



Rigorous Learning with Technology

Kristin Fontichiaro

font@umich.edu

@activelearning

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

**Congratulations
on what you've
accomplished
with technology!**



<http://www.digibarn.com/collections/systems/appleII-bell-and-howell/CIMG2740.JPG>

Image: 'hardcore gaming at the office'
<http://www.flickr.com/photos/35448539@N00/5229554976>

Lemonade
15¢

COPYRIGHT 1979 APPLE COMPUTER INC.





http://bebetocool.files.wordpress.com/2010/06/macintosh_classic.jpg



AMERICA[®]

Cineline[®]



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



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

WHOA!

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

Today's Road Map

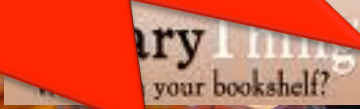
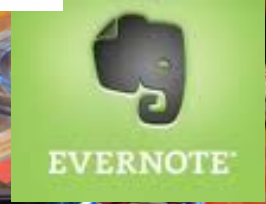


- **An Unfocused Lens:**
The Dizzying Choices
- **Refocusing Our Lens:**
What Do We Mean by Rigor?
- **Testing Our Lens:**
Student Work Samples



An Unfocused Lens: Dizzying Choices

The Web 2.0 Candy Store



THEN

Paucity & High Cost
Careful Selection of Tools

NOW

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



Refocusing Our Lens:

**What Do We
Expect Students
to Accomplish
with Technology?**

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)



Fancy Nancy (O'Connor)



Check out
this Twitter
Parade!



[http://bit.ly/
twitterparade](http://bit.ly/twitterparade)

<http://bit.ly/twitterparade>

Twitter Parade



Let's parade with twitter people!

Twitter ID Keyword

activelearning

START

2,093,934 parades have played by now

Let's Parade!!!



Popular Parade

[sandwich](#) [内閣](#) [world cup](#) [トイデジ](#) [hot](#) [南アフリカ](#) [ラーメンOR麺](#) [ニュース](#)
[LOVE](#) [なう](#)

#isparade on  RT @shinyoung_park See twitter parade by keyword

Little
input,
big
output.



Fancy Nancy (O'Connor)



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

(BIG INPUT > LITTLE OUTPUT)



My Explorers Report!!!!!!!

By Kristin

Fontichiaro



*Christopher Columbus
was born in 1461.*





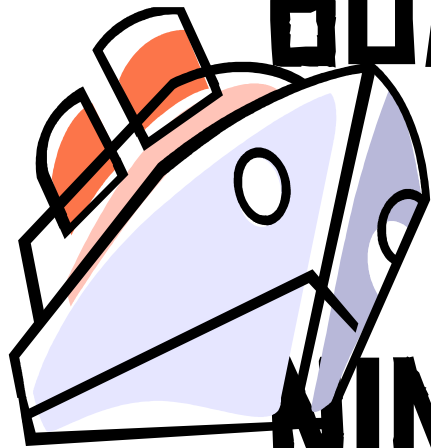
**He
was
born
in
Italy.**



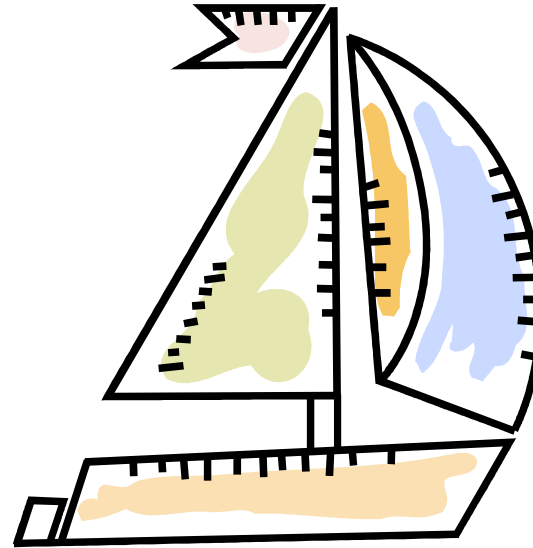
HOME OF PIZZA!!!!!!! YUM!!!!

