#### INVITED TESTIMONY BEFORE THE

### ARKANSAS GOVERNOR'S COUNCIL ON COMMON CORE REVIEW

### JANE W. ROBBINS

# May 20, 2015

## Lt. Governor Griffin and members of the council:

My name is Jane Robbins, and I am a senior fellow with the American Principles Project, an organization devoted to restoring our nation's founding principles. I appreciate the opportunity to talk to you today about student privacy.

The privacy of Arkansas students and their families is under assault in our public-education system. I commend you for examining this critical issue, which is intertwined with the problem of the Common Core national standards. I urge the Arkansas executive officials and legislature to institute strong safeguards to blunt the attempts by both the federal government and private interests to access, exploit, and share your students' private information.

A particularly troubling aspect of the Common Core national standards scheme is the emphasis on massive data-collection on students, and the sharing of that data for various purposes essentially unrelated to genuine education. U. S. Secretary of Education Arne Duncan has said:

Hopefully, some day, we can track children from preschool to high school and from high school to college and college to career . . . . We want to see more states build comprehensive systems that track students from pre-K through college and then link school data to workforce data. We want to know whether Johnny participated in an early learning program and then completed college on time and whether those things have any bearing on his earnings as an adult.<sup>1</sup>

To know all this, of course, we have to know pretty much everything Johnny does, throughout his lifetime. And Arkansas has already begun the process of data-collection even on toddlers<sup>2</sup> –

<sup>&</sup>lt;sup>1</sup> Remarks of Arne Duncan to the Fourth Annual IES Research Conference, June 8, 2009, *available at* <a href="http://www2.ed.gov/news/speeches/2009/06/06082009.html">http://www2.ed.gov/news/speeches/2009/06/06082009.html</a>.

<sup>&</sup>lt;sup>2</sup> Arkansas Race to the Top Grant Application Phase I (January 2010), available at <a href="http://www2.ed.gov/programs/racetothetop/phase1-applications/arkansas.pdf">http://www2.ed.gov/programs/racetothetop/phase1-applications/arkansas.pdf</a>, pp. 64-65 (all children in the Arkansas Better Chance – ABC – program undergo data-collection on developmental progress, Body Mass Index, etc.; "ADE's longer-term objective is to expand the capture of information for all Arkansas children in this age

in fact, the state was recently awarded a federal grant to help do just that.<sup>3</sup> The expressed long-term goal is to collect data on "all" Arkansas children – not just those enrolled in public programs – "from their earliest years."<sup>4</sup>

The underlying philosophy has its roots in early-20<sup>th</sup>-century Progressivism. The Progressives believed that the modern world had become so much more complex than the world that existed at the time of the American founding, that the old principles of individual freedom and limited government were no longer sufficient. In the modern world, experts would be needed to address increasingly complex challenges. Experts, they argued – armed with sweeping data on the citizenry – offer the best hope for societal progress.

An essential component of this "necessary" data is information that can be gleaned from the captive audience of public-school students (and maybe private and homeschooled as well). Progressive education reformers such as Marc Tucker, of the National Center on Education and the Economy, have long advocated the creation of massive student databases that can be used to track children from birth through the workforce. This is what Arne Duncan, quite openly, wants to do.

Now the problem here, from Duncan's point of view, is that a federal statute prohibits maintaining a national student database. What to do? What the federal government has chosen to do – and this predates the Obama Administration – is to incentivize the states to build identical databases so that the data can be easily shared. We end up with a *de facto* national student database.

All this was done, of course, through the power of the federal purse. In 2002 the federal government began something called the Statewide Longitudinal Data System grant program to offer grants to states that agreed to build their student data systems according to federal dictates. The most recent iterations of this grant program were the infamous Stimulus bill of 2009, which required the construction of particular data systems in exchange for money from the State Fiscal Stabilization Fund (and under which Arkansas received an education grant of

category, and ultimately to collect a broad range of information on children in the State from their earliest years . . . ").

