

Rigorous Learning with Technology

Kristin Fontichiaro

University of Michigan School of Information

Download slides: bit.ly/fontblog

SLAQ @ Cairns
18 August 2013
1:00 – 2:30pm



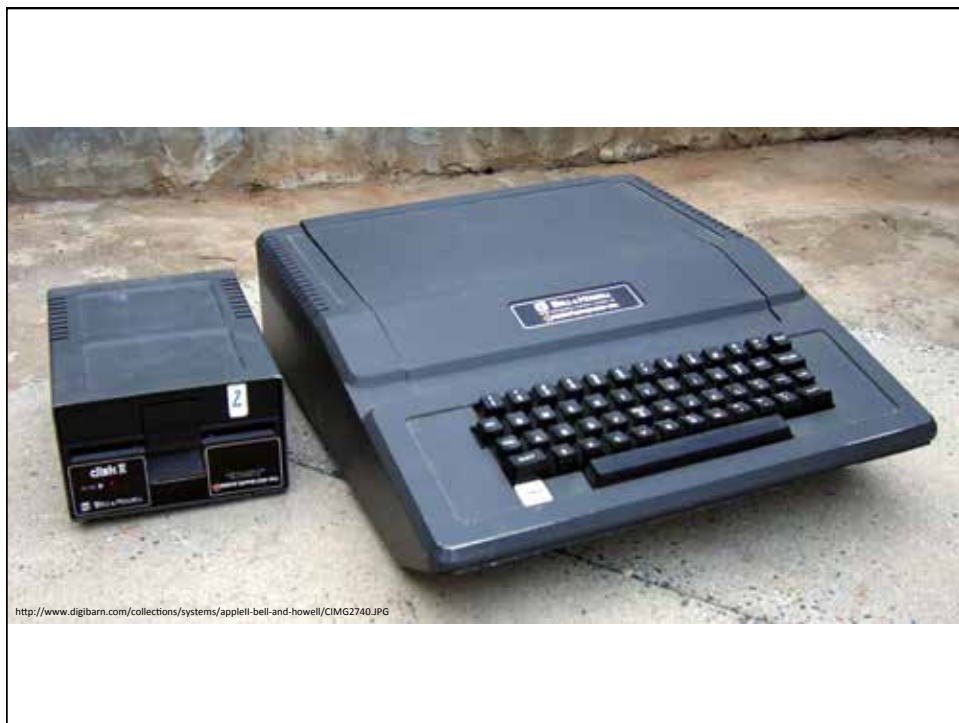
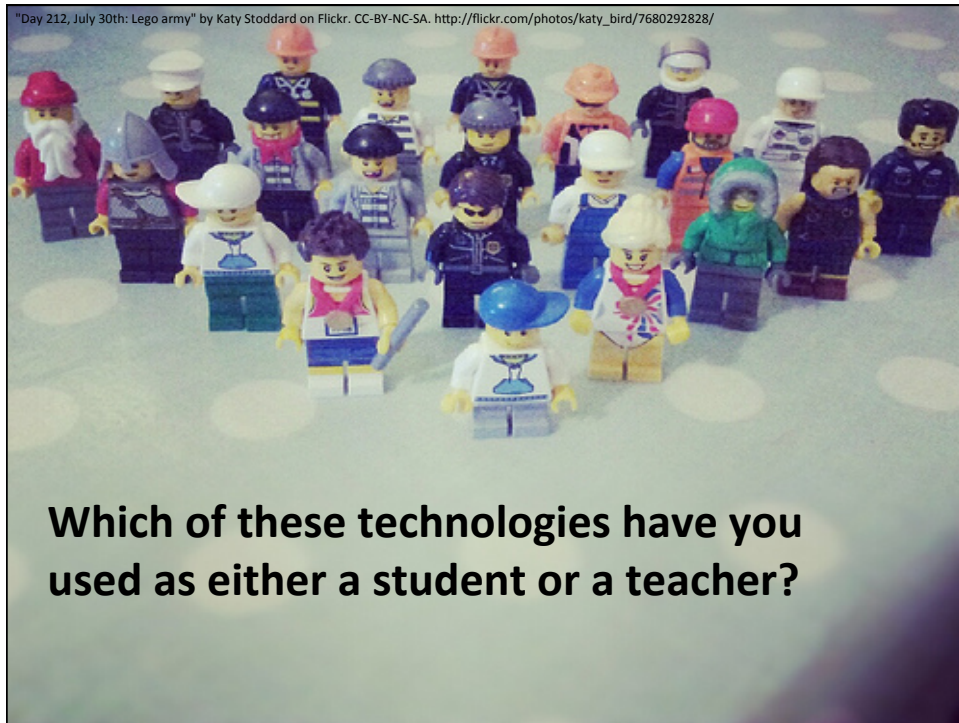
"student_ipad_school" by Kristin Fontichiaro on Flickr
<http://flickr.com/photos/ksfonti/6660032124/>

Big Questions Road Map

Today

- What have we learned in our 35 years of bringing ed tech into the schools?
- How can we develop building-wide vocabulary to discuss tech-rich, thinking-rich work with one another?
- How do we go beyond, "Make a video! Be creative!" to identify and communicate what "good work" looks like in various multimedia genres?

