royalties go to authors and publishers of unrelated works? Should there be any royalties from orphan works at all? These are all legitimate dilemmas made visible by the Settlement 2008, though not created by it. Orphan works are engendered by the copyright system that over-protects intellectual property. This system excludes those works from the public domain even if a rights holder does not take basic steps to demonstrate her willingness to protect what legislation has defined as her "sphere of interest." The Settlement 2008 alleviated these problems in two respects. First, all an orphan work would need to be read is a reader, which the Settlement provides. The deal, therefore, would restore

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<sup>11</sup> Out-of-print copyrightable works comprise a lion's share of the "Google Library Project" on which the Google Book Search is built. In November 2008, when the settlement was announced, five out of every six copyrighted books scanned by Google belonged to this category.

<sup>12</sup> See, e.g., P. Samuelson, *Legally Speaking: The Dead Souls of the Google Booksearch Settlement*, 52 Comm. of the ACM Jul. 2009; Posting of Peter Hirtle to LibraryLaw Blog, <http://blog.librarylaw.com/librarylaw/2009/04/google-book-settlement-orphan-works-and-foreign-works.html>; (Apr. 21, 2009); Miguel Helft, *Google's Plan for Out-of-Print Books Is Challenged*, N.Y. Times, Apr. 3, 2009, at A1, available at [http://www.nytimes.com/2009/04/04/technology/internet/04books.html?\\_r=1](http://www.nytimes.com/2009/04/04/technology/internet/04books.html?_r=1).

<sup>13</sup> Settlement Agreement 2008, *supra* note 1, at § 6.3(a)(i)(1).

these works to the reading public, an achievement impossible without a default license and without remunerating Google. Second, the redistribution mechanism of unclaimed royalties essentially boils down to inactive rights-holders, heirs of writers passed away or successors of publishers wounded up, in the first place, supporting newer writers for whom royalties play a role as an incentive for future creativity.

The Settlement 2009, however, fundamentally modifies this mode of incentivizing future creators. The new rules rearrange the scheme entirely, stating that no other creator but the rights holder should benefit from revenues received by the Registry.<sup>14</sup> If a book scanned by Google has not been claimed for five years since the Settlement's court approval, then up to 25% of the unclaimed funds may be devoted to locating the rights holder(s).<sup>15</sup> If this attempt proves futile during the subsequent five years, unclaimed funds will be transferred to governments of the respective states covered by the Settlement, and "distributed to literacy-based charities in each such country that directly or indirectly benefit the Rightsholders and the reading public."<sup>16</sup>

This shift seems commendable: if copyright is a sort of a property, and it (almost) is, then no one but the rights holder should benefit from the royalties. This scheme should facilitate it, and prevent Google from authorizing redistribution of the revenues to people unrelated to the rights holder. The current version of the Settlement, therefore, is more congruent with the logics of the extant copyright system. But this has its price, also derived for the intrinsic logics of the copyright system - high transaction costs. On the one hand the Settlement 2009 limits them by eliminating administrative fees, which were to be charged by the Register pursuant to the earlier version of the deal. But, on the other hand, the fees dedicated to locating the author, and the sums deducted from unclaimed resources on the way between the Register and a final beneficiary of the literacy-based charity will be substantial. Therefore, even though the Internet is commonly appreciated for eliminating intermediaries and thus reducing transaction costs, the Settlement, to strictly follow requirements of the copyright system, operates in a precisely obverse manner.

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<sup>14</sup> Settlement Agreement 2009, *supra* note 2, at § 6.3(a)(i)(1).

<sup>15</sup> *Id.* at § 6.3(a)(i)(2).

<sup>16</sup> *Id.* at § 6.3(a)(i)(3).

A more legitimate apprehension regarding commercially unavailable books is the antitrust concern, which involves the non-existence of imminent mechanisms to restrain prices for the Google scans. To oversimplify, “Amazon would not have the book.” Yahoo and Microsoft would not have an easy access to it either. The Settlement erects entry barriers to magnify the first mover advantage for Google. In order to strike a similar deal with the Registry, one of Google’s competitors would first have to be sued by the Registry and have settlement terms granting the competitor a similar default license. However, the Registry will not be interested in granting similar default licenses. Google pays for establishing the Registry. It is hard to imagine that, even though Google does not have a say on the Registry’s Board of Directors,<sup>17</sup> Google’s interests will not be sincerely taken into account by the Registry. By failing to settle with Google’s competitor, the Registry would preempt entry to the market created by the Settlement.

The Settlement 2008 further exacerbated this competitive hurdle by providing that even if the Registry did sign a similar deal with one of Google’s competitors, the latter would nonetheless not be able to compete because the Settlement protects Google against such a possibility with a one-way most favored nation clause. The clause clearly stated: “The Registry ... will extend economic and other terms to Google that, when taken as a whole, do not disfavor or disadvantage Google as compared to any other substantially similar authorizations granted to third parties.”<sup>18</sup> Consequently, potential competitors would be severely discouraged from trying to break into the market formed by the Settlement.

To escape the competitive deadlock produced by such a situation, some commentators suggested that the Most Favored Nation (“MFN”) clause should be struck out of the Settlement, and possibly replaced by

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<sup>17</sup> *Id.* at § 6.2(b)(ii) (“The Registry will have equal representation of the Author Sub-Class and the Publisher Sub-Class on its Board of Directors, with each act of the Board requiring a majority of the directors, with such majority including at least one director who is a representative of the Author Sub-Class and one director who is a representative of the Publisher Sub-Class.”).

<sup>18</sup> Settlement Agreement 2008, *supra* note 1, at § 3.8(a) (the clause was to apply for 10 years from the extended Notice Commencement date).

an obligation of non-discrimination.<sup>19</sup> Arguably, this would level the playing field and enhance competition—both very desirable effects. At a second glance, however, the non-discrimination requirement is not as compelling and it would lead to serious practical complications: What should non-discrimination mean if Google solely pays for setting up the Registry and then the revenues of potential competitors are impossible to calculate upfront? How would such a regulatory structure be enforced, and by whom? And how can the regulatory structure avoid high costs and limited efficiency, two constant features of US economic regulation?

In the Settlement 2009 the explicit requirement of non-discrimination was not upheld, but the postulate to delete the MFN clause was accepted. In other words, Google's competitors would not be barred from concluding a more lucrative settlement with the Registry than Google achieved.

This amendment sounds like an important step towards eliminating serious competitive concerns the Settlement 2008 raised. But were they really so serious? Even under the heavily criticized MFN clause, no competitor of Google would have to strike a deal with the Registry (or the plaintiffs to the case against Google) to enter the market on the same or even more favorable conditions than Google did. The default license Google would receive is non-exclusive,<sup>20</sup> thus the rights holders can authorize anyone else to scan their books as well. In such a situation certainly none of Google's competitors would have access to its scans, and no claim solely on this ground seems tenable.<sup>21</sup> Yet any of Google's

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<sup>19</sup> Randal C. Picker, *The Google Book Search Settlement: A New Orphan-Works Monopoly?* 23 (John M. Olin Law & Economics, Working Paper No. 462, 2009); J. Grimmelmann, *How to Fix the Google Book Search Settlement*, 12 JOURNAL OF INTERNET LAW 10, 15 (2009).

<sup>20</sup> Settlement Agreement 2008, *supra* note 1, and Settlement Agreement 2009, *supra* note 2, at § 2.4.