<sup>&</sup>lt;sup>3</sup> http://www.ed.gov/news/press-releases/18-states-awarded-new-preschool-development-grants-increase-access-high-quality-?src=rotator

<sup>&</sup>lt;sup>4</sup> Arkansas Race to the Top Grant Application Phase I (January 2010), *available at* <a href="http://www2.ed.gov/programs/racetothetop/phase1-applications/arkansas.pdf">http://www2.ed.gov/programs/racetothetop/phase1-applications/arkansas.pdf</a>, pp. 64-65.

<sup>&</sup>lt;sup>5</sup> 20 U.S.C § 7911.

<sup>&</sup>lt;sup>6</sup> 20 U.S.C. § 9501 et seq.

<sup>&</sup>lt;sup>7</sup> U. S. Department of Education, "State Fiscal Stabilization Fund" (March 7, 2009), *available at* <a href="http://www2.ed.gov/policy/gen/leg/recovery/factsheet/stabilization-fund.html">http://www2.ed.gov/policy/gen/leg/recovery/factsheet/stabilization-fund.html</a>.

over \$341 million<sup>8</sup>) and then the Race to the Top program. Applicants for Race to the Top money agreed to adopt the Common Core Standards, to adopt an assessment aligned with Common Core, and to commit to expanding their student database.<sup>9</sup> This is what Arkansas, in its Race to the Top application, agreed to do.<sup>10</sup> This commitment was made *regardless* of whether the state's application was successful.

What kinds of data are we talking about? The National Education Data Model recommends over 400 data points, including health history, disciplinary history, family income range, voting status, religious affiliation, and on and on.<sup>11</sup>

Well, is this really connected with Common Core? Yes. One connection is through the national assessments: PARCC and Smarter Balanced. Each of those consortia has signed a cooperative agreement with the U.S. Department of Education in which the Department is allowed continuing access to all *student-level data* the consortium gets through the testing. Although PARCC, in response to nationwide parental outrage about this agreement, has since issued a privacy policy pledging not to give personally identifiable information to the U.S. Department, PARCC is still bound by this cooperative agreement. One party to a contract cannot change the contract terms merely by declaring unilaterally that it won't abide by them.

But even for states that have withdrawn from the PARCC and Smarter Balanced assessments, the privacy threat remains. The U. S. Department is becoming increasingly aggressive about demanding personally identifiable student data in conjunction with all sorts of federal grants, as can be attested by the states that are not in Common Core. The federal government is encouraging widespread sharing of student data within states, such as with departments of labor, public health, corrections, etc.<sup>13</sup> And as I will explain in a minute, the very structure of the Common Core national standards encourages the accumulation of so-called "fine-grained" data on students to determine their attitudes and dispositions. The idea is that the State (upper

<sup>&</sup>lt;sup>8</sup> Arkansas Race to the Top Grant Application Phase I (January 2010), *available at* http://www2.ed.gov/programs/racetothetop/phase1-applications/arkansas.pdf, p. 27.

<sup>&</sup>lt;sup>9</sup> U. S. Department of Education, "Race to the Top Program Executive Summary" (Nov. 2009), *available at* http://www2.ed.gov/programs/racetothetop/executive-summary.pdf.

<sup>&</sup>lt;sup>10</sup>Arkansas Race to the Top Grant Application, *ibid*. n. 5.

<sup>&</sup>lt;sup>11</sup> National Education Data Model, National Center for Education Statistics, *available at* http://nces.ed.gov/forum/datamodel/.

<sup>&</sup>lt;sup>12</sup> Cooperative Agreement Between the U.S. Department of Education and the Partnership for Assessment of Readiness for College and Careers (Jan. 7, 2011), *available at* <a href="http://www2.ed.gov/programs/racetothetop-assessment/parcc-cooperative-agreement.pdf">http://www2.ed.gov/programs/racetothetop-assessment/parcc-cooperative-agreement.pdf</a>, pp. 3, 10 (PARCC must "make student-level data that results from the assessment system available [to USED] on an ongoing basis for research, including for prospective linking, validity, and program improvement studies"; PARCC "must provide timely and complete access to any and all data collected at the State level to [USED] . . . . ").