Download today's slides:
<http://bit.ly/fontblog>









TURN AND TALK:

How have past technology initiatives improved student learning?

What made them succeed?

Where have we fallen short?

How far have we come in using computers to promote cognitive growth in the past 35ish years?



Image: http://en.wikipedia.org/wiki/File:Bell_and_Howell_Apple_II.jpg by Jeff Keyzer, used with a Creative Commons Generic Attribution 2.0 License



THEN

Paucity & High Cost
Careful Selection of Tools

NOW

Abundance & Low/No Cost
Careful choice doesn't matter...
Or does it?



<http://bit.ly/bridger-ipad>



TURN 'N' TALK!

If a two year-old can use an iPad, what are the implications for our work?

Image: 'whoa' <http://www.flickr.com/photos/54021469@N00/653976303>



I would add ... what does reading mean to this kid?

What does an iPad represent to him?

What are *those* implications?

Image: 'whoa' <http://www.flickr.com/photos/54021469@N00/653976303>

Turn and Talk

- **How effectively are we teaching students...**
 - to interpret the world beyond text?
 - to create multimedia products that effectively convey messages and content understandings?
 - about employing compelling aesthetics
 - about multimedia genres?

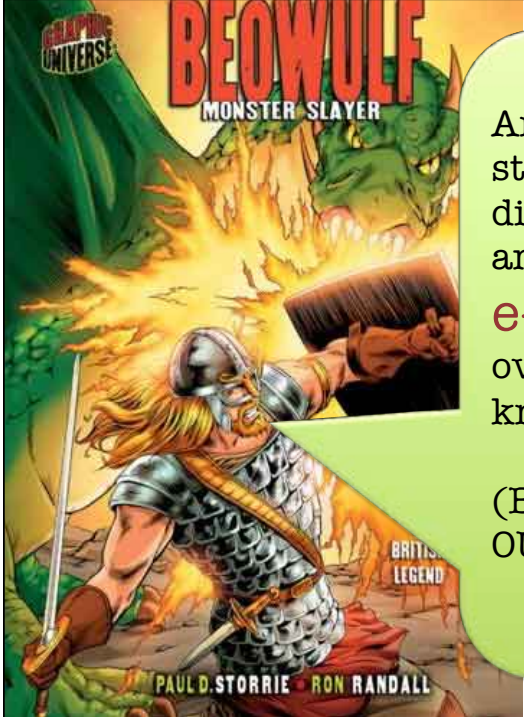
"Fossil Sitting in Sunlight" by A Guy Taking Pictures on Flickr. CC-BY.
<http://flickr.com/photos/80901381@N04/7649502498/>

*It's so easy to
make things look
fancy...*

**...that sometimes we credit
students what programmers
behind the scenes have
actually facilitated.**

(Little input > Big output)





And sometimes, our students expend a disproportionate amount of **e-effort** over knowledge-building.

(BIG INPUT > LITTLE OUTPUT)

**Let's look at a student work sample.
Which do you see: Fancy Nancy or E-Effort?**



"Funny - A Hoot by @Doug8888 on Flickr. CC-BY-NC-SA
<http://flickr.com/photos/doug8888/3295094303/>



**My Explorers
Report!!!!!!**
**BY KRISTIN
FONTICHIARO**



Christopher
Columbus
was born in
1461.



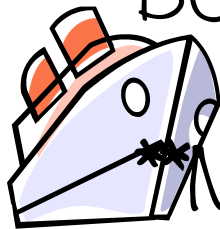


HE WAS
BORN
IN
ITALY.

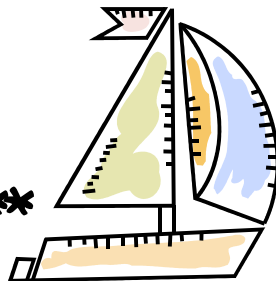


HOME OF PIZZA!!!!!!! yum!!!!

