STUDENT DATA:
TRUST, TRANSPARENCY,
AND THE ROLE OF CONSENT

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USES OF DATA IN SCHOOLS

Education systems have always relied on student information to effectively administer schools and improve classroom learning. Schools track student attendance and test scores in order to assess their performance; guidance counselors use report cards and disciplinary records to ensure students are on track; student data is used to administer free or reduced lunch programs, manage bus schedules, and accommodate students with various disabilities. These data uses are neither new nor controversial.

What has changed radically over the past few years is the development of new technologies that allow schools to better manage, analyze, and use their information. The debate surrounding this seismic shift in technological data management capabilities has often been conflated with broader educational policy discussions around issues such as the Common Core Standards and assessment of teacher and school performance across districts and states. While these broader policy issues remain unresolved, schools still need student data to conduct daily operations and provide core educational instruction. This section categorizes how schools use student data, distinguishes between primary and secondary uses and identifies uses that warrant specific parental and student consent. We divide schools’ uses of student data into four categories: (1) administrative uses, (2) instructional uses, (3) education assessment and measurement uses, and (4) other optional or non-education categories.  

10 We recognize that this categorization may not provide a comprehensive taxonomy of data use in schools. For example, the Center of Law and Information Policy proposed breaking down the types of cloud services used by schools into seven categories, including school functions, classroom functions, student reporting and guidance. Joel Reidenberg et al., Privacy and Cloud Computing in Public Schools, Center on Law and Information Policy 17 (2013), http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1001&context=clip. However, this categorization provides a starting point to conceptualize student data use and consent generally.
Student Data: Trust, Transparency, and the Role of Consent

Administrative uses of student data are necessary for the everyday functioning of schools. Student information is used in order to facilitate student registration, class scheduling, guidance counseling, and keeping classroom attendance. Student data is needed to administer school lunch programs and busing services. Currently, schools share student data with various service providers, which provide software and data security and handle technical support. Such administrative functions facilitate and support schools’ core educational mission.

Student data is also essential for classroom instruction. Increasingly, teachers use technology and online services to support classroom learning. Students use online services to complete homework assignments, work collaboratively, and engage with their teachers and classmates. Teachers want to use online-learning programs to let them direct what students work on and can automatically adjust to student needs. New technologies not only enable personalized learning solutions that are tailored for every individual student, but they also can also improve how teachers engage with students one-on-one. But tailoring course curricula and improving teacher-student interactions to maximize student learning generates massive amounts of data; this requires schools to rely on technology providers, data management and analysis experts, and other support services.

Though there may be concerns about the efficacy of so much technology in the classroom, student data is clearly being collected and used for instructional purposes. Everyone understands that the context in which student data is collected is to facilitate a student’s education; indeed, using student data in this fashion is one of the key reasons schools need data in the first place.

Similarly, student data is also an essential tool to assess and measure the quality of education in schools. Student assessment data can provide timely feedback to teachers and schools to understand and address each student’s unique needs.

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14 A context-based approach to privacy was first explored by Professor Helen Nissenbaum, and the principle endorses evaluating data use based upon what individuals might expect given the circumstances of collection. It has since been embraced by the White House’s Consumer Privacy Bill of Rights.

15 While student data should be used to the benefit of the students, we must recognize that the analysis and use of student data may only indirectly benefit individual students. Use of student data for assessment and measurement may provide a bigger benefit to teachers and school systems and ultimately society at large than it will for any individual student. When it comes to data projects, better data benefit analysis is warranted.
learning needs, and can be important to identifying students who have special needs or academic gifts. Measurement data is also essential to improve and reshape teaching methods, course curricula, and classroom materials.\textsuperscript{16} Nearly every educational improvement effort or initiative depends on analyzing individual student information in order to measure effectiveness.\textsuperscript{17} In Kentucky, for example, regular high school feedback reports have altered how schools grade final exams and assign reading homework. “You can’t improve preparation for college if you don’t measure how kids are doing across the pipeline,” explains the executive director of Kentucky’s education data collaborative.\textsuperscript{18}

<table>
<thead>
<tr>
<th>Type of Use</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>Course scheduling, school busing</td>
</tr>
<tr>
<td>Instructional</td>
<td>Online homework, learning apps</td>
</tr>
<tr>
<td>Assessment and Measurement</td>
<td>Standardized tests, course assessments</td>
</tr>
<tr>
<td>Optional and Non-Educational</td>
<td>School yearbooks, PTA fundraising</td>
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While much of this student data is used as it has always been, many of these essential educational functions rely on the use of outside service providers or new technologies. Using vendors or new technologies is not new to the education space, but nonetheless, there are worries that the combination of more technology – and more student data as a result – and a reliance on school service providers has made it easier for student data to be used inappropriately.