<sup>&</sup>lt;sup>13</sup> See U. S. Department of Labor, "Workforce Data Quality Initiative," available at <a href="http://www.doleta.gov/performance/workforcedatagrant09.cfm">http://www.doleta.gov/performance/workforcedatagrant09.cfm</a>; Race to the Top Executive Summary, supra, at p. 4.

case) should know everything there is to know about a student, so that he can be better directed toward his proper slot in the economic machine.

We are told not to worry about this, because any sharing of data will comply with the Family Educational Rights and Privacy Act (FERPA). But as of January 2012, FERPA has been gutted, and no longer protects our children's data from almost unlimited sharing. <sup>14</sup> Under the new regulatory interpretation, the U.S. Department of Education (and in fact state departments of education, and schools) may disclose personally identifiable student data to literally anyone in the world, as long as the disclosing agency uses the correct language to justify its action. <sup>15</sup> Parents need not even be informed of the disclosure. And there is no Arkansas law that protects what FERPA no longer does.

Pursuant to this enthusiasm for sharing student data, where might that data end up?

Under the new regulations that gutted federal student-privacy law, personally identifiable data may now be shared with literally any agency if the correct enabling language is used: the Department of Health and Human Services, Homeland Security . . . the IRS? And data may be shared with any company, foundation, or even individual, in this country or abroad, as long as the goal can be loosely described as an "audit" or "evaluation" of an education program (very broadly defined). Just one year ago, for example, the Seattle public school district was caught sharing student data with *The Seattle Times* newspaper. <sup>16</sup> Parents were horrified, but under the FERPA changes, the breach wasn't illegal.

In its Race to the Top application, the Arkansas Department of Education cited workforcedevelopment as a reason to share private student data with other agencies:

In 2009, Arkansas's Workforce Cabinet agreed to and is building the system now to link even more data to form an education to workforce longitudinal data system. . . . [The state has] a statewide multi-agency data-sharing consortium established at the direction of Governor Beebe. 17

So Arkansas parents' assumption that education data remains with education agencies is unfounded. And groups such as the Data Quality Campaign, funded by millions of dollars from

<sup>&</sup>lt;sup>14</sup> http://www.gpo.gov/fdsys/pkg/FR-2011-12-02/pdf/2011-30683.pdf

<sup>&</sup>lt;sup>15</sup> Comments of American Association of Collegiate Registrars and Admissions Officers (May 23, 2011), *available at* <a href="http://www.nacua.org/documents/FERPA">http://www.nacua.org/documents/FERPA</a> AACRAOLetterMay2011.pdf.

<sup>&</sup>lt;sup>16</sup> "Student Data and *The Seattle Times*" (Dec. 23, 2013), *available at* http://slog.thestranger.com/slog/archives/2013/12/23/student-data-and-the-seattle-times.

<sup>&</sup>lt;sup>17</sup> Arkansas Race to the Top Grant Application Phase I (January 2010), *available at* http://www2.ed.gov/programs/racetothetop/phase1-applications/arkansas.pdf, pp. 25, 52.

private foundations such as the Bill & Melinda Gates Foundation, <sup>18</sup> are enthusiastic adherents of Arne Duncan's vision to track each child from preschool through the workforce. <sup>19</sup>

The U.S. Department is supporting a plethora of other programs that encourage states to build ever bigger and ever more "useful" data systems on students. It's funding something called "Common Education Data Standards"<sup>20</sup> to help states develop a common vocabulary for their data – the better to enable interstate sharing. It's funding the "Assessment Interoperability Framework" to "allow for the transfer of assessment-related data across applications within a district, between a district and a state agency, and across state lines."<sup>21</sup> There are many other such programs, which you will find referenced in the Pioneer institute report, *Cogs in the Machine*, <sup>22</sup> which is available on the Pioneer website.

