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# DIGITAL LITERACY AND AMERICAN COMPETITIVENESS: HOW COMMUNICATIONS TECHNOLOGY CAN STEM AMERICA'S HIGH SCHOOL DROPOUT RATE

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It is my pleasure to introduce this edition of *CommLaw Conspectus: Journal of Communications Law and Policy*. *Conspectus*, a Latin word to describe a broad survey of a subject area, is a particularly fitting name for this edition. The articles featured within touch upon the wide array of issues facing the communications industry and highlight the intersection of technology and critical issues such as energy efficiency, privacy, and reforming the Universal Service Fund. The quality of work in this edition further cements this journal's role as a forum for vigorous and serious scholarship.

We are awash in the hyperbole of techno-evangelists who speak excitedly about the potential benefits of the Information Age. The future indeed should be bright for America, but there is a very serious risk that it will be nothing

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more than fiction. Our country is not on a path to digital prosperity and the problem has nothing to do with technology or broadband deployment. Rather, the plague that will rot our ambitions is the fact that we are failing to educate a populace that can harness the potential the digital era offers. If we fail to fix it, the American Dream will be nothing more than fantasy.

Nothing exemplifies our failure more starkly than the high school dropout crisis. Indeed, America's high school graduation rate remains unacceptably low even for last century's manufacturing-based economy, let alone today's globalized, ICT-focused marketplace. According to the Alliance for Excellent Education, "[o]ver a million of the students who enter ninth grade each fall fail to graduate with their peers four years later"<sup>1</sup> and only about half of Hispanic and African-American students graduate on time.<sup>2</sup> With the national dropout rate hovering above 25%, we lose the equivalent of an entire graduating class every four years. If we accept the premise that the "high school graduation rate is a barometer of the health of American society and the skill level of its future workforce,"<sup>3</sup> then we must confront the fact that our nation's health and economic vitality are at risk—and that we must make an urgent national priority of ensuring that our young people not only graduate but leave high school prepared for college and work.

As one study notes, "[t]he decision to drop out is a dangerous one for the student, particularly in a post-Industrial and technological age in which workers need at least a high school diploma to compete in the workforce."<sup>4</sup> But the high numbers of high school dropouts are not simply sad statistics that exist in a societal vacuum. They create economic ripple effects far beyond their individual lives and their local community. Because dropouts are twice as likely to live in poverty than graduates, and eight times more likely to wind up in prison, we all pay a price in the form of increased taxpayer expenditures for public assistance,<sup>5</sup> medical care<sup>6</sup> and criminal justice,<sup>7</sup> lower tax revenues for

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<sup>1</sup> *Fact Sheet: High School Dropouts in America*, ALLIANCE FOR EXCELLENT EDUCATION 1 (Feb. 2009), [http://www.all4ed.org/files/GraduationRates\\_FactSheet.pdf](http://www.all4ed.org/files/GraduationRates_FactSheet.pdf) [hereinafter ALLIANCE Fact Sheet].

<sup>2</sup> *Id.* at 1.

<sup>3</sup> James J. Heckman & Paul A. LaFontaine, *The American High School Graduation Rate: Trends and Levels 2* (Iza Discussion Paper Series, Dec. 2007), available at <http://ftp.iza.org/dp3216.pdf>.

<sup>4</sup> JOHN M. BRIDGELAND, JOHN J. DI IULIO, JR., & KAREN BURKE MORISON, THE SILENT EPIDEMIC: PERSPECTIVES OF HIGH SCHOOL DROPOUTS 2 (Mar. 2006) [hereinafter SILENT EPIDEMIC STUDY], available at <http://www.civicenterprises.net/pdfs/thesilentepidemic3-06.pdf>.

<sup>5</sup> Bill Whitaker, *High School Dropouts Costly for American Economy*, CBS NEWS, May 28, 2010, <http://www.cbsnews.com/stories/2010/05/28/eveningnews/main6528227.shtml> ("Dropouts cost taxpayers more than \$8 billion annually in public assistance programs like food stamps.")

governmental entities, and a lower Gross Domestic Product (GDP).<sup>8</sup> One 2009 study estimated that “[d]ropouts from the Class of 2008 alone will cost the nation more than \$319 billion in lost wages over the course of their lifetimes.”<sup>9</sup> At the present dropout rate over the next decade, that cost will be \$3.2 trillion to the economy—representing \$30,000 for every U.S. household.