The final category of data uses to address are those marketing, advertising, or other non-educational uses of student data by third parties. Student directory information, for example, can sometimes be used for a variety of marketing, advertising, or other similar non-educational purposes, and is frequently given to companies that manufacture class rings or public yearbooks. This category of uses should require additional parental choice, and the ability to opt-out of these uses is appropriate.

**The Choice Debate**

The introduction of new technologies and new uses of data in schools have generated new worries about how best to protect student privacy. These concerns are wide-ranging. Without considering how technology and data are...
used in schools, some critics have focused their concerns on whether outside service providers or vendors may be improperly “mining” or selling student data. Others worry about advertising or marketing in schools. This comes on top of concerns about the security of student data or the risk of data breaches.

Politicians have responded to these concerns with numerous legislative proposals across the country that attempt to address privacy concerns around student data. Many of these bills focus on governance measures, such as implementing chief privacy officers that can ensure privacy accountability at the state-level, but other proposals attempt to discourage the collection and use of data, specifically through new opt-in or opt-out requirements. Offering additional opportunities for parental choice attempts to address a number of different but related concerns about (1) data generated by new technologies that, while used by students and teachers, is in the hands of outside service providers, and (2) more broadly, data collected by schools, districts, and state education agencies that are used for assessments and to track education outcomes over time.

Parents play an essential role in education, and when it comes to the technology implementation and planning process at schools and school districts, they should be consulted and invited to participate in the decision-making process. However, many of these choice proposals may not actually bring parents into the decision-making process or meaningfully improve student privacy. Individual parents are not in a position to become independent technology auditors or learning pedagogy specialists in order to make the best possible choice about day-to-day educational instruction.

According to Professor Joel Reidenberg, who has been sharply critical of how schools have handled student privacy issues, providing opt-out mechanisms will not solve the problem because the “complexity and sophistication of the data uses would make it difficult for the average parent to know what they’re consenting to.” Elaborate consent requirements will overwhelm parents – and

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could seriously impair how schools function. Professor Dan Solove, who has also taken issue with how student data is protected, is skeptical of the ability of consent alone to meaningfully protect privacy. Demanding parental consent will only lead to “more buttons to click and more forms to sign,” which is compounded by the fact that most people hold “woefully incorrect assumptions about how their privacy is protected.”

### Unintended Consequences of Mandating Consent

- Administrators have to manage multiple systems to provide basic services.
- Teachers find classrooms divided between some students who are permitted to use various educational tools and others who are not.
- Students miss out on accessing valuable educational content.
- The results of classroom, school, and district assessments become skewed.

### Implications of Additional Parental Choice

Though well-meaning, parental consent requirements can place significant burdens on schools, and some of the legislative proposals being offered could have serious, unintended consequences, impacting school administration, day-to-day instruction, and any assessment of the quality of our education system.

### Impact on School Administration

Some proposals would require parental consent before any party can access or use student data, restricting even basic administrative tasks. As the Education Commissioner of New York explained, restrictions on basic information sharing would “render virtually impossible – or extraordinarily more expensive – much of the day-to-day data management of schools.” Schools would have to implement a bewildering assortment of different permissions. Administrators


would need to treat students differently based not on their educational needs but on whether a student’s data could ever pass out of their hands. The alternative would be to place administrators in the untenable position of needing to conduct basic administrative tasks with pen and paper, keeping records on index cards, or otherwise abandoning the use of technologies that make administration less time-consuming and more efficient.27

**IMPACT ON INSTRUCTION**

A system where each student has different permissions for each use of his or her data will have an enormous impact not just on school administration, but also on basic classroom instruction. Poorly considered consent requirements will take away learning opportunities from students. Students want a classroom environment that matches how they already use digital tools outside of school,28 but consent requirements will invariably hamper access to those technologies in the classroom. Personalized learning, in particular, will be difficult to implement as it relies on data from many different sources to function.

The development of these tools holds a tremendous amount of potential to reshape and improve education. Companies are creating adaptive courses of study to keep students engaged and learning, and personalized learning is driven by student data, which includes not just traditional classwork but also student attendance and behavior information, educational assessments, and school- and district-wide assessments.29

Further, the need to manage classrooms where certain students have access to certain instructional materials or technologies could create a logistical crisis for teachers. In individual classrooms, one student might be able to access could access online services, remotely use online textbooks, or otherwise take advantage of in-classroom technology while another student could not. Taken to the extreme, individual students might be able to access one educational tool but not another, throwing a teacher’s lesson plans into disarray. Teachers and administrators would have to constantly juggle classrooms and teaching instruction to account for which students are allowed to do what.