So although the federal government assures us it is not building a *de facto* national student database, *everything* it is doing in the area of technology is designed to allow for just that.

Both the U.S. Department and, frequently, state education officials insist that privacy concerns are overblown, because student-level data will be anonymized. In the first place, bear in mind that the newly gutted FERPA allows sharing of *personally identifiable* data, without parental consent or even knowledge. And in the second place, in the era of Big Data, there really is no such thing as anonymization. When there are multiple, perhaps hundreds, of items in the database, the absence of a name or a Social Security number becomes a mere inconvenience, not an obstacle to identifying the student.

There are many examples of data re-identification. In Kentucky in 1999, for example, a researcher was able to match over 2,300 students who appeared on anonymized lists of test-takers – and the match had 100% accuracy.<sup>23</sup> And this was almost 15 years ago – long before education bureaucracies were collecting the myriad data they are now.

<sup>&</sup>lt;sup>18</sup> See Data Quality Campaign, "Funders," available at <a href="http://www.dataqualitycampaign.org/who-we-are/funders/">http://www.dataqualitycampaign.org/who-we-are/funders/</a>; Bill & Melinda Gates Foundation, "Awarded Grants," available at <a href="http://www.gatesfoundation.org/How-We-Work/Quick-Links/Grants-Database#q/k=data%20quality%20campaign">http://www.gatesfoundation.org/How-We-Work/Quick-Links/Grants-Database#q/k=data%20quality%20campaign</a> (showing \$7.17 million to DQC in last five years).

<sup>&</sup>lt;sup>19</sup> See "Data for Action 2012: Aimee Guidera Discusses the Results" (video, Nov. 20, 2012), available at <a href="http://www.dataqualitycampaign.org/find-resources/data-for-action-2012-aimee-guidera-discusses-the-results">http://www.dataqualitycampaign.org/find-resources/data-for-action-2012-aimee-guidera-discusses-the-results</a>.

<sup>&</sup>lt;sup>20</sup> Common Education Data Standards Initiative, available at <a href="http://commoneddatastandards.org/">http://commoneddatastandards.org/</a>.

<sup>&</sup>lt;sup>21</sup> Common Education Data Standards, "Assessment Interoperability Framework," *available at* <a href="https://ceds.ed.gov/aif.aspx">https://ceds.ed.gov/aif.aspx</a>.

<sup>&</sup>lt;sup>22</sup> Emmett McGroarty, Joy Pullmann, and Jane Robbins, *Cogs in the Machine: Big Data, Common Core, and National Testing,* Pioneer Institute, No. 114 (May 2014), *available at* <a href="http://truthinamericaneducation.com/privacy-issues-state-longitudinal-data-systems/cogs-in-the-machine-big-data-common-core-and-national-testing/">http://truthinamericaneducation.com/privacy-issues-state-longitudinal-data-systems/cogs-in-the-machine-big-data-common-core-and-national-testing/</a>.

<sup>&</sup>lt;sup>23</sup> Lauress Wise, "Impact of Exclusion Rates on NAEP 1994 to 1998 Grade 4 Reading Gains in Kentucky," Human Resources Research Organization (Sept. 27, 1999), *available at* http://nces.ed.gov/whatsnew/commissioner/remarks99/9 27 99pt2.asp.

One scholar who has studied this problem has explained that "[u]tility and privacy [of data] are . . . two goals at war with one another. . . . [A]t least for useful databases, perfect anonymization is impossible." And the U.S. Department fully intends for student data to be enormously useful to the Progressive machine. Anonymization will be impossible.