On a global level, the dropout crisis imperils America’s position as the leading economic force and engine of innovation. Generating new ideas and technologies that ensure our continued “economic eminence” is critical, and as one commentator noted, the “recession has only emphasized the enormous handicaps facing less-skilled Americans . . . If we want the United States to be strong, we must make sure that we have more college graduates and fewer high-school dropouts.”<sup>10</sup>

During the twentieth century, the nation’s public education system enabled the United States to achieve its unparalleled economic success in an industrial, manufacturing-based world.<sup>11</sup> To transition to an ICT-based economy, we must improve graduation rates and provide students with the skill sets and experiences necessary to successfully compete in today’s global marketplace. As one paper observes, “[g]ood, middle-class jobs now require skills acquired through high levels of education. These include complex problem solving, effective communications, and the ability to exercise independent judgment while working in groups.”<sup>12</sup> I am heartened that policymakers have taken note. The Federal Communications Commission, in its National Broadband Plan, recognized

<sup>6</sup> ALLIANCE Fact Sheet, *supra* note 1, at 2.

(“If the United States’ likely dropouts from the Class of 2006 had graduated, the nation would have saved more than \$17 billion in Medicaid and expenditures for uninsured health care over the course of those young people’s lifetimes.” (citation omitted)).

<sup>7</sup> *Id.* (“Increasing the graduation rate and college matriculation of male students in the United States by just 5 percent could lead to combined savings and revenue of almost \$8 billion each year by reducing crime-related costs.”); *see also* Whitaker, *supra* note 5 (“Almost 60 percent of federal inmates are high school drop outs.”).

<sup>8</sup> *Closing the Graduation Gap: Toward High Schools That Prepare All Students for College, Work, and Citizenship 2* (Bill & Melinda Gates Foundation, Education Policy Paper, Apr. 8, 2003), available at [http://www.learndoeearn.org/For-Educators/Gates\\_Foundation.pdf](http://www.learndoeearn.org/For-Educators/Gates_Foundation.pdf) [hereinafter Gates Policy Paper] (“It is estimated that significantly narrowing the gap in college-going rates of the highest- and lowest-income Americans would add nearly \$250 billion to the gross domestic product and \$80 billion in taxes.”).

<sup>9</sup> ALLIANCE Fact Sheet, *supra* note 1, at 2 (citation omitted).

<sup>10</sup> Edward L. Glaeser, *The Information Economy Powers Wage Increases*, N.Y. TIMES ECONOMIX BLOG (Oct. 26, 2010, 6:00 AM), <http://economix.blogs.nytimes.com/2010/10/26/the-information-economy-powers-wage-increases/>.

<sup>11</sup> *See* FED. COMM’NS COMM’N, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN 225 (2010), available at <http://www.broadband.gov/downloadplan> [hereinafter NATIONAL BROADBAND PLAN].

<sup>12</sup> Gates Policy Paper, *supra* note 8, at 1.

that “the demands of the new information-based economy require substantial changes to the existing system.”<sup>13</sup>

Much ink has been spilled on proposals for additional classroom emphasis on science, technology, engineering, and math (STEM) subjects,<sup>14</sup> as well as a new focus on soft skills, such as teamwork, communication, and problem solving. While we should applaud and support such efforts, I want to focus on another area: the connection between digital literacy and dropout rates.

Information technologies can play a positive role in keeping students in school and on track to graduate. By engaging students at high risk for dropping out with experiences that reflect today’s workplace and providing those students with the digital skills required to succeed in that workplace, we can help improve our country’s graduation rate. In 2006, the Bill & Melinda Gates Foundation asked high school dropouts why they made that choice. As detailed in *The Silent Epidemic: Perspectives of High School Dropouts*, high school dropouts said that making classroom learning “more relevant to their lives” was a way schools could “improve the chances that a student would stay in high school.”<sup>15</sup> The report continued: “[f]or students to build the skills they will need, schoolwork must be relevant to real-world situations, with curriculum aligned with the workplace. However, we found that 43% of students said that they ‘never’ or only ‘sometimes’ believe that their homework was meaningful and important.” The *Silent Epidemic* study also noted that “[e]ighty-one percent of survey respondents said that if schools provided opportunities for real-world learning (internships, service learning projects, and other opportunities), it would have improved the students’ chances of graduating from high school.”<sup>16</sup> One advocacy group noted, “[s]chools can either engage students and guide them toward future careers, or they can turn them off. Students who are engaged with their schoolwork are more likely to achieve academically and to be engaged in the workplace as well.”<sup>17</sup>

The FCC’s National Broadband Plan highlighted the role communications technology can play in reducing dropout rates as well. The National Broadband Plan cites the Aldine Independent School District in Texas, which “was able to reach at-risk students and get them to take classes online that earned school credit. . . . In addition to dropout prevention, online systems provide flexibility to students who cannot be in school for health, child care, work, or other rea-

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<sup>13</sup> NATIONAL BROADBAND PLAN, *supra* note 11, at 225.