<sup>21</sup> Some may argue that the Google's database of scanned books is an "essential facility," because it cannot be reasonably duplicated by either its existing or potential competitors. Yet, even regardless of the fact that the essential facilities doctrine was rejected by the Supreme Court in *Verizon Comm Inc. v. Law Offices of Curtis V. Trinko LLP*, 540 U.S. 398 (2004), the argument would be tantamount to authorizing less creative firms to free-ride on the efforts of Google. Besides this, it may be predicted that in few years either the technology used and/or the business model of the Google Books Search will not be as efficient as they seem to be now, entirely cleaving the argument of non-duplicability.

competitors could be sued by other organizations representing rights-holders, in order to settle the case and obtain a similar compulsory default license, perhaps even on conditions more favorable to readers and/or rights-holders. In such a scenario the rights-holders who have not opted-out of the Google system, or a “clone” set up by a Google competitor, would, by default, be bound by multiple licenses.

Certainly being sued as an enabler for market entry sounds very bizarre. Yet it is merely the bizarreness of a river meandering between obstacles set by the copyright system, filling up a channel created by the institutions of class actions and a default copyright license. Most importantly for the antitrust matters, such a maneuver would obliterate the arguments of a digital cartel allegedly created by the Settlement or by the MFN clause of the Settlement 2008.

### **III WHAT THE SETTLEMENT MEANS FOR LIBRARIES, RESEARCHERS AND THE READING PUBLIC**

The preceding discussion confirms that the Settlement, just as the parties boast in its preamble, “will be of great benefit to copyright owners (including authors and publishers).”<sup>22</sup> Yet the same sentence promises equally “great benefits” to “libraries, researchers, and the reading public.” The Settlement, however, leaves this promise unfulfilled for any of these categories: for libraries, researchers, and the part of the “reading public” understood literally, as those who read books through libraries without buying them, presumably students on the majority.

Books are an essential aspect to our society: no other medium transmits and disseminates knowledge better than books. Advanced societies are built and thrive on knowledge found in books. Even if the indirect social benefits of education and knowledge derived from books, positive externalities as the economists call them, are impossible to estimate, they exist. Education, and the progress it engenders, are a function of how widely books are read and how easily available books are. This is why Article I of the U.S. Constitution explicitly links the “exclusive Right to their Writings and Discoveries of Authors and

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<sup>22</sup> Settlement Agreement 2009, *supra* note 2, at 1.

Inventors” with “promoting the Progress of Science and useful Arts.”<sup>23</sup> The very institution of the library system, and the role it plays in America, is an expression of this commitment and the understanding of the educational function of books. This function and its core benefits are seriously diminished when the interests of the reading public are disregarded.

#### A. What the Reading Public Contributes

According to the Settlement, libraries, by allowing Google to scan their books, may either have the status of Fully Participating (“FP”) or Cooperating Libraries.<sup>24</sup> Cooperating Libraries give their books to Google for digitization, expecting literally nothing from it, while FP libraries may receive digital copies in return. As envisioned by the Settlement, the expectation of the FP libraries is pretty tenuous. Based solely on Google’s discretion,<sup>25</sup> FP libraries may receive scans, referred to in the Settlement as Library Digital Copies (“LDC”), of the items from its collection that Google decides to digitize.<sup>26</sup> Alternatively, an FP library may also receive scans of the remaining books from its collection (i.e. the books Google already had in its database but did not want to duplicate by scanning the same book from another collection), on the condition that the collection is valuable enough for Google to scan more than one-third of the library.<sup>27</sup> This mechanism clearly puts richer libraries and those more willing to cooperate with Google at an advantage.

After approval from the Registry, Google may host the digitized collections of FP libraries.<sup>28</sup> It also, quite predictably, restricts for itself free searching services, and may freely limit those services to 85% of the

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<sup>23</sup> U.S. Const. Article I, §8, cl. 8.

<sup>24</sup> Settlement Agreement 2009, *supra* note 2, at §§ 1.39, 7.2(a).

<sup>25</sup> *Id.* at § 7.2(a)(i) (“Google may” is used in this context).

<sup>26</sup> *Id.*

<sup>27</sup> *Id.* at § 7.2(a)(ii) (the method is similar, but more complicated, regarding Institutional Consortia. *See Id.* at § 7.2(a)(iii)).

<sup>28</sup> *Id.* at § 7.2 (d)(ii).

collections.<sup>29</sup> Essentially, no FP library may receive from Google a LDC of a title it does not have in its paper collection.<sup>30</sup>

The abovementioned relationship between the digital copies and the library collections demonstrates the meaning of “full participation.” There are some more details here, though. The LDCs may be used to preserve the collection. In particular, the libraries are authorized to use the digital copies in order to create “a print format replacement copy of a Book solely for the purpose of replacing a copy of such Book that is damaged, destroyed, deteriorating, lost, or stolen, or if the existing format in which the Book is stored has become obsolete.”<sup>31</sup> This right, however, is triggered only if the library “has, after a reasonable effort, determined that an unused replacement cannot be obtained at a fair price.”<sup>32</sup> Moreover, while the authorization for Google to use the digital books is very broad,<sup>33</sup> and covers both Display Uses and Non-Display Uses, the ability of the FP libraries to do research on the LDCs is extremely narrow. Only a category of researchers called “qualified users,” upon notice to the Registry, may conduct what the Settlement calls “non-consumptive” (and non-competitive<sup>34</sup>) research on the digital copies. “Qualified users” are roughly comparable to researchers, affiliated with institutions that manage various libraries, who have positively passed a cumbersome authorization process and act primarily on non-commercial basis.<sup>35</sup> The “non-consumptive research,” on the other hand, is “computational analysis ... performed on one or more

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<sup>29</sup> *Id.* at § 7.2 (e)(i) (the libraries may seek another provider of search services only if Google fails to provide the searching services in five years from the extended Notice Commencement Date *See Id.* at § 7.2(e)(ii)).

<sup>30</sup> *Id.* at §§ 7.2 (a)(ii)-(iii).

<sup>31</sup> *Id.* at §7.2(b)(iii)(1).

<sup>32</sup> *Id.*

<sup>33</sup> *Id.* at §2.2.

<sup>34</sup> *Id.* at §7.2(d)(ix) (“Use of data extracted from specific Books within the Research Corpus to provide services to the public or a third party that compete with services offered by the Rights holder of those Books or by Google is prohibited.”).

<sup>35</sup> *See Id.* at § 1.123 (full definitional category); *see also, Id.* at §§ 7.2(d)(xi)(2)-(3) (regarding the research agenda).

Books, but not research in which a researcher reads or displays substantial portions of a Book to understand the intellectual content presented within the Book.”<sup>36</sup>

It is like analyzing pieces of a mosaic without looking at the picture they represent. Linguistic analysis and automated translation are two of examples here.<sup>37</sup> Finally, researchers of the higher education institutions hosting the library may receive access to the digital copies and read them, print, download, or use otherwise for “Personal Scholarly Use and Classroom Use.”<sup>38</sup> But the boundaries of such a right are extremely tight again. First, the use is restricted to five pages of a given book. Second, commercially available books are excluded. And third, the right covers only “(1) personal scholarly use (for each Book, no more than once per person per term) and (2) classroom use in such Higher Education Institution that is limited to the instructors and students in the class and for the term in which the class is offered.”<sup>39</sup> Certainly no university (or equivalent) library would ever disable access to its collection for teachers and researches to any comparable degree.

#### B. More on What the Reading Public Gets in Return

The Settlement allows for three so-called “Access Uses” — transactional models of making the whole books available to readers: Consumer Purchase, Institutional Subscriptions and Public Access Service.<sup>40</sup>

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<sup>36</sup> *Id.* at §1.93.

<sup>37</sup> As the Settlement stipulates, “No Person may, in the course of conducting, reviewing or challenging the results of, Non-Consumptive Research use Protected material through the Research Corpus for purposes that involve reading portions of a Book to understand the intellectual content presented within a Book; It is permissible, however, for Qualified Users to read Protected material within the Research Corpus as reasonably necessary to carry out Non-Consumptive Research, and for reviewers or challengers of the results of Non-Consumptive Research to read Protected material as reasonably necessary to analyze or verify such results.” *Id.* at §7.2(d)(vi) (1)-(2).