To this point we have been talking about what could be called "filing cabinet" data, the kinds of information (name, address, grades, etc.) that schools used to keep in filing cabinets. But the more serious problem, in my view, is the data that exists inside a child's brain – information about how his mind works, how he reacts to certain stimuli, what sorts of attitudes and dispositions he exhibits. This is called "fine-grained" data, and the education techno-enthusiasts such as the Data Quality Campaign are excited about the possibilities of being able to peer into a child's brain and measure and analyze how it functions.<sup>25</sup>

But they don't call it "Orwellian analysis of students' minds." They call it "digital learning" or "personalized learning." Sounds good, right? But when you hear these phrases, understand that they're not referring to simply an alternative means of accessing text or lectures. Rather, they refer to the type of interactive platforms that work by stimulus-response – the student sees something on the screen and has to choose a response, which leads to another prompt, and so on. Think Pavlov. This type of technological interplay generates enormous amounts of data on each student's behaviors and dispositions. Another name for it is "learning analytics."

At this point we must remember that Common Core fits nicely with this breakneck introduction of so-called "digital learning." That's because Common Core is essentially round two of "outcome-based education" (OBE) that was so controversial, and so despised by parents, in the 1990s. OBE was designed to minimize academic content knowledge in favor of training children to exhibit the "correct" attitudes and behaviors. That's exactly how Common Core is designed. Dr. Sandra Stotsky, professor emerita at the University of Arkansas, has railed against the utter dearth of academic content in the Common Core English language arts standards, describing them as "empty skills sets." The standards aren't focused on ensuring students understand Dickens or Twain; they focus on noncognitive "skills." That's why they are the ideal vehicle for introducing the "digital learning" or "personalized learning" into the classroom. And with that come mountains of "fine-grained data" on students.

<sup>&</sup>lt;sup>24</sup>Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization,* 57 UCLA LAW REV. 1701, 1752 (2010).

<sup>&</sup>lt;sup>25</sup> Rachel Anderson, "Happy Digital Learning Day!", Data Quality Campaign (March 13, 2015), *available at* <a href="http://www.dataqualitycampaign.org/blog/2015/3/happy-digital-learning-day/">http://www.dataqualitycampaign.org/blog/2015/3/happy-digital-learning-day/</a>.

<sup>&</sup>lt;sup>26</sup> Testimony of Dr. Sandra Stotsky to Colorado State Board of Education (Dec. 6, 2012), *available at* <a href="http://www.uaedreform.org/wp-content/uploads/2000/01/Stotsky">http://www.uaedreform.org/wp-content/uploads/2000/01/Stotsky</a> Testimony for Colorado.pdf.

Where are we headed with all this? It is instructive to look at what the U.S. Department itself is working on and writing about.

One report that appeared on the Department's website in February 2013 is called *Expanding Evidence: Approaches for Learning in a Digital World.*<sup>27</sup> This report discusses the enormous windfall of student data that will result from digital-learning technologies and digital assessment. This report was authored primarily by Karen Cator, who now heads up another federal data-development project.

The Cator report urges that this fine-grained data be used to develop individual profiles on students, that it be shared with various institutions and other stakeholders who may have an interest, and that it be used "for studying the noncognitive aspects of 21<sup>st</sup>-century skills, namely, interpersonal skills (such as communication, collaboration, and leadership) and intrapersonal skills (such as persistence and self-regulation)" – precisely the kinds of attributes targeted by the Common Core national standards. In fact, in the Cator report, the U.S. Department emphasizes that the gathering of this "extremely fine-grained information" on students will help with the implementation of Common Core.

Another report from the U.S. Department that came out about the same time is called *Promoting Grit, Tenacity, and Perseverance*. The thesis is that education (which is no longer to be focused on academic knowledge) must inculcate these qualities in students, and that their presence or absence must be measured in some way. How? The report suggests assessment of physiological reactions that a student exhibits to stimuli such as stress, anxiety, or frustration. These reactions could be measured through posture analysis, skin-conductance sensors, EEG brain-wave patterns, and eye-tracking.<sup>29</sup> And the report barely mentions the appalling invasion of privacy this kind of physiological measurement would entail; rather, it focuses on the "problem" that this isn't practical for the classroom – yet.<sup>30</sup>

The *Grit, Tenacity, and Perseverance* authors also drew a direct line to the Common Core national standards, noting that the math standards expressly require perseverance in struggling through problems.<sup>31</sup> If it is in the standards, they reason, it must be measured.