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

<sup>15</sup> SILENT EPIDEMIC STUDY, *supra* note 4, at 11.

<sup>16</sup> *Id.* at 12.

<sup>17</sup> AMERICA’S PROMISE ALLIANCE, ISSUE BRIEF WORKFORCE READINESS-UNDER-EQUIPPED AND UNPREPARED: AMERICA’S EMERGING WORKFORCE AND THE SOFT SKILLS GAP 4 (Sept. 2007).

sons.”<sup>18</sup> The Plan continued:

In an increasingly digital world, literacy must be defined more broadly to include fluency in digital skills and information. Digital literacy is ‘the ability to find, evaluate, utilize, and create information using digital technology.’ Additional skills include ‘the ability to read and interpret media (text, sound, images), to reproduce data and images through digital manipulation and to evaluate and apply new knowledge gained from digital environments.’ It can include the ability to analyze and reflect critically on digital media.<sup>19</sup>

Businesses also increasingly recognize their own bottom-line interest in reversing the dropout crisis, as they seek workers with the skills their organizations need, along with consumers who have the purchasing power to afford their products and services. As President and CEO of the National Cable and Telecommunications Association, I am proud of our own industry’s efforts to improve the digital literacy of America’s students. For example, the cable industry’s national education foundation, Cable in the Classroom (CIC)<sup>20</sup> promotes visionary, sensible, responsible and effective use of cable’s broadband technology, services, and content in teaching and learning. CIC also advocates digital citizenship and supports the complementary provision, by cable industry companies, of broadband and multichannel video services and educational content to the nation’s schools. CIC has three main areas of work:

- (1) Exercise a national leadership role in advocating the innovative and effective use of broadband in teaching and learning, and for digital citizenship.
- (2) Encourage and recognize educational leadership that exemplifies the innovative use of cable services, broadband technology, media literacy, and related services and applications.
- (3) Represent the cable industry’s commitment to education by showcasing the wide variety of cable initiatives in education, and by encouraging cable industry companies to continue their efforts to contribute to learning.

Many NCTA member companies have their own digital literacy efforts, and I will highlight two here. Time Warner Cable’s Connect a Million Minds program is a “five-year, \$100 million cash and in-kind philanthropic initiative to address America’s declining proficiency in science, technology, engineering and math (STEM), which puts our children at risk of not competing successfully in a global economy.”<sup>21</sup> The Comcast Foundation partners with non-profit

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<sup>18</sup> NATIONAL BROADBAND PLAN, *supra* note 11, at 228.

<sup>19</sup> *Id.* at 232.

<sup>20</sup> CABLE IN THE CLASSROOM, <http://www.ciconline.org> (last visited May 14, 2011).

<sup>21</sup> CONNECT A MILLION MINDS, <http://connectamillionminds.com/overview.php> (last visited May 14, 2011).

organizations throughout the country to support “digital literacy through technology labs, online job-search training, online safety and other programs” and their partnership with One Economy—the Comcast Digital Connectors program—“helps train teens and young adults to use broadband and digital tools and to prepare for potential careers in digital media. In turn, students use their new-found knowledge to help spread digital literacy throughout their neighborhoods.”<sup>22</sup> These efforts—and the efforts of many other organizations and NCTA-member companies—represent an investment in our country’s economic competitiveness and our future.

As communications technologies become increasingly intertwined in our daily lives, our society will continue to evolve in how we think, work, learn, and interact with one another. The articles in this volume add to the public debate regarding how that evolution will play out in the future. I congratulate the authors and the staff of *CommLaw Conspectus* for the production of another successful volume. In providing the forum for this public dialogue, they have fulfilled their mission of publishing “thoughtful, timely, and useful articles that discuss recent developments in communications law and policy.”

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<sup>22</sup> *Expanding Digital Literacy*, COMCAST, <http://www.comcast.com/Corporate/About/InTheCommunity/Literacy/digital-literacy.html> (last visited May 14, 2011).