<sup>38</sup> *Id.* at §7.2(b)(vii).

<sup>39</sup> *Id.*

<sup>40</sup> *Id.* at §1.1. Other uses: Snippet Displays, Front Matter Displays, and Previews, while also covered by the Settlement, are less useful to readers, and are therefore of much lower commercial value to parties to the Settlement.

Institutional Subscriptions are to achieve “revenue at market rates for each Book and license,” on the one hand, and “the realization of broad access to the Books by the public, including institutions of higher education,” on the other.<sup>41</sup> A closer look at the Settlement’s more detailed provisions, however, makes it clear that only the first of the two principles is to be taken seriously. For one thing, the fees are based on (what the Settlement calls a “parameter” of) “pricing of similar products and services available from third parties.”<sup>42</sup> Moreover, when determining the (first) pricing strategy, Google must only take into account “then-current prices for comparable products and services, surveys of potential subscribers, and other methods for collecting data and market assessment.”<sup>43</sup> It is impossible to conclude from the Settlement which “products and services” are comparable. It is unlikely that databases of professional periodicals are contemplated, since periodicals (excluded from the Settlement) are not very similar “products” to books. A much better candidate for setting the “then-current prices for comparable products and services” is the aggregated value of all books in the Google database, minus costs of printing and paper, plus costs of scanning. Subscriptions based on such a criterion would be obviously unbearable for any library, and Google would have to moderate it in order to launch the service from the ground. But the only ceiling predictable on the basis of the Settlement alone are financial capabilities of the libraries, not a “broad access” principle. The Settlement envisions no practical mechanism for realizing the latter. Moreover, none of the parties to the Settlement have an incentive to follow the principle of the “broad access.” Subscribers do not have a say on the pricing strategy at all either.<sup>44</sup> Because of these considerations, subscription fees would practically follow the logics determining prices for individual “Consumer

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<sup>41</sup> *Id.* at §4.1(a)(i).

<sup>42</sup> *Id.* at §4.1(a)(ii). The other three “parameters” are: “the scope of Books available, the quality of the scan and the features offered as part of the Institutional Subscription” *Id.* at § 4.1(a)(ii). None of these three, however, have a significant bearing on the principles of maximizing/minimizing the fees.

<sup>43</sup> *Id.* at §41.(a)(vii).

<sup>44</sup> Pricing strategies are to be proposed by Google and approved by the Registry. *Id.* at 4.1(a)(vi).

Purchases,” of maximizing profits instead of balancing those profits with the principle of providing broad access to the books. In the context of the “Consumer Purchases,” the Settlement empowers Google to design a “reasonable”<sup>45</sup> mechanism (an algorithm) for setting prices for this service. To achieve the reasonableness Google is to “find the optimal ... price for each such Book in order to maximize revenues for the Rightsholder.”<sup>46</sup> The “reasonableness” of the algorithm is to be validated by the Registry’s experts only, outside external scrutiny or any publicity.<sup>47</sup>

On these financial terms the reading public would be entitled to a very restricted scope of use rights. Overall, one of the least vexatious limitations is that books may be incomplete.<sup>48</sup> Others are more annoying. To understand fully how, we have to recapitulate what has been said up to this point about the relationship between the libraries and the parties to the Settlement.

The deal empowers Google to scan library books, but the libraries are, essentially, refused the right to use the scans unless they decide to buy the scans back through subscription fees. To be more specific: “A Fully Participating Library may not read, print, download or otherwise use a Book or Insert ... if such use is available through the Institutional

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<sup>45</sup> “Google will develop the Pricing Algorithm and analyze sales data to ensure the reasonableness of the Pricing Algorithm” *Id.* at 4.2(c)(ii)(2).

<sup>46</sup> *Id.* at §4.2(b)(i)(2). This wording is used in the context of a “controlled price,” one of two mechanisms to set prices for consumer purchases (the other one is a “specified price” determined by the rights-holders).

<sup>47</sup> *Id.* at §4.2(c)(ii)(3).

<sup>48</sup> As the American Library Association (ALA) remarked in its comment on the proposed settlement, “Because the Settlement allows the rights-holder of a work contained within another rights-holder’s book to exercise his rights under the Settlement independently, a book in the ISD may lack important parts of the printed book. A book in the ISD might be missing an essay, poem, short story, foreword, chart or table that appears in the printed version. Similarly, because the Settlement does not apply to pictorial works, Google will black out photographs and illustrations with a different rights-holder from the book’s rights-holder.” Library Association Comments on the Proposed Settlement at 4, *The Authors Guild*, No. 05-8136 (S.D.N.Y. Sept. 20, 2005) available at <http://www.scribd.com/doc/14955716/ALA-ACRL-ARL-Google-Book-Settlement-Brief>.

Subscription and the Institutional Subscription service is offered or is available to the Fully Participating Library.”<sup>49</sup> But even after buying the subscription the library cannot offer the reading public what even the most restrictive proprietary commercial databases do: the ability of unencumbered viewing, copying/pasting and printing pages in accordance with Fair Use. The Settlement makes it clear that “the user will not be able to select, copy and paste more than four (4) pages of the content of a Display Book with a single copy/paste command. Printing will be on a page-by-page basis or a page range basis, but the user will not be able to select a page range that is greater than twenty (20) pages with one print command for printing.”<sup>50</sup> The same exceptional restrictions apply to consumer purchases.<sup>51</sup>

These curtailments of Fair Use reformulate Lessig’s idea that “code is law.” Under the Settlement Agreement, “settlement is code is law.” Yet the mechanism remains the same: use of the Digital Rights Management Systems (DRMs) to reengineer the architecture of rights as devised by the legislation.<sup>52</sup> In particular, through the provisions quoted above, the Settlement essentially disables Fair Use “for nonprofit educational purposes,” as otherwise allowed by 17 U.S.C. 107.<sup>53</sup>

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<sup>49</sup> Settlement Agreement 2009, *supra* note 2, at §7.2(b)(vii).

<sup>50</sup> *Id.* at §4.1(d).

<sup>51</sup> *Id.* at §4.2(a).

<sup>52</sup> As in any other context when they are applied, the DRMs raise serious privacy issues both when it comes to libraries (which are to limit access to “appropriate individuals within the subscriber institution” Settlement Agreement 2009, *supra* note 2, at § 4.1(e), and to consumer purchasers, Settlement Agreement 2009, *supra* note 2, at § 4.2(a), Attachment D § 3. *See also*, Library Association Comments on the Proposed Settlement, 11-14, *The Authors Guild*, No. 05-8136 (S.D.N.Y. Sept. 20, 2005) available at <http://www.scribd.com/doc/14955716/ALA-ACRL-ARL-Google-Book-Settlement-Brief>; Peter Brantley Posting to UC Berkley Library Blog, <http://blogs.lib.berkeley.edu/shimenawa.php/2009/04/15/everyone-a-user-account> (April 15, 2009).