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Impact on Education Assessment and Measurement

Education systems rely on student data in order to assess students, teachers, and even classroom curricula. Essentially most educational advances will depend on student information in order to measure effectiveness and to determine the best improvement strategies. Opt-outs may bias or otherwise limit the sample sizes needed to plot a course forward, effectively compromising the ability of state and local officials to accurately measure education outcomes. When a significant portion of students are missing from a sample, any results would be skewed. This affects the ability to accurately evaluate educational programs, and potentially impacts the distribution of federal education grants and services, further hurting those schools and students most in need.

Exacerbating Inequality

Policymakers focused on the goal of bridging educational inequalities are increasingly looking at technology as a way to close the gap. Improving educational outcomes has long been a core public policy challenge, and despite decades of education reforms and increased spending, inequities continue to exist across much of our educational system from graduation rates and basic college readiness. Many of the new tools and efforts are aimed at discovering problems early on, measuring those problems, and then using technology to better understand how to best intervene on a student’s behalf.

Privacy advocates often worry that privacy will be based on socioeconomic class: the wealthy will pay for privacy-protection services, while the poor will be obligated to trade their data for free services. In the education field, however,
the converse may prove true, if efforts to demand opt-in or opt-out provisions for key education technologies are successful and leave the disadvantaged without access. Private schools are increasingly going “all in” with technology, taking advantage of new services to offer blended learning options and online classrooms for their students.\textsuperscript{36} Affluent public school districts are also invested in bringing new technology into the classroom.

Lower income school children need every opportunity to access these same tools to identify their learning needs and to personalize opportunities for individual improvement if they are to compete with their peers. Access to technology is something that can function as a social equalizer if students from low-income neighborhoods can use the same digital content as students from upper-middle-class schools and districts.\textsuperscript{37} But if parents are encouraged to opt-out or if less engaged parents simply do not opt-in to services, the very technology that is being proposed to narrow the educational divide could lead to that gap widening.\textsuperscript{38}

**Security Concerns**

Opt-out proposals are frequently designed to address worries about the use of cloud services in schools. The general worry is that cloud services create privacy and security risks simply by making data accessible via the web,\textsuperscript{39} and as a result, parental consent should be necessary before school’s take that risk. Alternatively, some critics have suggested that schools simply host their own systems instead of relying on outside digital storage or email services. Many school districts do just this, but it comes with significant security responsibilities and other costs that stress the capacity of most schools and districts.


\textsuperscript{38} The integration of technology in schools must also be done carefully to avoid perpetuating biases and discouraging achievement. Educators and service providers must ensure that they remain sensitive to the diverse backgrounds of students even as they develop and use technologies in the classroom.

As many Fortune 500 companies holding sensitive banking or health data have determined, relying on the security protections of outside companies that can deploy hundreds of staff and first class security tools can far exceed the capabilities of individual companies. Compared to large businesses, schools have far less funding and technical expertise. Even large school districts are hard pressed to keep up with the continual security alerts, patches, and updates needed to maintain secure systems of their own, and as a result, schools have seen a direct benefit by relying on the expertise of outside parties and remotely hosting student data.

Building and hosting more complicated data management tools that offer detailed learning analytics becomes an even more challenging proposition for schools. For schools to, in effect, opt out of using these services simply because parents are given the option to opt out does little to protect student privacy. Schools should not need to use their own employees to build their own data centers, develop their own educational apps and platforms, and run their own email systems – let alone do so securely – and it would be counterproductive for them to do so.

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40 These challenges are compounded by the wide-ranging differences in the size and wealth of individual school districts. The decentralization of education has proven problematic in the field of information technology. For example, in Oklahoma, education officials viewed consolidating information technology functions across the state as a key way to lower costs: Michael McNutt, *Oklahoma Officials Offer Consolidation of Information Technology Services to School Districts*, NewsOK (Feb. 7, 2013), http://newsok.com/oklahoma-officials-offer-consolidation-of-information-technology-services-to-school-districts/article/3753067.

41 Ben Kamisar, *InBloom Sputters Amid Concerns About Privacy of Student Data*, EdWeek (Jan. 7, 2014), http://www.edweek.org/ew/articles/2014/01/08/15inbloom_ep.h33.html (“The issue is, now we have to either build or do [a request for proposals] for ‘middleware’—‘data-management tools similar to what inBloom provides’—‘because you need storage of data, and you need learning analytics that integrate the data and connect it to standards and grade-level expectations,” Ms. Stevenson said. “When you are going to do the work from scratch, it’s a whole different world.’) In these cases, the technical expertise is not so much about security, but about engineering, as well as software and instructional design; and the resource capacity is more about scale across multiple users both to support the development investment as well as the continuous improvement.