HE HAD THREE

BOATS:



NINA



PINTA



SANTA MARIA



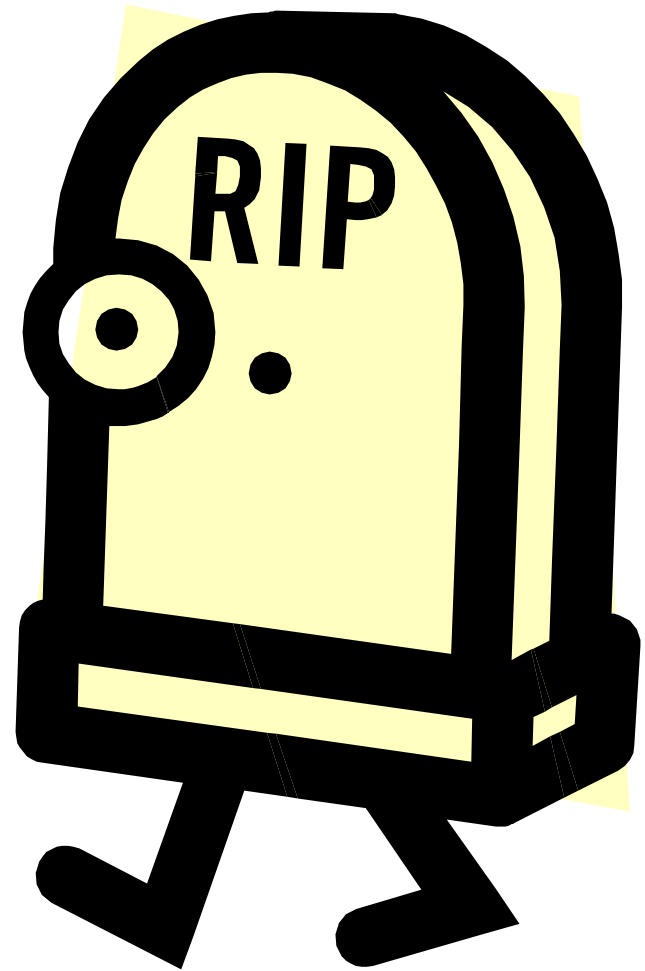
He

discovered

AMERICA!!!

He died in 1506.

It was sad.



THE
END



Turn and Talk:

What letter grade
would you give this
assignment?

