

Privacy and Cloud Computing in Public Schools

Research Team

Joel R. Reidenberg

Microsoft Visiting Professor of Information Technology Policy, Princeton
Stanley D. and Nikki Waxberg Chair and Professor of Law, Fordham
Academic Study Director

N. Cameron Russell.

Executive Director, Fordham CLIP

Jordan Kovnot

Privacy Fellow and Interim Director (through July 2013), Fordham CLIP

Thomas Norton

Project Fellow, Fordham CLIP

Ryan Cloutier

Project Fellow, Fordham CLIP

Daniela Alvarado

Dean's Fellow, Fordham CLIP

Introduction

- ***Private vendors are gearing cloud services specifically for the education sector to advance data-driven decision-making and IT based learning opportunities***
- ***Cloud services in K-12 schools are increasingly becoming contentious as a result of privacy issues***
- ***The treatment of privacy when K-12 public schools transfer or share student information with cloud service providers is generally unknown to the public***

Goals

- *Provide national picture of cloud computing in public schools*
- *Assess how public schools address FERPA, COPPA and PPRA requirements as well as generally-accepted privacy principles in their cloud service agreements*
- *Make recommendations on the protection of privacy that address any problems identified by the research*

Methodology

- ***National Sample***
 - **Selection of Districts: 2 large, 2 mid-size, 2 small from each U.S. census geographic division (54 total)**
 - ***Document Collection***
 - Phone calls
 - Open public record act requests
 - Web sweeps
 - ***Documents Sought***
 - Agreements involving transfer of student data
 - Computer use policies for teachers/staff
 - Notices to parents about student privacy
 - Notices to parents about cloud computing services
 - ***Data Set***
 - Respondents: 23 districts
 - Data set: 20 districts

Methodology

• Analytic Approach

- **Checklist based on statutory obligations + FIPS norms**
- **Research team coded documents based on checklist**
- **Purpose: general assessment, not compliance audit of any responding district nor any vendor**

General Findings

- ***95% of districts outsource student data***
- ***Wide diversity of cloud services in use across every type of school***
- ***Typology of cloud services***
 - **Data analytics functions**
 - **Student reporting functions**
 - **Guidance functions**
 - **Special school functions**
 - **Hosting/Maintenance/Back Up functions**
 - **Classroom functions**
 - **Unidentifiable functions**

General Findings

- ***Weak transparency***
 - Absence of publicly available information
 - Districts failed to respond to public records requests
 - 55% of districts did not provide parental notice; only 25% addressed cloud computing explicitly
- ***Obstacles to Public Disclosure***
 - Ignorance of district's use of technology
 - Attitude
 - “I have real problem [sic] with you using this law to complete a research project ... thank you for your abuse of the system and wasting our time”
Letter from Superintendent (Western Region School District) to Professor Reidenberg
 - Dubious motives
 - High fee request
 - Illegal confidentiality clause in contract

General Findings

- ***Weak Data Governance and Contracting Practices***
 - **Poor in-house understanding of student privacy implications**
 - **20% of districts had no policies addressing teacher use of IT**
 - **Vendor agreements allow sharing to recipients without privacy policies**
 - **Agreements allowed for vendors to make unilateral modification without notice**
- ***Poor Documentation***
 - **Rampant gaps in contract documentation, e.g. unexecuted agreements, missing appendices describing privacy policies, etc.**

Analysis of Agreements

- ***Prevalence***
- ***Contracts***
- ***Types of student identifying data transferred to vendors***
- ***Data control: sharing, mining, and re-disclosure***
- ***Parental notice, consent and access to collected data***
- ***COPPA obligations***
- ***Data Security***

Analysis of Agreements

- ***Prevalence***

Data analytics functions:	25% of districts
Student reporting functions:	25% of districts
Guidance functions:	25% of districts
Special school functions:	25% of districts
Hosting/Maintenance/Back Up functions:	50% of districts
Classroom functions:	50% of districts
Unidentifiable functions:	25% of all agreements