HE HAD THREE
BOATS:



NINA



PINTA



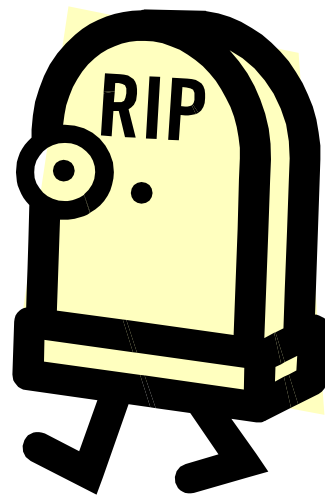
SANTA MARIA


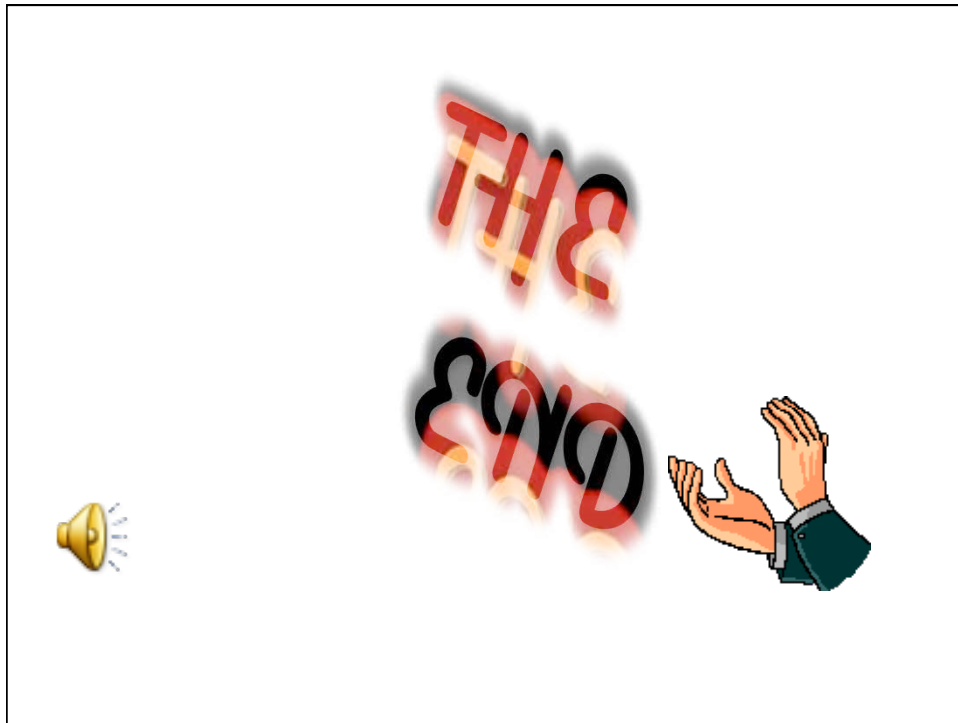


He
discovered
AMERICA!!!

He died in 1506.

It was sad.





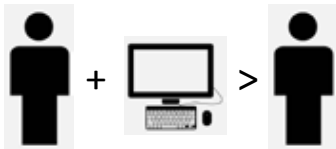
What are students gaining from this experience?

Yes, they're using technology, but where is the knowledge-building?

Image: 'Question mark made of puzzle pieces'
<http://www.flickr.com/photos/10361931@N06/4273168957>