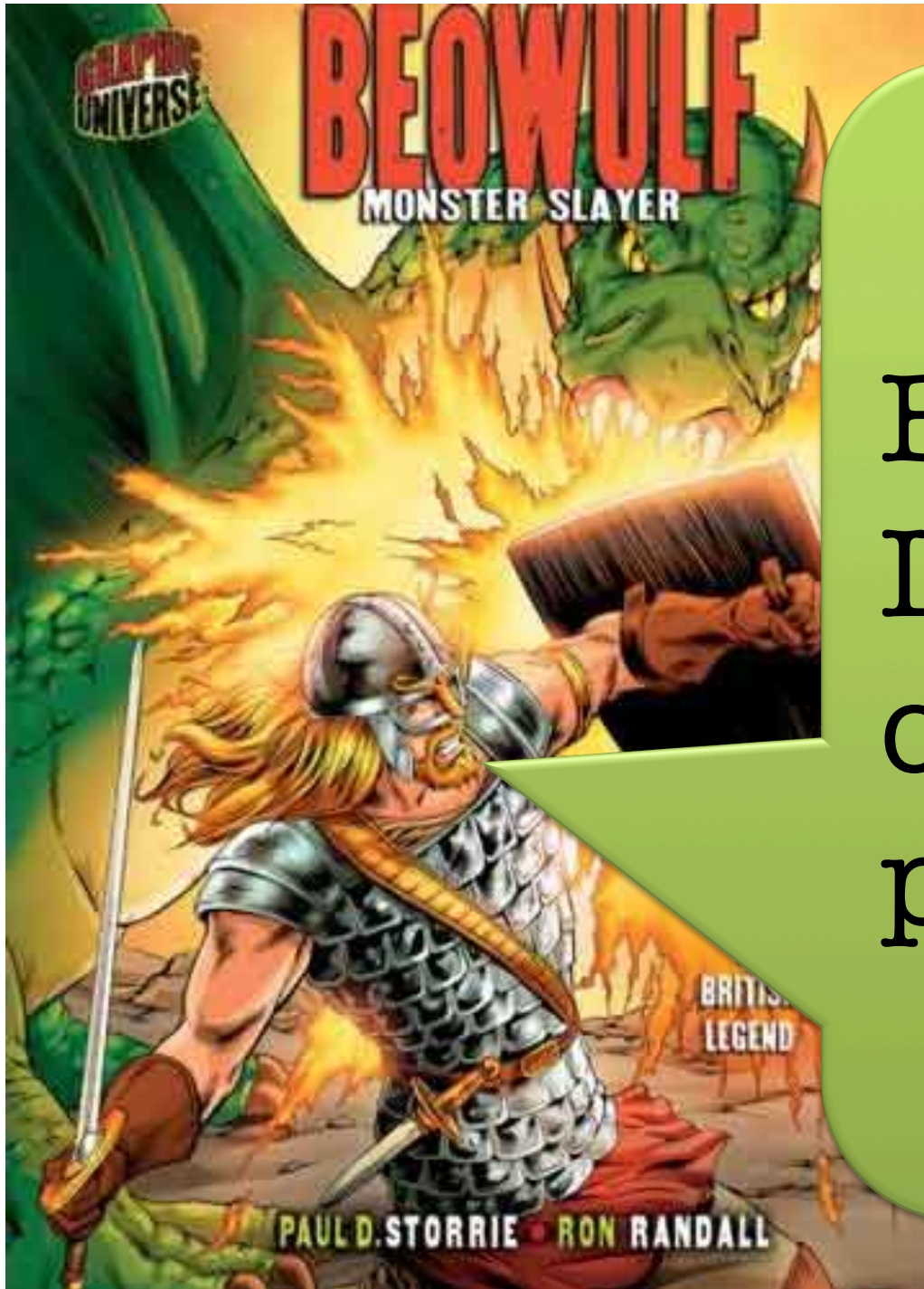
Why?

Balance?



**TIME FOR RESEARCH
& THINKING**

**TIME FOR
TECHNOLOGY**



Big input,
Little
output,
people.



My Country Report!!!!!!!

By Kristin

Fontichiaro





My Battle Report!!!!!!

By Kristin

Fontichiaro





My Mammal Report!!!!!!!

