



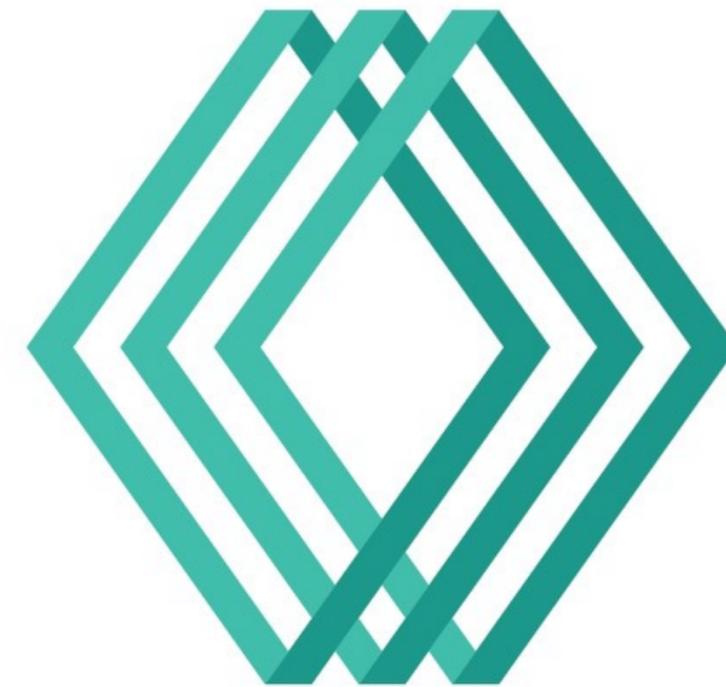
**IMPACT LAB**

# **Student Data, For Students? Data Flows in Education**

July 31, 2015

# About Us

- Data Science Consulting Firm focused on the social sector.
- Spun out of the Data Science for Social Good Fellowship ([dssg.io](http://dssg.io))
- Four Labs: Education, Energy, Nonprofit Operations, Field Data Collection.
- Me: KIPP NJ, DSSG, Obama, and Tacos. (@hunter\_owens)



**IMPACT LAB**

# Jargon Alert

Education has a lot of random acronyms. If I say something and you don't know what it is, stop me and I'll answer.

## Why?

- Schools have “Wide Data” on their students - know a little bit about everything.
- Khan, etc. have “Deep Data”. They will always have a better mousetrap. The rate of growth in online edtech is increasing.
- As educators/schools, how do we help students
  - 1) understand their data? (hard to scale with only people)
  - 2) match them to appropriate resources.

## But first, a Detour.

- Into the School Information System (SIS).
- The Central Data Repository/Warehouse for a School. Big names in Powerschool, Infinite Campus, Skyward.
- Charts, Graphs, History: <https://medium.com/@prsmith2009/journey-into-the-center-of-the-world-of-student-information-systems-cea16d464597>

## Key Data Lives in the SIS

- “If the SIS isn’t ship shape, Johnny’s not getting into Harvard.”
- Grades
- Assessments
- Attendance
- Rich, Rich Data.

# Data Workflow, in Schools

- Students Produce the Data.
- Teachers enter it into a system (SIS).
- SIS administrators make reports to Admins, who report to State.
- Sidebar: the SIS exists to do state reporting.

# Data Consumers





# Other Data Sources

School lunch tracking

Survey data

Staff/teacher data (HR)

Teacher development / coursework

Facilities, Accounting & Budget

# Internet Sources

Different type of Data Source:

Sample:

Lauren Plagge, Linear Algebra, Kahn Academy

04-18-2015 8:13am Watched 'Matrix Multiplication' Video

04-18-2015 9:45am mastered 'Matrix Multiplication' objective

04-18-2015 9:45am struggling on Linear Algebra objective

# More Thoughts on Integrating School Data

- Existing standards such as CEDS, EdFi
  - Nobody can use these standards- because there is no tooling.
  - The Standard doesn't actually help- still can't authenticate myself against a school's data.
  - The Vendors benefit/profit from lock-in and therefore make the systems hard to use.

# New Testing and Growth Curves

- How Testing used to work: “You are a third grader proficient at Math”
- Now, with new exams: “You have mastery over these specific” subjects - common core.
- Additive vs Summative tests. New type of data.
- Teachers and Students need to understand and act on all these new metrics.