ED TECH MATH

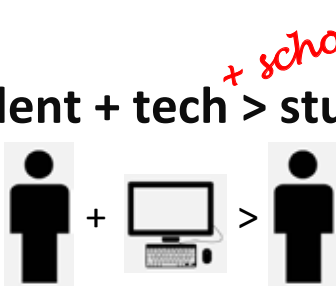
student + tech > student



* Charles Friedman, definition of Informatics

ED TECH MATH


student + tech ^{+ school} > student



* Charles Friedman, definition of Informatics


ED TECH MATH

student + tech ^{+ school} > student *

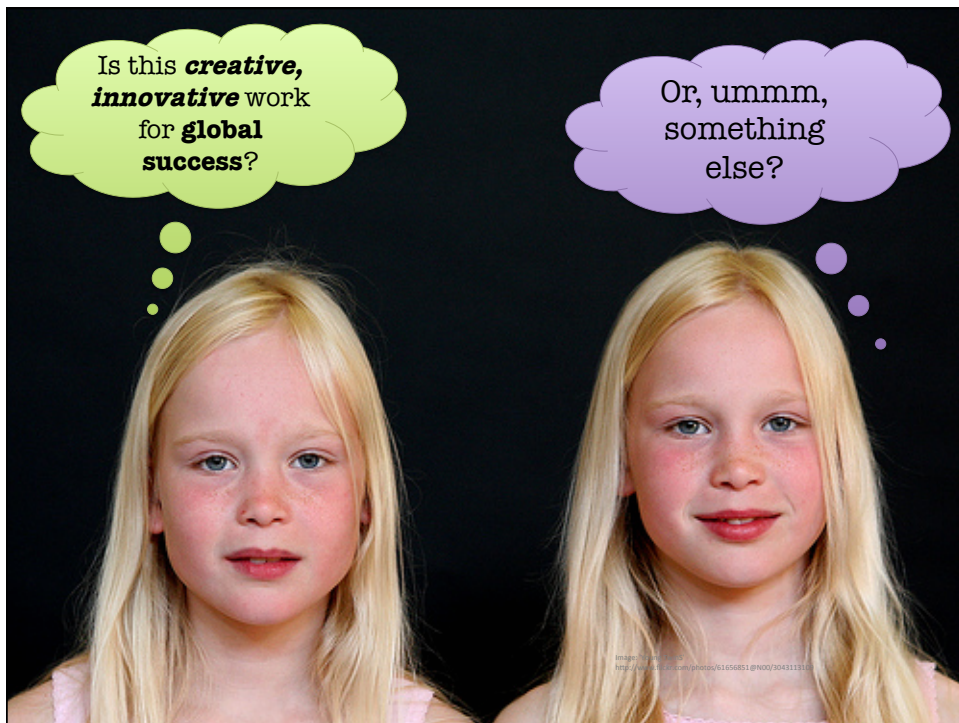


Beware: if student + tech can succeed on their own, we're all out of a job.

* Charles Friedman, definition of Informatics



Which parts of this project could NOT be outsourced to India? (And who would buy it?)





Where's the Beef?*

How Do We Know ~~Rigor~~ When We See It?

*vigor***

* Bernajean Porter; ** Joanne Yatvin

Norms Matter.



"Harrison Roses" by Susan Noakes McCord, around 1860.
From the collection of The Henry Ford.
http://www.thehenryford.org/exhibits/quiltinggenius/quilts/73_120_1.asp



Quilt for Bobby Unser by "Racing's Quilt Lady" Jeanette Holder.
From the collection of The Henry Ford.
<http://www.thehenryford.org/exhibits/pic/2010/may/quilt.asp>

**You can't just
push away
the uncertainties;
you have to
push through
them."**

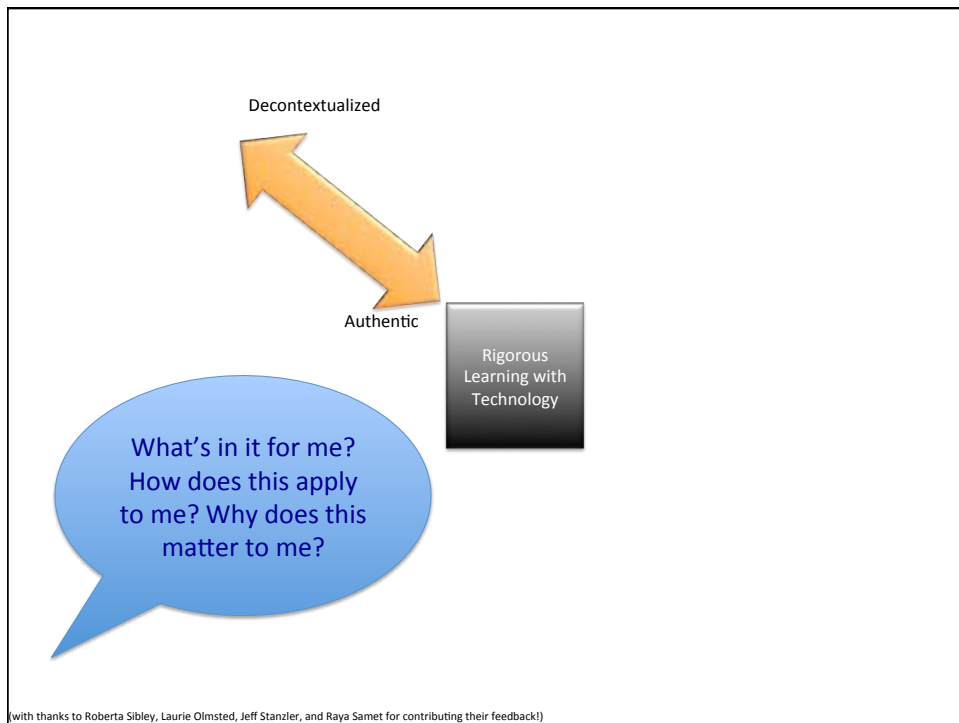
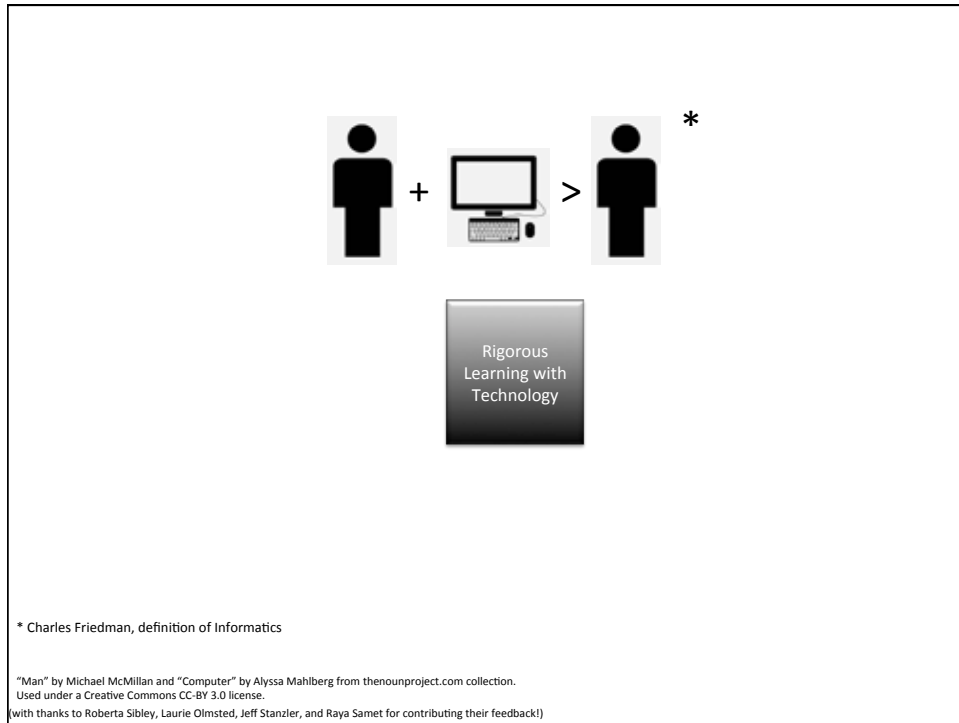
-Jeff Stanzler