By Kristin

Fontichiaro





Where's the Beef?*
How Do We Know ~~Rigor~~ When We See It?
*vigor***

* Bernajean Porter; ** Joanne Yatvin

student + tech + school > student + tech

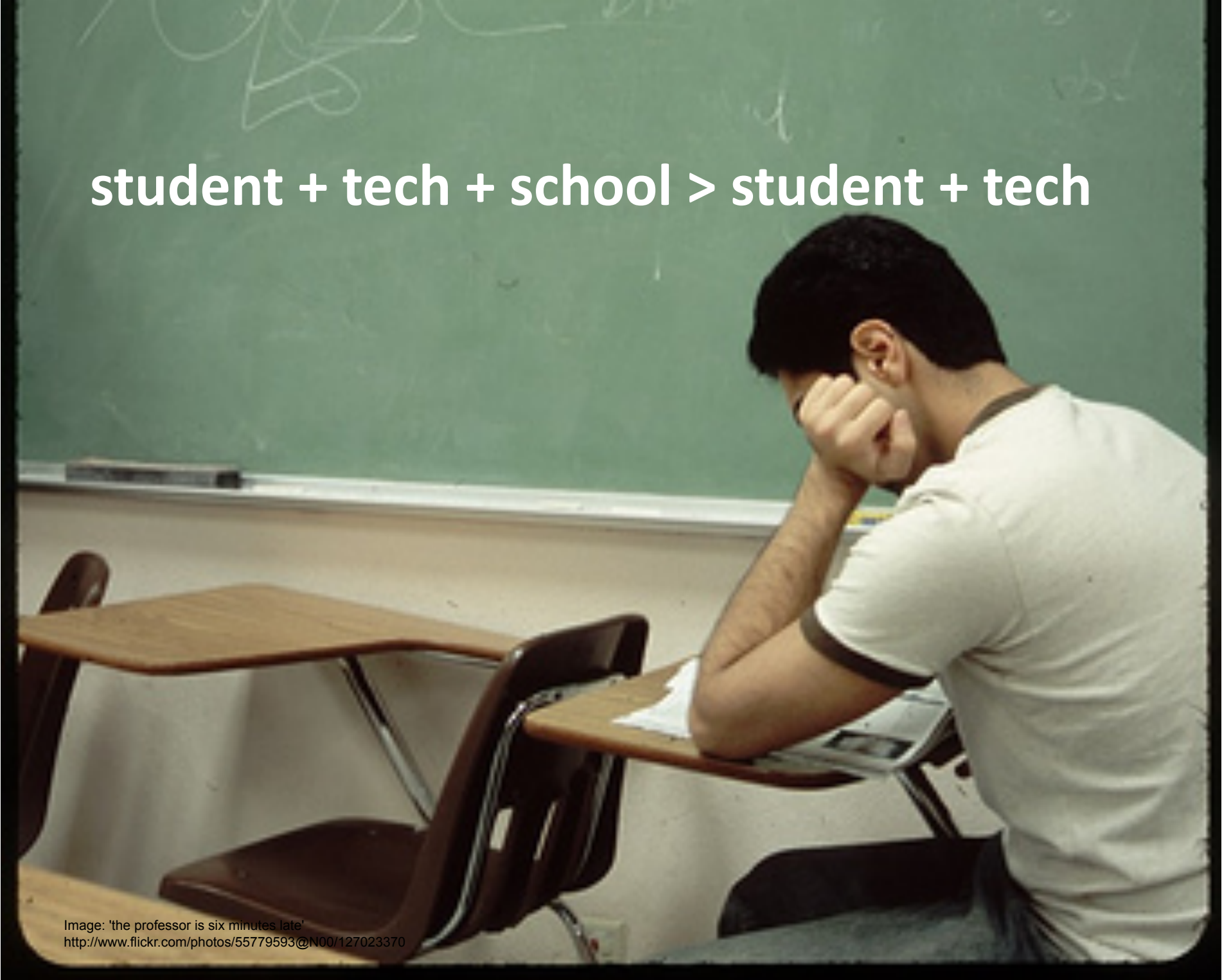


Image: 'the professor is six minutes late'
<http://www.flickr.com/photos/55779593@N00/127023370>

**A building staff
should have consensus
on what good tech work
looks like at school.**




Image: 'the professor is six minutes late'
<http://www.flickr.com/photos/55779593@N00/127023370>


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

-Jeff Stanzler

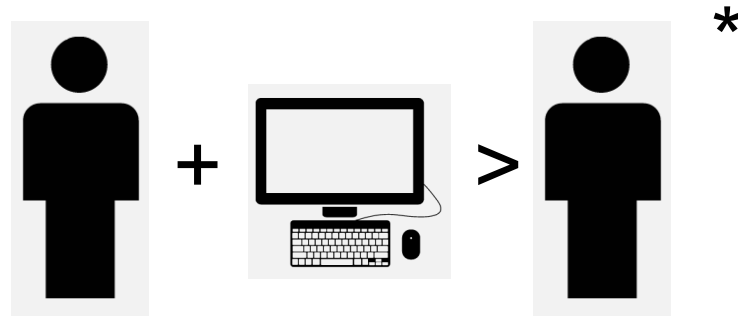
So I started pushing



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



Rigorous
Learning with
Technology



Rigorous
Learning with
Technology

* Charles Friedman, definition of Informatics

"Man" by Michael McMillan and "Computer" by Alyssa Mahlberg from thenounproject.com collection.
Used under a Creative Commons CC-BY 3.0 license.