Analysis of Agreements (Selected Findings)

- ***Contracts***

Attribute	Frequency Weakest for Privacy	Frequency Strongest for Privacy
Fully executed agreement	50% (Guidance)	100% (Analytics; Student Reporting)
Incomplete agreements	55% (Special functions)	17% (Guidance)
Right to audit and inspect vendors' compliance	0% (Guidance; Special functions)	33% (Analytics)

Analysis of Agreements (Selected Findings)

- ***Types of student identifying data transferred***

Attribute	Frequency Weakest for Privacy	Frequency Strongest for Privacy
Specifies any type of data	11% (Special functions)	83% (Guidance)

Analysis of Agreements (Selected Findings)

- ***Data Control***

Attributes	Frequency Weakest for Privacy	Frequency Strongest for Privacy
Purpose specification	0% (Student reporting, Hosting, Classroom)	22% (Analytics)
Prohibition on re-disclosure	33% (Special functions)	89% (Analytics)
Prohibition on sale or marketing of student information	0% (Analytics, Student reporting, Special functions, Guidance)	7% (Hosting)
Allows vendor to amend unilaterally	67% (Guidance)	11% (Analytics)

Analysis of Agreements (Selected Findings)

- ***Parental Notice, Consent and Access***

Attributes	Frequency Weakest for Privacy	Frequency Strongest for Privacy
Notice provided	0% (Guidance, Student Reporting)	36% (Classroom function)
Consent	0% (Student reporting)	41% (Classroom functions)
Access	0% (Student reporting)	17% (Guidance)

Analysis of Agreements *(Selected Findings)*

- ***COPPA Triggers***

Attribute	Frequency Weakest for Privacy	Frequency Strongest for Privacy
Specification that service collects data from children	0% (Student reporting, Guidance)	20% (Hosting)
Specification that service enables tracking of children	0% (Student reporting, Guidance)	14% (Classroom functions)

Analysis of Agreements *(Selected Findings)*

- ***Data Security***

Attribute	Frequency Weakest for Privacy	Frequency Strongest for Privacy
Requirement for data deletion at end of contract	0% (Special functions)	67% (Analytics)
Requirement for data security	22% (Special functions)	78% (Analytics)
Requirement for data breach notification	0% (Special functions, Student Reporting, Guidance)	13% (Hosting)

Recommendations

• *Transparency*

- Existence and identity of cloud service providers should be available on district websites
- Notice to parents

• *Contracting practices*

- Districts need executed agreements
- Districts need complete documentation

• *Data Governance*

- Districts must establish policies and implementation plans for the adoption of cloud services by teachers and staff
- Districts must address directly and publicly policies on use of student data for advertiser supported services when not prohibited by FERPA
- States and larger districts must have CPO

Recommendations

• *Contract Terms*

- **Specification of the purpose of agreement and the authority to enter into the agreement**
- **Specification of the types of data transferred or collected**
- **Prohibition or limitation on re-disclosure of student data**
- **Prohibition or limitation on the sale or marketing of student information without express parental consent**
- **Assurance that districts have exclusive control over data access and mining**
- **Prohibition on new or conflicting privacy terms when parents are required to activate an account for their child**
- **Allocation of responsibilities for granting parental access and correction capabilities**

Recommendations

• *Contract Terms (continued)*

- **Specification of whether foreign storage and processing is allowed**
- **Specification of whether other gov't agencies may have access**
- **Specification of data security and breach notification**
- **Prohibition on unilateral modifications**
- **Inclusion of a right for the district to audit/inspect vendors**

• *Creation of a National Research Center and Clearinghouse*

- **Prepare academic and policy research**
- **Convene stakeholder workshops**
- **Draft model contract clauses, privacy notices and consent forms for common functions**
- **Create repository for research, model contracts, and policies**