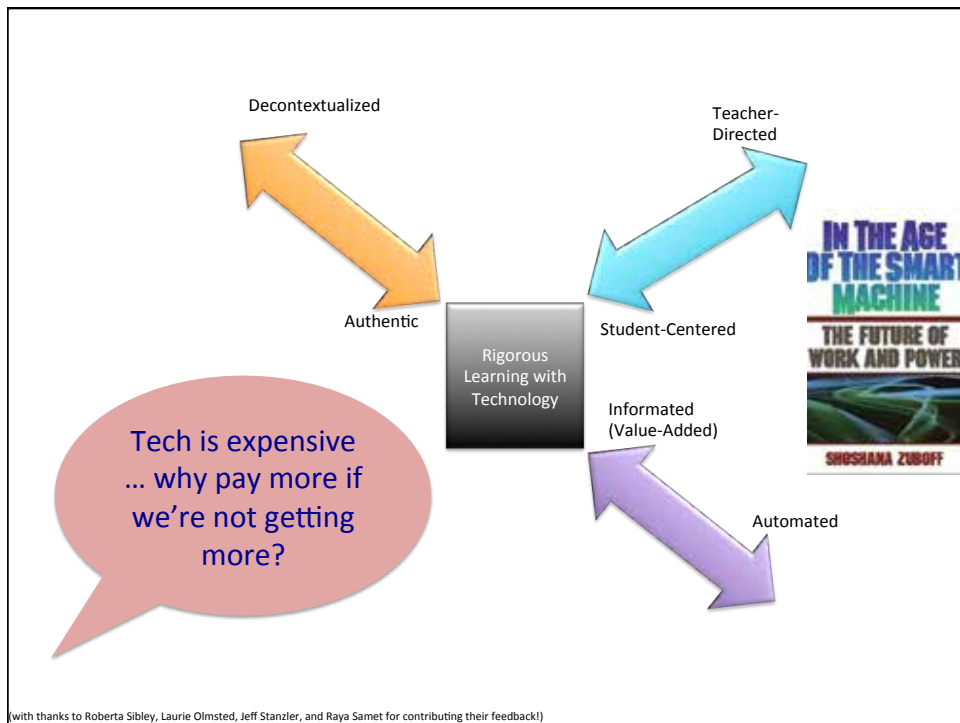
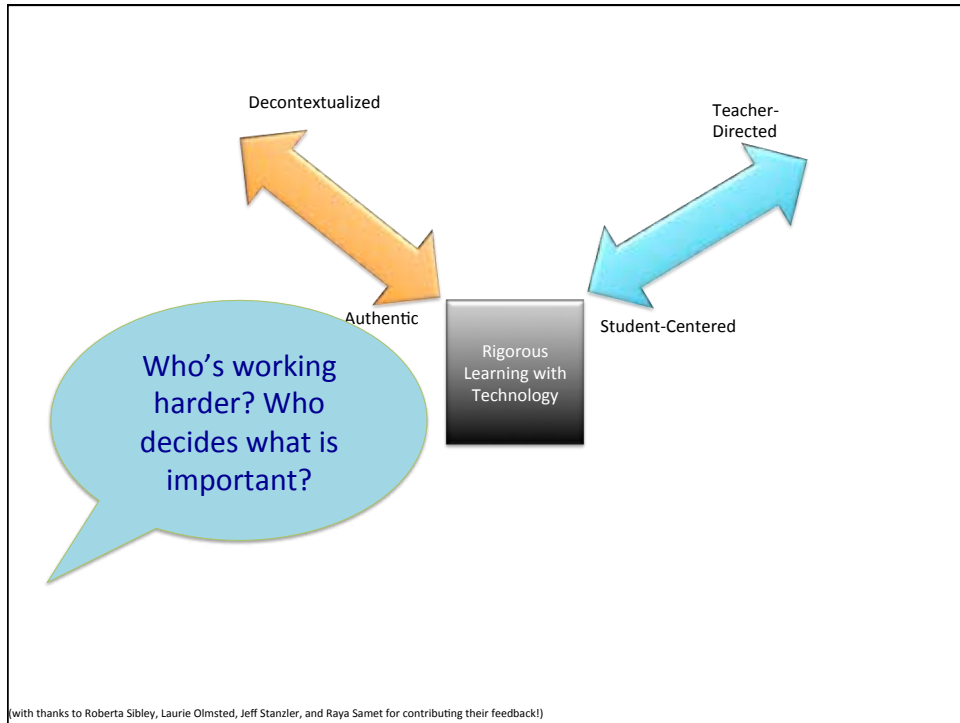
So I started pushing