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

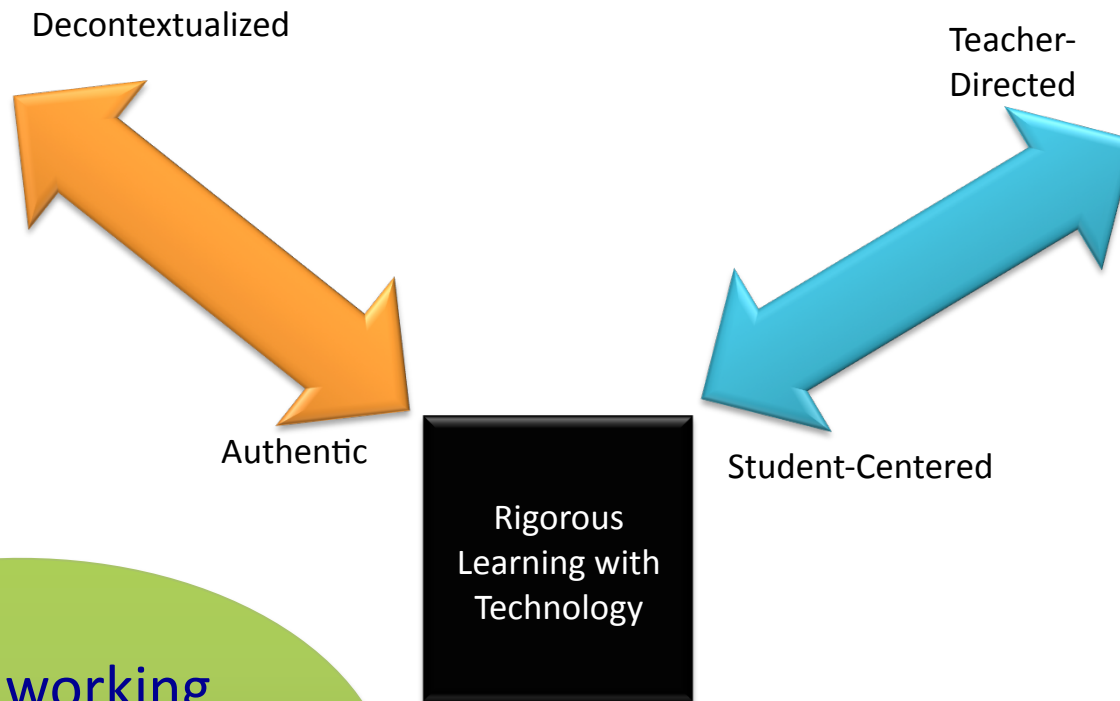
