Lead with Learning
Placing Students at the Heart of the Matter
WELCOME
Transform the ordinary into the extraordinary

@Catlin_Tucker
10.29.15
We believe that our contribution to unlocking our collectively brighter future lies with the application of our deep understanding of *how learning happens* and *how the mind develops*.

It exists where the science of learning meets the art of teaching.
How do we empower students to find information, get excited about learning, and own that moment?

@Catlin_Tucker

10.29.15
What is the purpose of research?
Introduction: Definition

“TO SEARCH”

to gather evidence

to learn something new

to solve a problem

to improve an experience

“TO MARK OUT”
The Structure of Scientific Revolutions
The nature of **LEARNING** is changing.
changes everything
Approximately 2,000 of America’s high schools produce half of the nation’s school dropouts. Over one third of all dropouts are lost in ninth grade.

"Are the brightest minds working on the most important problems?"

- Bill Gates

What’s your talent?

A lack of student engagement is predictive of dropping out, even after controlling for academic achievement and student background.

The nature of LEARNING is changing.

Computers have always come with a CD-ROM.
What we know about **LEARNING** is changing.
The nature of LEARNING is changing.

Over one third of all dropouts are lost in ninth grade.

Approximately 2,000 of America's high schools produce half of the nation's school dropouts.

"Are the brightest minds working on the most important problems?"

- Bill Gates

The brain is an ever-changing part of the human body.

Neuroscience

The Brain as a Jungle

The brain is an ever-changing part of the human body.
Talk about a scientific revolution.
Intelligence is not fixed at birth.
Experiences wire our brain.
Our job is to design solutions that provide rich learning experiences.
**Substitution**
Tech acts as a direct tool substitute, with no functional change

**Augmentation**
Tech acts as a direct tool substitute, with functional improvement

**Modification**
Tech allows significant task redesign

**Redefinition**
Tech allows for the creation of new tasks, previously inconceivable
Equity in the Classroom
Leveling the Playing Field through Personalization
What does EQUITY mean in the classroom?
Johnathan
Why not Johnathan?
EQUALITY ≠ EQUITY
High expectations, quality instruction and personalized supports is Equity.
PERSONALIZATION
Personalization

What comes to mind?
Personalization

Student Engagement and Co-Design through Choice

1. **Path**
2. **Pace**
3. **Progress**
4. **Mode/Medium**

**Student-Centered Learning**

- Authentic Assessment (regular diagnosis through learning maps/algorithms and platforms for data capture)
- Modular Content (Content is “unbundled” and can be delivered via multiple modalities)

Multiple Delivery Methods & Modalities
Who makes the decisions?

How are the decisions made?
Personalization is a simple elegant blending of learner, teacher, and technology informed learning ecosystem.
Personalization
Power Players
Problem/Project Based Learning
Newsome Park Elementary (Newport News, VA)
Personalized Learning Plans
Minnesota New Country School
(Henderson, MN)
Advisory
Metropolitan Arts & Tech High School
(San Francisco, CA)
How Technology Supports the Power Players...
Path and Pace

- Systems that adapts to learner needs
Progress: Formative Assessments

• Increasing the frequency of formative assessments
Collaboration

• Approaches that turn learners into collaborators and creators
Just-In-Time Feedback for Students

• Near-real-time feedback to parents/students/teachers:
• Customizing instruction based on performance/preference
What does EQUITY mean in the classroom?
We must teach the way students learn, rather than expecting them to learn the way we teach.

~ Pedro Noguera