<sup>53</sup> This Fair Use provision provides:

§107. Limitations on Exclusive Rights: Fair Use

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include –

The third type of the Access Use provided for by the Settlement, along with Consumer Purchase and Institutional Subscriptions, is called “Public Access Service,” which grants the public free access to the Google database through libraries.<sup>54</sup> It sounds good, but suspicions about the details are on the point here. The “Public Access Service” is generally to be restricted to one computer terminal in a public library,<sup>55</sup> one computer terminal for every four thousand full-time students in not-for-profit higher education institutions that qualify as Associate’s Colleges pursuant to the Carnegie Classification, and one computer terminal for every ten thousand full-time students in not-for-profit higher education institutions that do not qualify as Associate’s Colleges.<sup>56</sup> It is therefore a marketing trick—“the first one for free”—to encourage libraries to buy the Institutional Subscription, as the demand will most likely seriously surpass what the one terminal can deliver. This is because readers would not be able to copy or paste the books. Therefore, enabling one person to read the whole book would be tantamount to disabling the terminal for anyone else for one, two, or more days, depending on how fast the person reads and how long the book is. This problem may be alleviated, but for a price. Parties to the Settlement have made it clear that they want to profit from printing in the “Public Access

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- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
  - (2) the nature of the copyrighted work
  - (3) the amount and substantiability of the portion used in relation to the copyrighted work as a whole; and
  - (4) the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

*17 U.S.C. § 107 (2009).*

<sup>54</sup> If Google feels like being so generous, this remains at Google’s discretion. Settlement Agreement 2009, *supra* note 2, at §4.8(a)(i). Furthermore, “[t]he Registry and Google may agree that Google may make available the Public Access Service to one or more Public Libraries or not-for-profit Higher Education Institutions either for free or for an annual fee, in addition to the Public Access Service.” *Id.* at §4.8(a)(iii).

<sup>55</sup> Yet, according to the Settlement 2009, “the Registry may authorize one or more additional terminals.” *Id.* at §4.8(a)(i)(3).

<sup>56</sup> *Id.* at §4.8(a)(i).

Service” model: it is required that a per-page fee printing would be the only mode available, with revenues going to the parties of the Settlement.<sup>57</sup>

#### IV TWO SCENARIOS

When Google first started its library project,<sup>58</sup> the scheme seemed to produce no losers, although no party significantly benefited, either. Libraries were having their collections digitized (almost) without incurring concomitant costs; Google was connecting readers with book vendors, and profited from advertisement revenues; readers and rights holders benefited from easier access to books.

On one point the Settlement makes it even better. Its brilliant idea of the “default license” brings back to readers books that would not be (so easily) available otherwise. On the other hand, libraries, researchers, and the reading public, none of which negotiated the deal itself, are required to piggyback Google and the rights holders.

The question, though, is to what extent the Settlement can force the libraries to assume this role. As the Settlement acknowledges reluctantly, libraries should not, as third parties, be bound by any of the abovementioned obligations and restrictions.<sup>59</sup> But some of them may feel obliged to follow the Settlement if it is confirmed by the judge,

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<sup>57</sup> *Id.* at §4.8(a)(ii). The same provision proclaims that the fee is to be reasonable, yet the Registry is to be the only body whose perspective is to determine what “reasonable” means in this context. It is hardly predictable that the meaning would be any different than patently subjective.

<sup>58</sup> See generally, Edward Wyatt, *New Google Service May Strain Old Ties in Bookselling*, N.Y. TIMES, Oct 8, 2004, available at <http://www.nytimes.com/2004/10/08/technology/08book.html?scp=14&sq=edward+wyatt&st=nyt>; John Markoff and Edward Wyatt, *Google Is Adding Major Libraries to Its Database*, N.Y. TIMES, Dec 14, 2004, available at <http://www.nytimes.com/2004/12/14/technology/14google.html?scp=7&sq=edward+wyatt&st=nyt>.

<sup>59</sup> Settlement Agreement 2009, *supra* note 2, at §7.6 (“Notwithstanding anything to the contrary in this Settlement Agreement, no Fully Participating Library, Cooperating Library or Public Domain Library is bound by any provision of this Settlement Agreement.”)

assuming that the direct attempt of the parties to impose obligations (curtailments of rights) on third parties becomes validated when judicially acknowledged. This assumption, though, would be as rational as it should be erroneous.

Certainly the libraries receiving access to the Google database (those at the end of “What the Reading Public receives”) will be bound by Google’s offers, whether or not expressed in the Settlement. With or without the Settlement, economic asymmetries seriously hinder the position of libraries in purchasing negotiations. It would be no stronger than it is in negotiations with Elsevier.<sup>60</sup>

But the picture is different regarding the libraries contributing their collections to the Google Library Project. On the day it was submitted it to the New York court, the Settlement clearly deviated from the contracts Google had signed with those libraries. The agreement between Google and the University of Michigan, in force until mid-May 2009, makes this difference clear.<sup>61</sup> The deal allowed Google to use scanned Michigan books for searching services only.<sup>62</sup> In other words, it did not cover selling access to the digital copies at all. Moreover, it was explicitly required that Google would make the digitized works available “to the University of Michigan for preservation, archival or other purposes of its choosing.”<sup>63</sup> These latter provisions obviously diverge from the limitations of the library use and Fair Use devised by the Settlement for Fully Participating Libraries (Michigan is a leading FP Library). They also clearly differ from the copyright compliant environment preferred by the Authors Guild, et al. Yet, by not suing the University of Michigan, the Guild acknowledged that the library, abiding by its previous agreement with Google, did not breach copyrights the plaintiffs decided to stand up for when suing Google.

Because the previous agreements between participating libraries and

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<sup>60</sup> See generally Elsevier, <http://www.elsevier.com>.

<sup>61</sup> UM-Google-Cooperative-Agreement (June 15, 2005), <http://www.lib.umich.edu/mdp/um-google-cooperative-agreement.pdf>.

<sup>62</sup> UM-Google-Cooperative-Agreement, *supra* note 61, at 4.5.1 in conj. with 1.20.

<sup>63</sup> *Id.* at §4 (outlining Google’s obligations generally); *Id.* at §§4.4.1, 4.4.2 (detailing more specifically Google’s obligations).

Google did not cover the scheme now embraced by the Settlement, they must have been renegotiated. In this process, the Settlement was considered an opening offer from Google, whose position was crippled by the substantial bargaining power of the libraries. It was up to them to decide whether the “Giant from Mountain View” would be allowed to use millions of books already scanned for any purpose other than search services. Exercising their power, the libraries could have pressed toward one of two extreme scenarios. The first was to pursue individual interests at the expense of other libraries, while the other was to protect the interests of other libraries and the broad reading public alike.

Quite naturally, the first of these two scenarios was favored by the Settlement and the rights-holders, and the one that Google pursued. Dan Clancy, the engineering manager of Google Book Search, sketched the Google’s position in this respect emphatically. Clancy, responding to a blog post that described, with acute precision, what the Settlement had for libraries,<sup>64</sup> wrote:

“For our partners where we are scanning a large portion of the library, the subsidy is such that these institutions will likely receive a free version of the institutional subscription. This means that for some universities, Google is absorbing the cost of digitizing their entire collection or a large portion of their collection, and in return their students, faculty, staff, visitors and other members of their community will be able to obtain broad electronic access to a large majority of these books as well as access to books scanned from other libraries. ... Perhaps if libraries were for-profit corporations a different deal might have been desirable: one which put money into their pockets and did less public good.”<sup>65</sup>

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<sup>64</sup> See, Posting on Open Content Alliance, <http://www.opencontentalliance.org/2008/12/06/a-raw-deal-for-libraries/> (Dec. 6, 2008, 09:09 EST) (Clancy’s response was apparently provoked by the following piece of the post: “Given that Google Book Search could not have gotten off the ground without the cooperation of various university libraries, it is particularly disheartening that the proposed settlement treats them with such an iron fist at the same time as it expects them to foot much of the bill through subscriptions. It will be interesting to see how many libraries continue as partners, given Google’s bait-and-switch.”).

<sup>65</sup> Indeed, “the Registry and Google may agree that Google may make available the Public Access Service to one or more Public Libraries or not-for-profit Higher

What Clancy did not mention is that, contrary to the initial agreement between the University of Michigan and Google, the Settlement reserves all the rights for one party, and all the obligations for the other. The subsidy is, therefore, a sweetener on an otherwise bitter pill. To paraphrase Clancy, it is a little money put into pockets of some chosen libraries for making their books available to Google, at the expense of other libraries bearing the full subscription costs. A serious confusion between “Google’s good” and the public good seems to determine this rhetoric.