Decontextualized



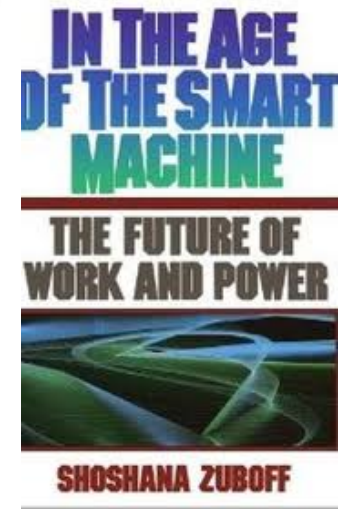
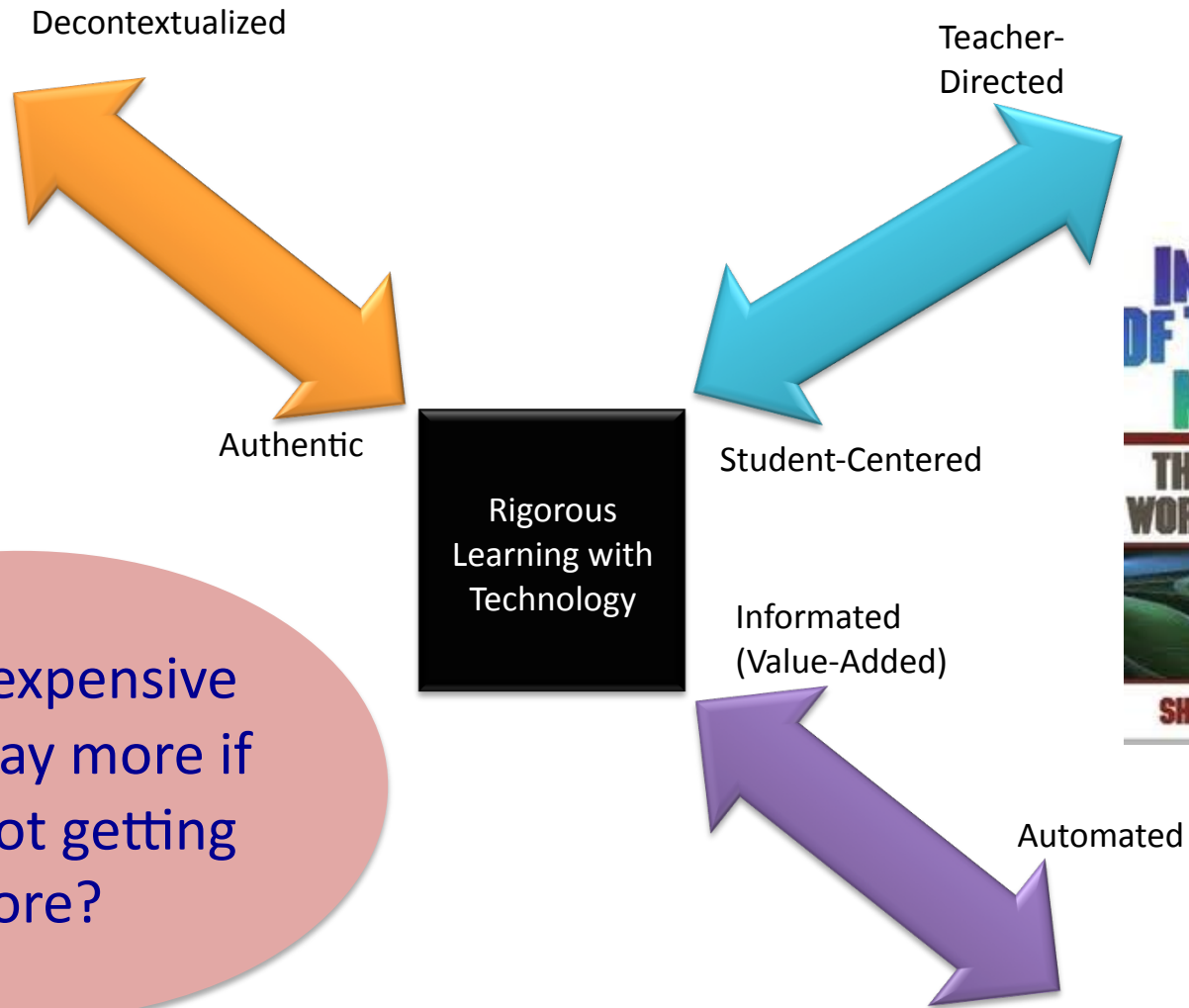
Authentic