# The New Data Consumer



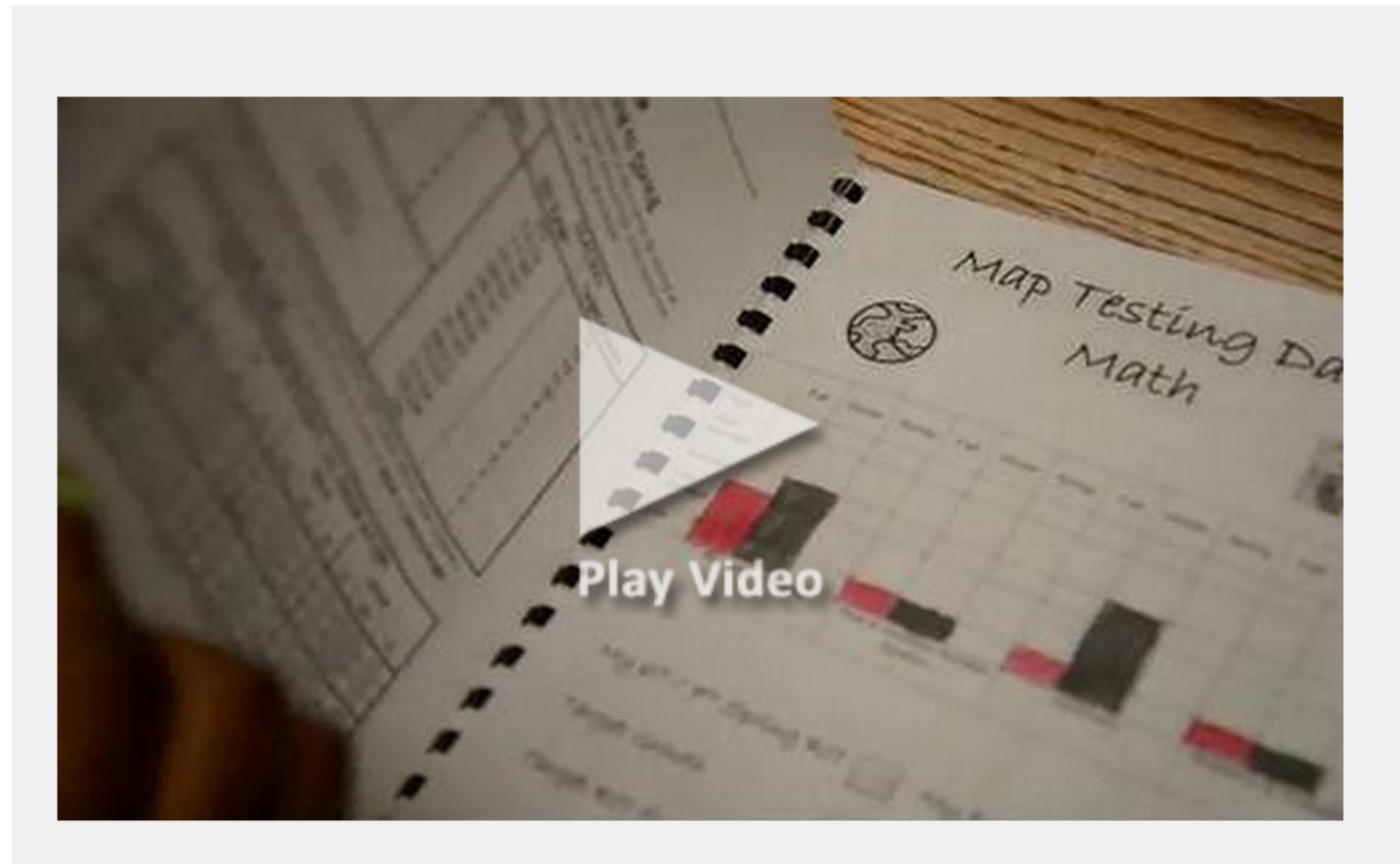
## Teachers

- How many of my students grew a level on the last literacy assessment?
- Who is on-track to make yearly college-ready growth? not on track?

## Students

- How do I get into College?
- What does this MAP score mean? This SAT score?
- When do I need to do x assignment.

# 8thgrader.js





“Only 54% of teachers perceive the digital products their students use frequently to be effective.”

- TeachersKnowBest Report

## What we are building

- An integrated, web based data Platform for Students
- Think [mint.com](https://www.mint.com) or Fitbit for College Readiness
- Helps students understand their data, their progress. Lives alongside, not replacing curriculum. Student focus is in the DNA of KIPP.
- Community Support (CFA, Somerville Public Schools), first major student facing data project in Education.



## EdTech Environment

- Most Products avoid integrating with the SIS
- Lots of this philosophy/blog post inspired by CFA: <http://daguar.github.io/2014/03/17/etl-for-america/>
- We're building open source education tools. Both at CFA and elsewhere. Work with us. Build with Schools, not for Schools.



IMPACT LAB

# Thanks!

Please reach out! Hunter Owens ([hunter@theimpactlab.co](mailto:hunter@theimpactlab.co) or [twitter.com/hunter\\_owens](https://twitter.com/hunter_owens))



**IMPACT LAB**

**The Science of Doing Good.**