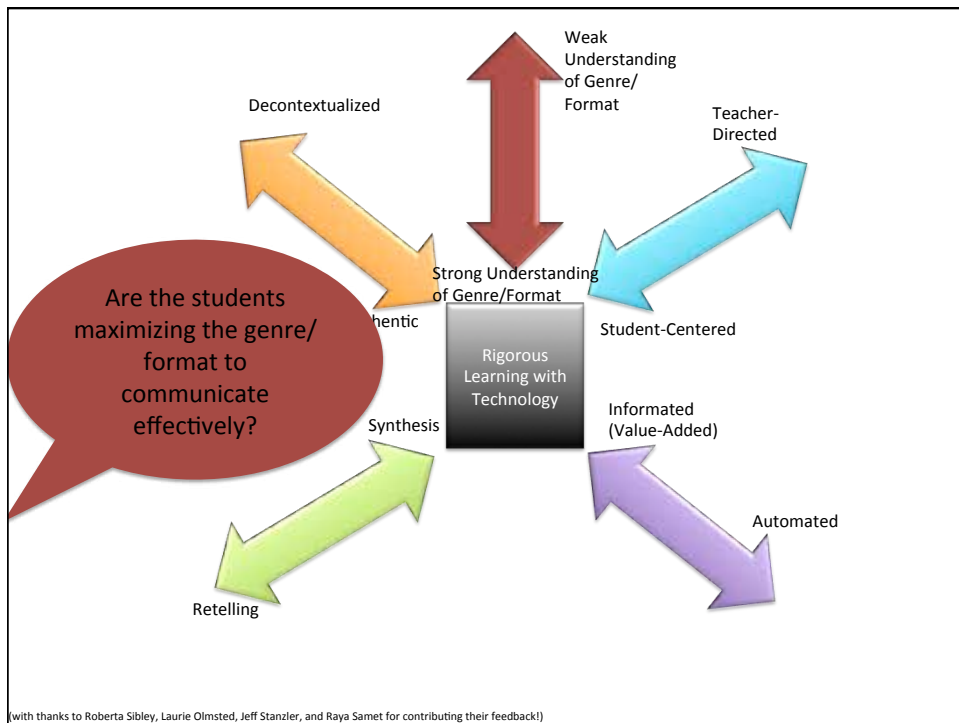
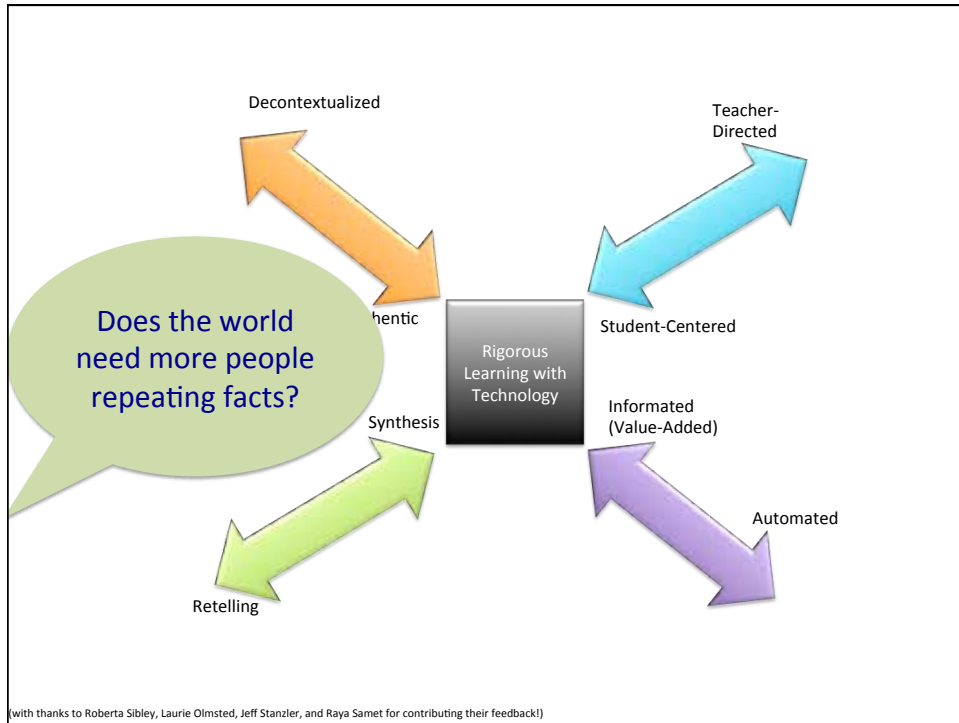
Rigor means exciting
challenge, not rigor
mortis! Insert VIGOR
if you prefer*