“Google’s good” is driven by a different conception than the public good. To achieve it, participating libraries would have to require free access to the Google Library system through all (non-for-profit) libraries and educational institutions and insist on unrestricted Fair Use of the Google Database by patrons.

It should be noted that rights-holders would not suffer from such a scheme. To realize why, it is enough to think of what a library would do with a dollar saved on access to the Google database. Certainly, because it is a library, it would spend it on books.<sup>66</sup> Simply, with or without free access to the Google system, libraries would still spend roughly the same amounts to buy books.<sup>67</sup> However, while the libraries would likely buy new books in the first place, the Settlement targets books published before September 2009. The difference is that in the latter scenario many less books would be available to patrons.

After these adjustments, the rights-holders and Google would capitalize on consumer purchases. For those who can afford it, reading a book from home after paying few dollars would be a much more attractive option than spending time on a trip to the nearest public library. Libraries would remain more attractive for those who cannot afford buying digital or paper books. Undoubtedly, students and researchers

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Education Institutions either for free or for an annual fee, in addition to the Public Access Service” (Settlement Agreement 2009, *supra* note 2, §4.8(a)(iii)).

<sup>66</sup> After discounting the growing costs of subscriptions for professional periodicals.

<sup>67</sup> Not necessarily the same books, though. The libraries would buy new books in the first place, while the Settlement targets books published before September 2009.

would benefit the most from the free library access, and therefore the tremendous negative educational externalities produced by the Settlement would be eliminated. Google would certainly earn less, but it would fulfill its ambitious corporate mission of organizing the world's information and make it universally accessible and useful.

This move would attract foreign libraries as well, such as the French *Bibliothèque Nationale*, and others who are interested in contributing their collections to the project on fair and just terms.<sup>68</sup> Google would also be able to respond appropriately to those who, like the Federation of European Publishers, remind it that “freedom of publication in our society is in fact limited if books are not made available to the largest possible public through the widest possible means of distribution.”<sup>69</sup>

This scenario requires hard negotiations from the contributing libraries. But first of all, it necessitates firm commitment to the promotion of “the Progress of Science and useful Arts” and to what Robert Darnton calls “the twenty-first-century equivalent of the Library of Alexandria.”<sup>70</sup> It also requires understanding that, as Peter Brantely states, “this is not an economic matter; it is a social foundation. A library is a refuge; you can provide solace in that refuge, and a promise for a

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<sup>68</sup> The matter is obviously much more complex. First, copyright systems have been poorly harmonized internationally. In particular, the vehicle of the default license cannot be used in other jurisdictions. European law, for example, does not allow to circumvent the author’s “exclusive right to authorize or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form” (quotation from Art. 2 of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, OJ 2001 L 167/10). Second, resistance of local booksellers, the obvious category of losers in the deal between Google and copyright holders, may be more palpable in other jurisdictions (for a taste: *EBF statement on the Association of American Publishers, Authors' Guild, Google settlement agreement*, Nov. 12, 2008, available from <http://www.ebf-eu.org/papers.html>). Also, it may be predicted that libraries outside the U.S. would be interested in actually doing the scanning (which is the case of the *Bibliothèque nationale de France*). This would have an impact on, among others, the distribution of operational costs of scanning.

<sup>69</sup> Press Release, Federation of European Publishers, Statement on the AAP-AG-Google Settlement (Nov. 4, 2008), <http://www.fep-fee.be>.

<sup>70</sup> Robert Darnton, *Google & the Future of Books*, *New York Review of Books*, 56 N.Y. REVIEW OF BOOKS 2, Feb. 12, 2009, available at <http://www.nybooks.com>.

different and better kind of future. It is morally incumbent upon you to do so.”<sup>71</sup>

## V

### AMENDED LIBRARY AGREEMENTS AND THE SETTLEMENT

Quite predictably, the first of the Amended Agreements between the Regents of the University of Michigan and Google, signed on May 19, 2009, is located somewhere between the two scenarios sketched in the previous section.<sup>72</sup> As promised by Clancy, the University of Michigan can enjoy (with some further restrictions) a gratuitous version of the Institutional Subscription for 25 years after Google launches its service commercially.<sup>73</sup> Additionally, the library will receive access to improved digital copies of the titles from its collection once Google digitizes a better-preserved book from another library.<sup>74</sup>

More importantly, the Amended Agreement specifies or lifts certain restrictions of library rights as devised by the Settlement. Google is to identify the location of each part redacted as a consequence of an exemption from the default license<sup>75</sup>. Moreover, the University of Michigan obtains broad latitude in using Library Digital Copies (“LDC”) of its books scanned by Google. It can contribute them, for varying services, to inter-library projects, like HathiTrust, without having to

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<sup>71</sup> Posting of Peter Brantely to UC Berkely Blog, <http://blogs.lib.berkeley.edu/shimenawa.php/2008/11/04/waking-up-to-books-in-richmond> (Nov. 4, 2008) (The author referred only to the parties to the Settlement as “You,” clearly overlooking the “Fully Participating Libraries”).

<sup>72</sup> The “Non-Settlement Digital Copies” books (public domain books in the first place) will be left outside the discussion here.

<sup>73</sup> Amendment to Cooperative Agreement (furthermore: Amendment Agreement), available at <http://www.lib.umich.edu/files/services/mdp/Amendment-to-Cooperative-Agreement.pdf>, at 1. See also §4.4.8(a) of the UM-Google-Cooperative-Agreement, *supra* note 61, as modified by the Amendment Agreement. See also modified 4.4.8(c) (Limited Subscription in Lieu of Discount).

<sup>74</sup> UM-Google-Cooperative-Agreement, *supra* note 61, at §4.4.3(b), as modified by the Amendment Agreement, *supra* note 71, at 17.

<sup>75</sup> UM-Google-Cooperative-Agreement, *supra* note 61, at §4.4.5, as modified by the Amendment Agreement, *supra* note 71, at 19.

strike additional agreements with Google or the Registry.<sup>76</sup> The libraries that receive access to Michigan’s LDCs are to sign a contract with Google, but the contract is limited to forbidding further dissemination (either through redistribution or loopholes in security systems) and to limiting the authorization of the receiving libraries to (at the most) the University of Michigan’s scope of uses.<sup>77</sup> Pursuant to Collective Terms (“CT”) attached to the Amended Agreement, Google will disclose a “searchable, on-line database that will enable the public to determine which Library Works are currently accessible through the Accommodated Service” and make public its assessment whether a work is in the public domain.<sup>78</sup> As another disclosure obligation, contributing libraries would be informed about Google’s progress in digitizing their collections<sup>79</sup> and its pricing strategies.<sup>80</sup> Important to the pricing issue is that any FP or Cooperating Library may annually request a review of whether the prices for Institutional Subscriptions comply with the Settlement’s principles of revenue at market rates and the realization of broad access to the Books. The review would be conducted by “an independent, qualified third party (independence and qualification determined in good faith by the Initiating Libraries) designated by the Initiating Libraries ... subject to approval by Google (which approval shall not be unreasonably withheld).”<sup>81</sup> Google would pay fees and costs of the reviewer, up to pricing caps set by the Collective Terms, or would donate similar sums to a charity in years when no entitled library requests the review.<sup>82</sup> On the basis of the review report, the library initiating the review may bring the case to arbitration to determine conclusively whether Google’s subscription prices comply with the pricing objectives.<sup>83</sup>

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<sup>76</sup> UM-Google-Cooperative-Agreement, *supra* note 61, at §4.4.2, as modified by the Amendment Agreement, *supra* note 71, at 16.