Rigorous
Learning with
Technology

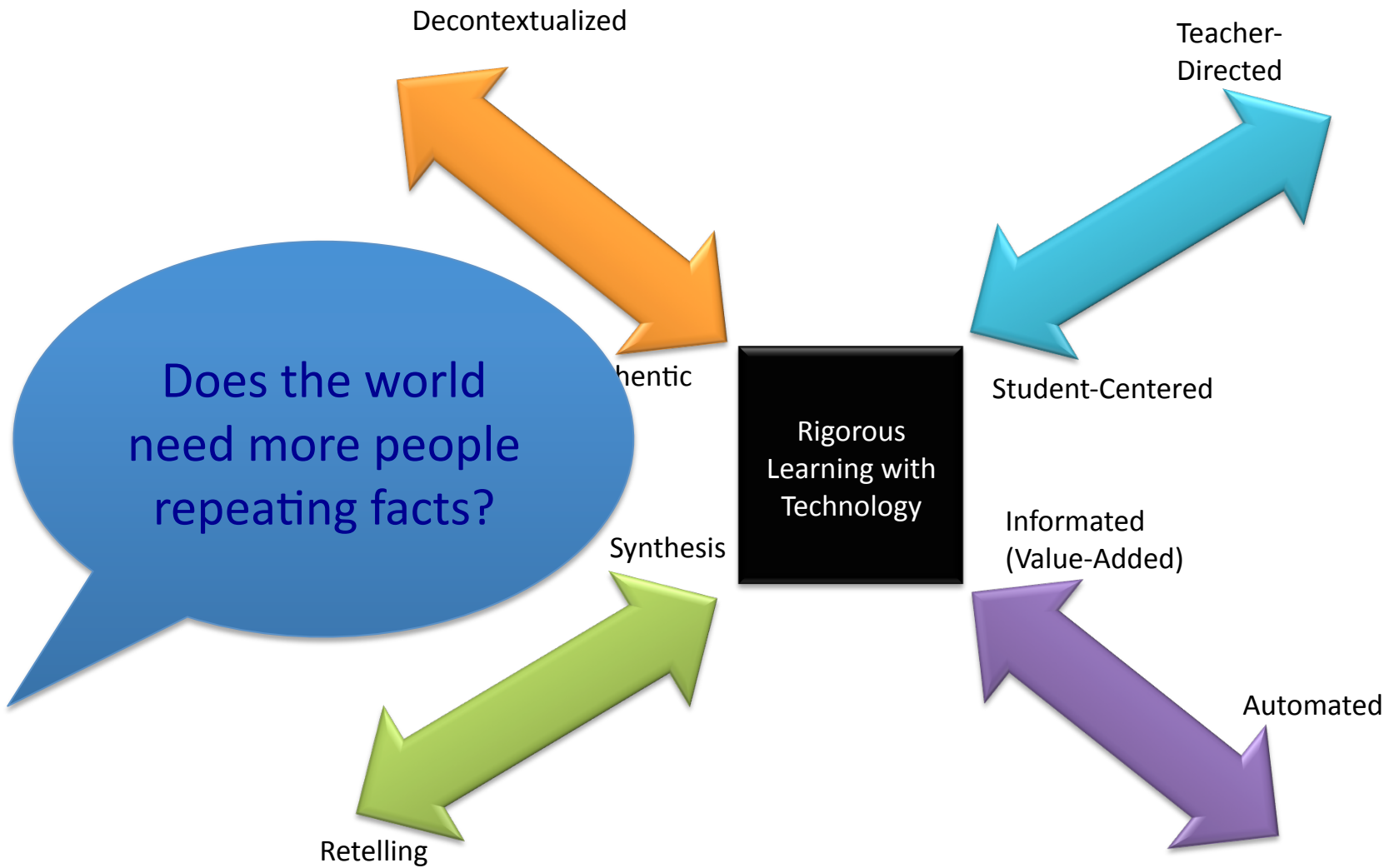
What's in it for me?
How does this apply
to me? Why does this
matter to me?