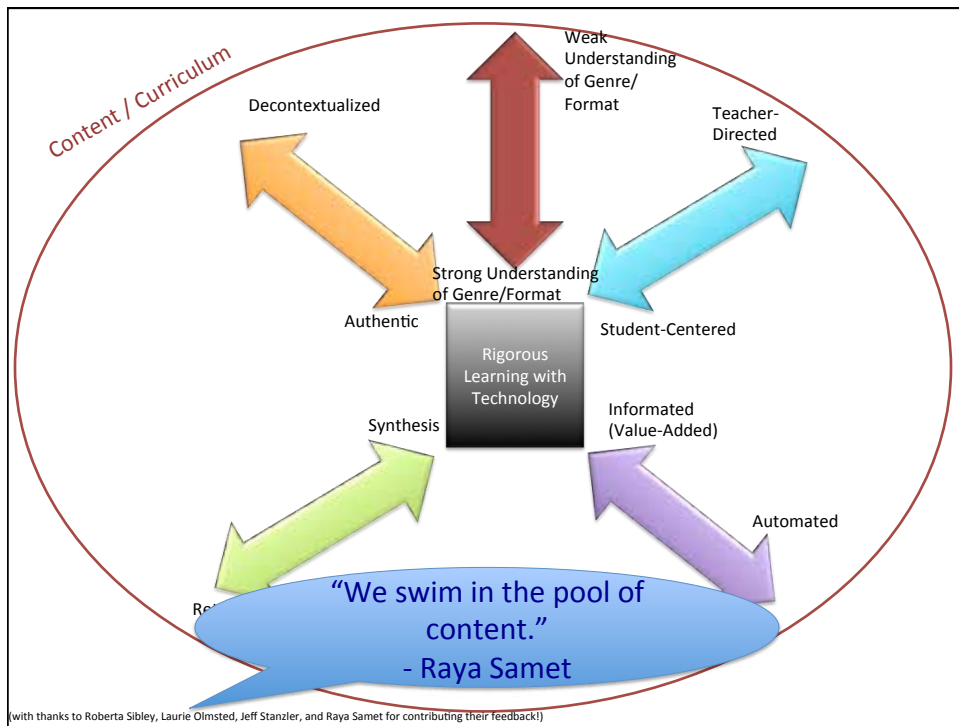
Rigorous
Learning with
Technology

(with thanks to Roberta Sibley, Laurie Olmsted, Jeff Stanzler, and Raya Samet for contributing their feedback!)













In Maria's science class, students conduct experiments in small groups. Then, they go to the class wiki, where Maria has already set up a table with a row where each group can report its data. By pooling data onto a single table, students can clearly see if their data follows the patterns of other groups.



Sofia's
Animal
Report



[http://bit.ly/
sofia-otter](http://bit.ly/sofia-otter)