<sup>77</sup> *Id.*

<sup>78</sup> Attachment to the Amendment Agreement, *supra* note 71, at 6(c).

<sup>79</sup> *Id.* at 6(b).

<sup>80</sup> *Id.* at 10(d).

<sup>81</sup> *Id.* at 3(c)(1).

<sup>82</sup> *Id.*

<sup>83</sup> *Id.* at 3(c)(2).

The entitlement to question pricing strategies is restricted to certain periods and certain categories of libraries. It is entrusted with the libraries contributing their books to the database (often, like the University of Michigan, exempted from the fees) instead of those libraries that incur the financial burden and thus are primarily motivated to challenge the pricing scheme. This may seem unfair, but Google certainly is motivated to limit challengeability of its pricing scheme, considering rather unavoidable vagueness of the pricing principles. Cooperating Libraries (those merely opening their collections to the scheme) broaden the entitled group significantly and seriously strengthen the pressure on Google. The Amended Agreement, therefore, does introduce a practical instrument of turning the Settlement's principle of uncontrolled subscription fees into a principle of rational fees. Also, it extends free library access (yet only in one respect) by lifting the requirement of the per-page fee printing in the Public Access Service model.<sup>84</sup>

The single most important element, in no way rectified by the Amended Agreement, concerns the patrons' rights of use. More specifically, despite labeling the rights as a "First Class Access," the Agreement upholds all the use limitations imposed by the Settlement.<sup>85</sup> It seems that, quite successfully pressing for their (individual and collective) rights, the libraries tend to be less concerned with the interests of the fundamental (yet unrepresented directly in either negotiations) category of library patrons.

## VI CONCLUSION

Terms of the Settlement treat libraries much less favorably than the Google's direct agreement with the University of Michigan. This effect is obvious, considering that the libraries had no chance to negotiate the Settlement. The plaintiffs did not sue them, apparently realizing that chances to win the case against libraries participating in the Google Library Project were extremely tenuous. Yet, by this inaction, the plaintiffs also implicitly admitted that the libraries had infringed on no

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<sup>84</sup> *Id.* at 9(b).

<sup>85</sup> *Id.* at 3(b).

copyrights and thus had caused no damage whatsoever to the rights-holders.

As third parties, the libraries should only benefit from the Settlement and be free to press Google in direct negotiations to alter its position expressed in the Settlement (like the University of Michigan did). The Settlement acknowledges this by recognizing the libraries as “Third-Party Beneficiaries.”<sup>86</sup> Such a move means unenforceability of the Settlement’s library-related obligations. At the same time, however, a divergence from the Settlement would cause Google to fall afoul of its commitments to the rights-holders. Moreover, according to the Settlement, the Registry is authorized to admit participating (FP or Contributing) libraries to the scheme, by signing with them so called Library-Registry Agreements. The Registry is barred by the constitution of the agreement from enabling a library to participate in the scheme if the library expresses “its intent not to comply with the obligations imposed on a Fully Participating Library or a Cooperating Library by this Settlement Agreement or the applicable Library-Registry Agreement.”<sup>87</sup>

It is less important in this context that the rationality of such a Library-Registry Agreement is questionable as long as the library follows its agreements with Google, and Google complies with its default license. More importantly, the ruse used by the Settlement parties to “lock in” the libraries does attempt to directly impose obligations on third parties. This idea, to which Google sticks to consistently, is not only incongruent with the constitution of the Settlement, but also has major ramifications for the Amended Agreement between the University of Michigan and Google. The deal explicitly says that: “In the event that compliance with the terms of this Amendment or the Agreement would cause Google to breach the Settlement Agreement or would cause the Institution to breach its Library-Registry (Fully Participating) Agreement, then such compliance with this Amendment or the Agreement will be excused ... to the extent that such compliance would result in such a breach.”<sup>88</sup> On the other hand, the Settlement allows Fully Participating Libraries or Cooperating Libraries to enter into separate agreements with Google, and even

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<sup>86</sup> Settlement Agreement 2009, *supra* note 2, at §7.2(f).

<sup>87</sup> *Id.* at §7.1.

<sup>88</sup> Amendment UM-Google-Cooperative-Agreement, *supra* note 71, at 2.

derogate provisions of the former, “provided, however, that no such amendment or other agreement will permit any Fully Participating Library to make any uses of its LDC that are prohibited by its Library-Registry (Fully Participating) Agreement or by this Settlement Agreement.”<sup>89</sup>

Therefore both Google and the University of Michigan must comply with the obligations put on them by the Settlement and by its concomitant agreements, at least when it comes to the use of the scanned books. In those aspects the term “compliance will be excused” written into the deal between Google and the University of Michigan translates into “this Agreement is breachable,” and all the concessions the University of Michigan received in bilateral negotiations with Google, so far as they diverge from the Settlement, are inherently vulnerable. Parties to the Settlement may tolerate them since both Google and the Registry are certainly interested in smooth cooperation with the libraries, but as long as the Settlement includes provisions referring to participating libraries, the default license would put obligations on them as well. This undermines every reasonable concession gained in direct negotiations with Google and pushes the whole scheme into the direction of “putting little money into pockets of some libraries.” It sways the scheme towards the scenario detriment to the libraries, researchers, and the reading public. This “latent defect” stems directly from one obvious, fact disregarded by the Settlement: that the libraries cannot be bound by the settlement concluded between third parties like Google or the Authors Guild, unless they had been sued as well. And this defect will persist as long as the Settlement contains provisions regarding libraries.

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<sup>89</sup> Settlement Agreement 2009, *supra* note 2, at §7.2(f).

**THE CONFLICT BETWEEN GOOGLE AND THE BOOK**  
**PUBLISHERS SHOULD NOT BE SETTLED BY A**  
**UNIVERSALLY BINDING AGREEMENT IN A CLASS**  
**ACTION CASE**

by

Ad van Loon\*

Google's initiative to digitize the world's cultural heritage laid down in books is of major importance to society as a whole.<sup>1</sup> First and foremost, it has the potential of safeguarding and promoting access to cultural expressions, which might otherwise end up in oblivion. Digitized copies, in combination with a powerful search engine, not only make it possible to find publications which may turn out to be of interest to persons looking for certain content (they may come across publications, the existence of which they might never have suspected in the hard copy world), but it also makes it possible to provide instant access upon an individual demand. These advantages provide major benefits to society as a whole, and their importance should not be underestimated. It is a first major step towards collecting and making easily accessible the world's entire cultural heritage, since, given Google's ambitions, it is unlikely that their initiative will stay limited to the digitization of books.<sup>2</sup>

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<sup>1</sup> The project aims to digitize millions of books and in the process provide access to books that might otherwise be forgotten. See Eric Benson, *The Google Library Project Class Action Settlement*, 2009 EMERGING ISSUES 4150 (2009) (describing the Google library project).

<sup>2</sup> Google has evidenced this intention to branch out beyond books by beginning an initiative to digitize old newspapers. See Punit Soni, *Bringing history online, one newspaper at a time*, Sept. 8, 2008, <http://googleblog.blogspot.com/2008/09/bringing->

It is very likely that Google will expand their efforts by creating databases of all kinds of music, video, film and television productions in the near future. The class action settlement is therefore likely to set a precedent for future new initiatives in related areas. Thus, it is very important that the approach is right from the start.

## I THE IMPORTANCE OF GETTING IT RIGHT FROM THE START

Given the global impact of the Google Books project and the major public interests involved, the decision on the conditions under which the project can be realized should not be determined by a small number of private interest groups, primarily copyright interests. Clearly, given the public interest involved, a balance has to be struck between a number of other different interests, which are equally important to protect.