<sup>&</sup>lt;sup>27</sup> U. S. Department of Education, Office of Educational Techonology, "Expanding Evidence Approaches for Learning in a Digital World" (Feb. 2013), *available at* <a href="http://www.ed.gov/edblogs/technology/files/2013/02/Expanding-Evidence-Approaches.pdf">http://www.ed.gov/edblogs/technology/files/2013/02/Expanding-Evidence-Approaches.pdf</a>.

<sup>&</sup>lt;sup>28</sup> *Id.* at p. xii.

<sup>&</sup>lt;sup>29</sup> U. S. Department of Education, Office of Educational Technology, "Promoting Grit, Tenacity, and Perseverance: Critical Factors for Success in the 21<sup>st</sup> Century" (Feb. 2013), pp. 41-45, *available at* <a href="http://www.ed.gov/edblogs/technology/files/2013/02/OET-Draft-Grit-Report-2-17-13.pdf">http://www.ed.gov/edblogs/technology/files/2013/02/OET-Draft-Grit-Report-2-17-13.pdf</a>.

<sup>&</sup>lt;sup>30</sup> *Id.* at p. 45.

<sup>&</sup>lt;sup>31</sup> *Id.* at p. 6.

That the federal government is intent on collecting, storing, and analyzing this type of highly personal data on our children is confirmed by a recent grant from the National Science Foundation, which will be used to create a massive data repository for this psychological and even physiological information. The repository will be called "LearnSphere," and is designed to mine the reams of data to analyze not what the children know, but how the children think.<sup>32</sup> I, for one, do not want the government knowing how my child thinks.

There is no Arkansas law that restricts schools' use of these digital-learning platforms or that prevents the developers from harvesting the "fine grained data" they make possible. Nor is there any law requiring parental notification of and consent to this untested digital education. Finally, there is no Arkansas law that prevents the commercial exploitation of such student data.

In October 2012, the U.S. Department hosted a conference to explore the possibilities of implementing Common Core with the help of these intrusive digital platforms. They called this conference "Datapalooza." The CEO of one educational technology company waxed enthusiastic about the future. He said, "We are collecting billions of records of data . . . pulling data from everywhere . . . tens of thousands of places." This data, he said, will help students develop the "21st-century skills" that the government has determined students will need.

And how are these "21st-century skills" being promoted in the classroom? Through Common Core. "Common Core," he said, "is the glue that ties everything together." 33

I haven't even mentioned the ever-present problem of data-security. Hacking into student databases will occur, and in fact is already occurring on an almost routine basis (serious breaches, some caused by student hackers, have occurred in California, Maryland, Minnesota, New York, Oregon, Pennsylvania, and many other states; and if we include breaches of university records, we see that dozens of universities, including Arkansas State, have lost private individual information due to hacking).<sup>34</sup> The wealth of data collected on students and

<sup>&</sup>lt;sup>32</sup> "Carnegie Mellon Leads New NSF Project Mining Educational Data to Improve Learning" (Oct. 1, 2014), *available* at <a href="http://www.eurekalert.org/pub\_releases/2014-10/cmu-cml100114.php">http://www.eurekalert.org/pub\_releases/2014-10/cmu-cml100114.php</a>.

<sup>&</sup>lt;sup>33</sup> "White House Hosts 'Datapalooza' Built on Common Core Tests," *available at* <a href="http://whatiscommoncore.wordpress.com/2013/03/20/white-house-hosts-datapalooza-built-on-common-core-tests/">http://whatiscommoncore.wordpress.com/2013/03/20/white-house-hosts-datapalooza-built-on-common-core-tests/</a>.