Hamlet
goes to high
school



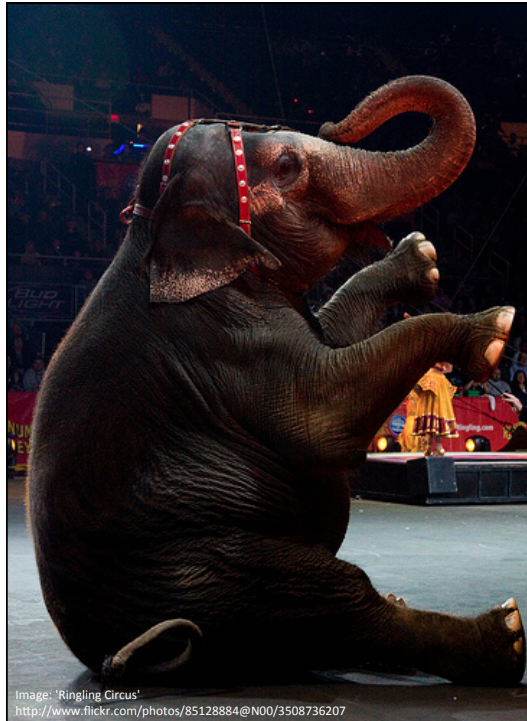
bit.ly/hPn588



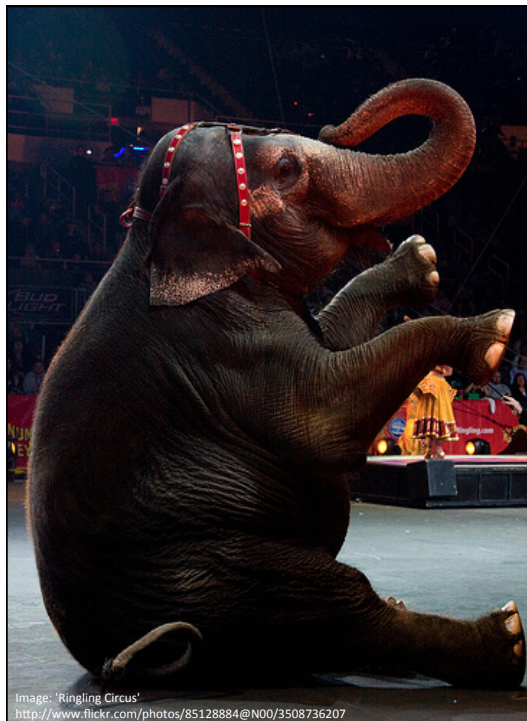
Reflective Blogging

Fred's students are required to blog weekly for history class. They summarize what they have learned and then are asked to think about how what they are learning relates to their lives today.

As part of their blogging task, they comment on one another's blogs. Fred has led discussions about productive commenting practices.



**Do we
have time
for a
Grand
Finale?**



**How could we
improve these
projects?**

- reflective blogging
- science data wiki
- Sofia's animal report
- *Hamlet* report

Takeaways

1. Develop common tech integration vocab
2. Tech can be a game-changer. What game do you want it to change?
3. E-Effort and Brain Effort are different!

'Riced out.'
<http://www.flickr.com/photos/65694461@N00/350982994>

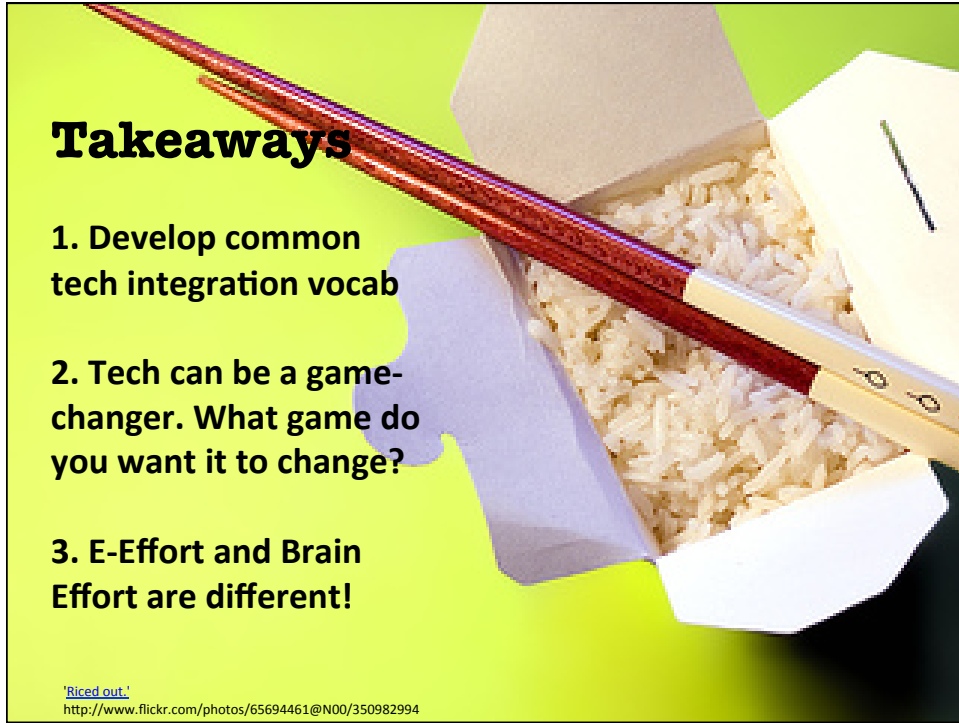


Image: 'CRACKER JACK'
<http://www.flickr.com/photos/49889874@N05/6462355313>



Door Prizes!

Questions?

font@umich.edu

@activelearning

<http://bit.ly/fontblog>

Site:cherrylakepublishing.com fontichiaro