This article is partly dissenting from and partly concurring with the opinions expressed by my colleagues at the Institute for Information Law and Policy at New York Law School,<sup>3</sup> (James Grimmelmann c.s.), who wrote a ‘Brief of Amicus Curiae’ before the U.S. District Court for the Southern District of New York, which is the court dealing with the proposed Settlement Agreement.<sup>4</sup> I dissent from their opinions, which I find too legalistic and one-sided. In their legal analysis, they ignore important other interests which are worthwhile to protect, such as the major potential benefits of the Google initiative for the society at large and for innovation. At the same time, I concur with their opinion that the proposed Settlement Agreement threatens the public interest by creating a dangerous concentration of power in the Book Rights Registry;<sup>5</sup> but in many cases where they criticize Google, it is really the Registry which

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history-online-one-newspaper.html (announcing on Google’s blog page Google’s initiative to digitize newspapers).

<sup>3</sup> New York Law School Institute for Information Law and Policy, <http://www.nyls.edu/iilp/> (last visited Feb. 9, 2010).

<sup>4</sup> Brief of Amicus Curiae Institute for Information Law and Policy, The Authors Guild, Inc. et al. v. Google Inc., (S.D.N.Y. Sept. 2, 2009) (No. 05-CV-8136), *available at* [http://www.nyls.edu/user\\_files/1/3/4/30/58/Public%20Index%20Amicus%20Brief.pdf](http://www.nyls.edu/user_files/1/3/4/30/58/Public%20Index%20Amicus%20Brief.pdf)

<sup>5</sup> *See id* at 8 (describing how power is dangerously concentrated in the Book Rights Registry).

will force Google to the behaviour which they complain about.

Moreover, this article concurs with the analysis made by Pamela Samuelson, a well-known expert in the area of copyright law whose work I admire, in her forthcoming publication.<sup>6</sup>

From a strictly legal point of view, Google should indeed have acquired prior permission from the copyright owners to start scanning books protected under copyright law.<sup>7</sup> However, those with experience in the content business know that copyright owners tend to be very conservative: they stick too long to business models, which have become archaic and, in many cases, they try to block innovation.<sup>8</sup> They will only move when challenged. They are not used to licensing their rights in the interest of and according to the wishes of the consumers; instead, they tend to push and impose their own business models and their own terms of service (even in cases where consumers don't want those kind of services anymore).<sup>9</sup> This is the typical behaviour of market participants that can use their dominant positions (based on the exclusive rights which have been granted to them by the legislator).<sup>10</sup> They are in a

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<sup>6</sup> Pamela Samuelson, *Google Book Search and the Future of Books in Cyberspace*, SSRN, Jan. 13, 2010, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1535067#%23](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1535067#%23).

<sup>7</sup> See 17 U.S.C. § 106 (2009) (delineating “exclusive rights in copyrighted works” for authors in the U.S.); see also e.g., Barry Sookman, *Editions du Seuil v Google: what reasons did the French court give for holding Google liable for copyright infringement?* Jan. 11, 2010, <http://www.barrysookman.com/2010/01/11/editions-du-seuil-v-google-inc-what-reasons-did-the-french-court-give-in-finding-google-liable/> (describing the recent decision of the Paris “Tribunal de Grande Instance” on the implications of Google’s library project in France); see also Berne Convention for the Protection of Literary and Artistic Works art. 9, Sept. 28, 1979.

<sup>8</sup> The monopoly afforded to copyright owners gives them the tools to dictate how and in what way their content will be exploited. This type of behavior is typical in one-sided monopolistic type contracts. See S.B. MARSH & J. SOULSBY, *BUSINESS LAW* 141 (Nelson Thomes 2002) (1995) (stating that an obvious inequality results when one party to a contract enjoys monopolistic powers. Typically if one wishes to acquire goods that the monopolist supplies, he cannot negotiate terms to suit himself. He must take the terms that the monopolist offers, or do without.)

<sup>9</sup> See *id.*

<sup>10</sup> Copyright owners can prevent others from using their works in many instances. See 17 U.S.C. § 106 (2009) (granting copyright owners broad rights with respect to their

position to determine to an appreciable extent prices and other delivery conditions independently of the needs or wishes of users.

Unlike those who own or control copyrights, Google listens to consumers and is developing services that meet their demands; moreover, they do not seem to be unwilling to compensate the rights owners financially.<sup>11</sup> However, as those who have had the experience will be able to confirm, it is very difficult to negotiate with persons or organisations that have an exclusive right to permit or to prohibit the use of those rights, because they tend to dictate their terms of use one-sidedly.<sup>12</sup> This is especially awkward in cases where content is used in which many different rights components (rights of song writers, script writers, music composers, directors, actors, etc.) are combined, such as in audiovisual productions (movies; television productions). In such cases, there will be many exclusive right owners who will all have to give permission, which means that if one of them (even a person who has an exclusive right to the smallest possible element used in such a production) refuses to grant permission for a certain use, it will not be possible to use the production at all (even if all the other rightsholders have given permission). This places the small rights owner in a position of such a significant market power that allows him the ability to exploit this position financially by, for example, demanding a form of compensation which is unreasonable given the use made of his right.<sup>13</sup>

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works, which allow the owners to prevent exploitation of their works that might be objectionable).

<sup>11</sup> See Amended Settlement Agreement, *The Authors Guild, Inc. et al. v. Google Inc.*, CIV. NO: 05-CV-8136 (S.D.N.Y. Sept. 2, 2009).

<sup>12</sup> See Marsh, *supra* note 8.

<sup>13</sup> See Michael A. Heller, *The Tragedy of the Anticommons: Property in the transiktikon from Max to Markets*, 111 HARV. L. REV. 621 (1998).

## II ARGUMENTS AGAINST THE PRESENT SETTLEMENT AGREEMENT

The present settlement agreement is not right, for the following reasons:

- It creates a cartel of publishers that can determine how Google is to run its business; it even dictates Google's pricing policies. Under the agreement, a new dominant party of copyright owners is created in the form of the Book Rights Registry;<sup>14</sup>
- An Unclaimed Works Fiduciary will have the right to act as a fiduciary for orphan works.<sup>15</sup> Google will have to pay a fee for its use of orphan works; a fee which will never be returned; not even if the rightsholders to orphan works have not been found after a long period of time.<sup>16</sup> Those working in the industry know all too well that in the vast majority of cases, monies which are reserved for orphan works will never be claimed by anyone. Google will indeed have the obligation to come to terms with owners of orphan works whenever they become known, but no one could represent those unknown owners and then use the money collected for other purposes after the expiration of a certain period of time in which the compensation has remained unclaimed.

It probably would be a minimal risk if Google just used orphan works as part of their project, while at the same time committing itself to negotiate with all those who can show that they own the rights to works previously thought to be orphan works.

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<sup>14</sup> PublishersWeekly.com, *Book Rights Registry Closer to Launch*, <http://www.publishersweekly.com/article/CA6652829.html?rssid=192> (last visited Jan 31, 2010).

<sup>15</sup> California Digital Library, *Highlights of the Google Books Amended Settlement Agreement*, (Nov. 16, 2009), [http://osc.universityofcalifornia.edu/google/amended\\_agreement\\_highlights.pdf](http://osc.universityofcalifornia.edu/google/amended_agreement_highlights.pdf).

<sup>16</sup> Miguel Helft, *Google's Plan for Out-of-Print Books Is Challenged*, N.Y. TIMES, Apr. 4, 2009, at A1, also available at <http://www.nytimes.com/2009/04/04/technology/internet/04books.html>.

Something similar, albeit on a much smaller scale, happened in The Netherlands.<sup>17</sup> In 1996, after the introduction of neighboring rights, the cable operators agreed to periodically pay a certain amount of money to a collective rights management organisation that could be used as a compensation for possible future, but unknown, holders of neighbouring rights. After ten years, not a single claim had been received; consequently, the cable operators asked for reimbursement of the amounts that had been reserved, and got the money back.