<sup>34</sup> See <a href="http://www.kgw.com/story/news/2014/07/24/12373628/">http://www.kgw.com/story/news/2014/07/24/12373628/</a>;
<a href="http://www.edweek.org/dd/articles/2010/06/16/03hackers.h03.html">http://www.edweek.org/dd/articles/2010/06/16/03hackers.h03.html</a>;
<a href="http://www.aol.com/article/2015/05/13/minnesota-school-testing-interrupted-by-possible-hacking/21183095/">http://www.aol.com/article/2015/05/13/minnesota-school-testing-interrupted-by-possible-hacking/21183095/</a>;
<a href="http://fox40.com/2015/05/15/3-dixon-high-students-suspended-in-grade-data-breach/">http://fox40.com/2015/05/15/3-dixon-high-students-suspended-in-grade-data-breach/</a>;
<a href="http://www.databreaches.net/police-investigate-student-data-breach-at-south-western-high-school/">http://www.databreaches.net/police-investigate-student-data-breach-at-south-western-high-school/</a>;

their families is a hugely tempting target for people with malicious motives. But as serious as this problem is, the deeper problem is that the government has deemed our children little machines to be programmed, "human capital" to be exploited. Progressives have yearned to do this for at least 100 years – now they have the technology to do it. And the Common Core national standards, which diminish academic knowledge in favor of the "21st-century skills" that are developed and measured by this technology, are their passport to the Progressive future.

Given the evisceration of federal student-privacy law, it is critical that Arkansas take steps to prevent the "data free-for-all" that governments and private corporations are eager to exploit. If the Arkansas Department of Education does not share, and has no intention of sharing, personally identifiable student data with the federal government or anyone else, then presumably it will support strong legislation to ensure that future Arkansas DOE officials don't buckle under to federal pressure — or trade student data for federal bribes or corporate money. Presumably the Arkansas Department of Education will also support strong legislation to limit the compilation and analysis of fine-grained data on Arkansas children to analyze how their minds work. At the very least, it should support legislation requiring meaningful consent from parents before such Orwellian practices are used on their children. Arkansas can be a national leader in the movement to protect the privacy of children and their families.

### APPENDIX

American Association of Collegiate Registrars and Admissions Officers, Comments on U.S. Department of Education's Proposed FERPA Regulations (May 23, 2011), available at <a href="http://www.nacua.org/documents/FERPA">http://www.nacua.org/documents/FERPA</a> AACRAOLetterMay2011.pdf.

Steve Kolowich, "The New Intelligence," *Inside Higher Education* (Jan. 25, 2013), *available at* <a href="https://www.insidehighered.com/news/2013/01/25/arizona-st-and-knewtons-grand-experiment-adaptive-learning">https://www.insidehighered.com/news/2013/01/25/arizona-st-and-knewtons-grand-experiment-adaptive-learning</a>.

Stephanie Simon, "Data-Mining Your Child," *Politico* (March 15, 2014), *available at* <a href="http://www.politico.com/story/2014/05/data-mining-your-children-106676.html">http://www.politico.com/story/2014/05/data-mining-your-children-106676.html</a>.

Emmett McGroarty, Joy Pullmann, & Jane Robbins, *Cogs in the Machine*, Pioneer Institute, No. 114 (May 2014), *available at* https://www.heartland.org/sites/default/files/cogs in the machine1.pdf.

U.S. Department of Education, Office of Educational Technology, *Expanding Evidence: Approaches to Learning in a Digital World* (Feb. 2013), *available at*<a href="https://etcjournal.files.wordpress.com/2013/01/expanding evidence approaches draft.pdf">https://etcjournal.files.wordpress.com/2013/01/expanding evidence approaches draft.pdf</a>.

U.S. Department of Education, Office of Educational Technology, *Promoting Grit, Tenacity, and Perserverance: Critical Factors for Success in the 21<sup>st</sup> Century* (Feb. 2013), *available at* http://www.pgbovine.net/OET-Draft-Grit-Report-2-17-13.pdf.