- The Settlement Agreement also has the potential of restricting the free use of works that are already in the public domain.<sup>18</sup>

### III WHAT SHOULD BE DONE INSTEAD?

It is important to widen the debate on the requirements to be imposed on Google in order to pursue their Project; it should involve individual authors, creators and performers, as well as the public at large. Governments should define the public interest that is to be protected (something which the French government has already done, since it is pursuing on a national basis its own project to collect and digitize cultural expressions).<sup>19</sup> Perhaps Unesco would be the right place to define the public interest.<sup>20</sup>

When determining the conditions under which Google can realize its project, the following issues need to be addressed:

- Exclusive rights of copyright owners are not absolute; they are to

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<sup>17</sup> P. Bernt Hugenholtz, *Chronicle of The Netherlands Dutch copyright law, 1995-2000* (January 2001), available at [www.ivir.nl/publications/hugenholtz/PBH-RIDA2000.doc/](http://www.ivir.nl/publications/hugenholtz/PBH-RIDA2000.doc/).

<sup>18</sup> Jonathan Band, *A Guide for the Perplexed: Libraries and the Google Library Project Settlement*, LLRX.COM, Dec. 14, 2008, <http://www.llrx.com/features/googleprojectsettlement.htm>.

<sup>19</sup> Sophie Hardach, *France Joins Race to Digitize World's Books*, REUTERS, Jan. 20, 2010, <http://www.reuters.com/article/idUSTRE60K01H20100121?>.

<sup>20</sup> Eric Pfanner, *Unesco Puts World's Major Works Online*, N.Y. TIMES ONLINE, Apr. 21, 2009, <http://www.nytimes.com/2009/04/21/technology/21library.html>.

be balanced against other interests which are worthwhile to protect, such as the cultural interests of society as a whole and the fundamental right of everyone to receive and impart information; the latter is important in a democratic society, the proper functioning of which depends on the ability of persons to contribute effectively to the democratic debate, which they can only do if they can access information sources to inform themselves properly;

- Then there is the interest of promoting innovation. Innovation is the engine of modern economies and the basis of the creation of greater wealth and well-being of the people;
- A fundamental principle of any market economy is the prevention of monopolization. In Europe, competition law is used for this. Under European competition law, it is illegal to engage in cartel agreements or concerted practices and if a company has a dominant economic position (which is more likely to be the case when a company has certain exclusive rights), the competition authorities will monitor whether such a position is not abused.<sup>21</sup> In addition, concentration control measures attempt to prevent the establishment of dominant positions that are likely to create too much market power. The establishment of such positions can either be prohibited or be subjected to certain requirements to protect the public interest.

#### IV AN ALTERNATIVE APPROACH

A better way to protect copyright interests while taking account of the public interest involved and promoting innovation, would be to use competition law (or, antitrust law in the United States) to provide a basis for Google's operations.

First of all, there should be a compulsory license for the digital reproduction of books in order to allow Google to pursue its scanning activities.<sup>22</sup> Such compulsory licenses are not a novelty in the media

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<sup>21</sup> LENNART RITTER & W. DAVID BRAUN, *EUROPEAN COMPETITION LAW: A PRACTICIONER'S GUIDE* 135 (Kluwer Law International 2005).

<sup>22</sup> In this sense, the author is referring to the act of reproduction; not for the subsequent act of communication of the works to the public by displaying them.

industry; for example, they also exist in the music business.<sup>23</sup> It does not mean that Google would not have to pay compensation for their scanning activities, but the level of compensation could then be established by law, taking account of all interests involved. To avoid misunderstanding, like in the music business,<sup>24</sup> there would be no obligation for Google to rely on the compulsory license; they could still choose to negotiate different terms.

Secondly, the Department of Justice should decide if, given Google's market power, it should be subject to certain behavioural rules in the public interest until such moment that there is a sufficient level of competition. This approach is also not a new one. For example, in the European telecommunications sector, the regulatory framework obliges the national regulatory authorities (NRAs) to analyze a number of markets that have been identified by the European Commission as relevant product markets.<sup>25</sup> The NRAs will need to decide whether there is a company with significant market power (SMP) active in any of those markets.<sup>26</sup> If that is the case, the NRA has the obligation to impose remedies in order to prevent any possible abuse of such market power.<sup>27</sup> The remedies can vary from obligations to disclose certain information, to pursue cost-oriented pricing policies or even to make a wholesale offer to third parties which can then offer these services under their own name in the retail market, in competition with the SMP operator's own retail services.<sup>28</sup>

Following the example of the telecommunications sector, the behavioural rules which could be imposed on Google might be, for

<sup>23</sup> See 17 U.S.C. §115.

<sup>24</sup> See e.g. Donald S. Passman; *All You Need To Know About The Music Business* (Free Press, 2009).

<sup>25</sup> Council Directive 2002/21/EC at L108/36, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:108:0033:0033:EN:PDF>.

<sup>26</sup> 52 Official Journal of the European Union L337, (Dec. 18, 2009), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:337:FULL:EN:PDF>.

<sup>27</sup> *Supra* note 27 at L108/45.

<sup>28</sup> *Supra* note 28.

example, that Google should make its database of scanned books available to third parties on transparent, fair, reasonable and non-discriminatory terms or that it cannot refuse to include in the database, upon request, books which it would exclude if given a free choice.<sup>29</sup>

In addition to the reproduction rights, the right to communicate the books to the public (by making them available online) should, of course, also be cleared with the rights owners, i.e. the publishers. Here, a possible rule could be that owners of exclusive rights will not be allowed to use their rights in such a way that works, after their first publication, are not available on the market for any extended period of time. Market foreclosure will not be allowed. Prices can be negotiated freely between the rights owners and the users, but excessive pricing should be avoided. The latter could be done by creating an expert tribunal or panel of which the members have the knowledge and experience to decide on fair pricing issues.

The above would, in no way affect the exclusive right of the creator or of the first owner of a copyright to decide not to bring the product to the market. The rules would only apply after the work's first lawful publication.

## V CONCLUSIONS

The Settlement should not be approved. It is too one-sided in that it only protects the interests of the publishers who started the class action against Google, thereby ignoring the wider public interest of society as a

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<sup>29</sup> This approach would be similar to the obligations imposed by many European countries on cable operators to carry certain broadcast channels that are deemed to be in the public interest ('must carry obligations'). See EUROPEAN COMMISSION, DIRECTORATE-GENERAL INFORMATION SOCIETY, COMMUNICATIONS SERVICES: POLICY AND REGULATORY FRAMEWORK, WORKING DOCUMENT ON 'MUST-CARRY' OBLIGATIONS UNDER THE 2003 REGULATORY FRAMEWORK FOR ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES (July 22, 2002), *available at*

[http://ec.europa.eu/information\\_society/policy/ecom/doc/current/broadcasting/workin\\_g\\_doc\\_must\\_carry.pdf](http://ec.europa.eu/information_society/policy/ecom/doc/current/broadcasting/workin_g_doc_must_carry.pdf). The consequence of such an approach would, however, be that the position of the owners of exclusive rights to works, which are subject to a statutory obligation to be included in the database, would be strengthened significantly: Google has no other choice than to include those works in their offer, but such a statutory obligation does not put aside the private rights of the authors; consequently, they can ask any fee that they like (unless the legislator puts a cap on it).

whole. It does not recognize the fact that the deal sets a precedent by creating a powerful Registry of rights owners able to dictate pricing policies and other business practices of users that may potentially compete with them; moreover, the Settlement will have a global impact and should therefore be assessed in a global context. There are other, better, ways to allow Google to pursue its goals; these would lead to better results and would better respect the interests of copyright owners, users and the general public.