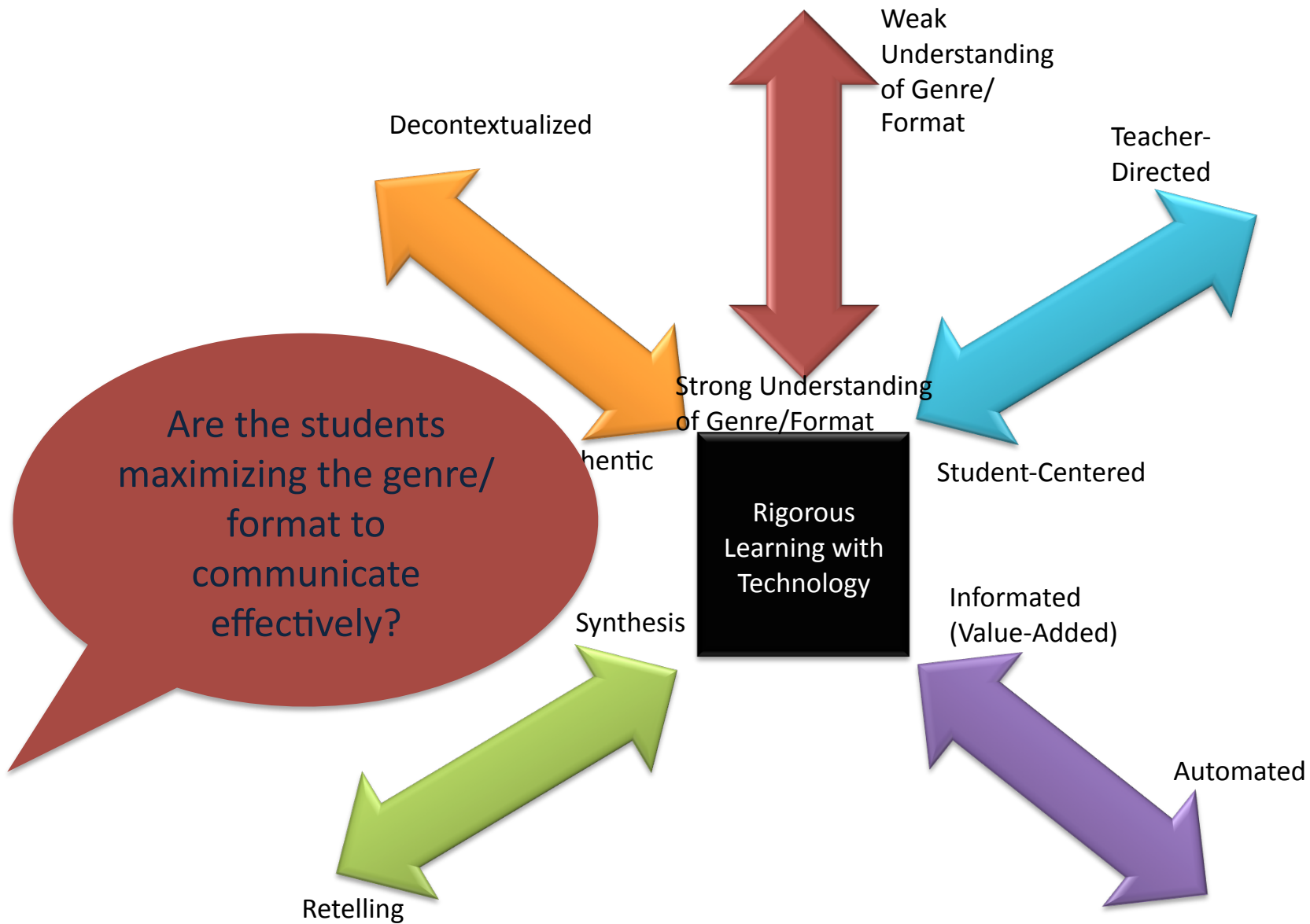
Who's working harder? Who decides what is important?



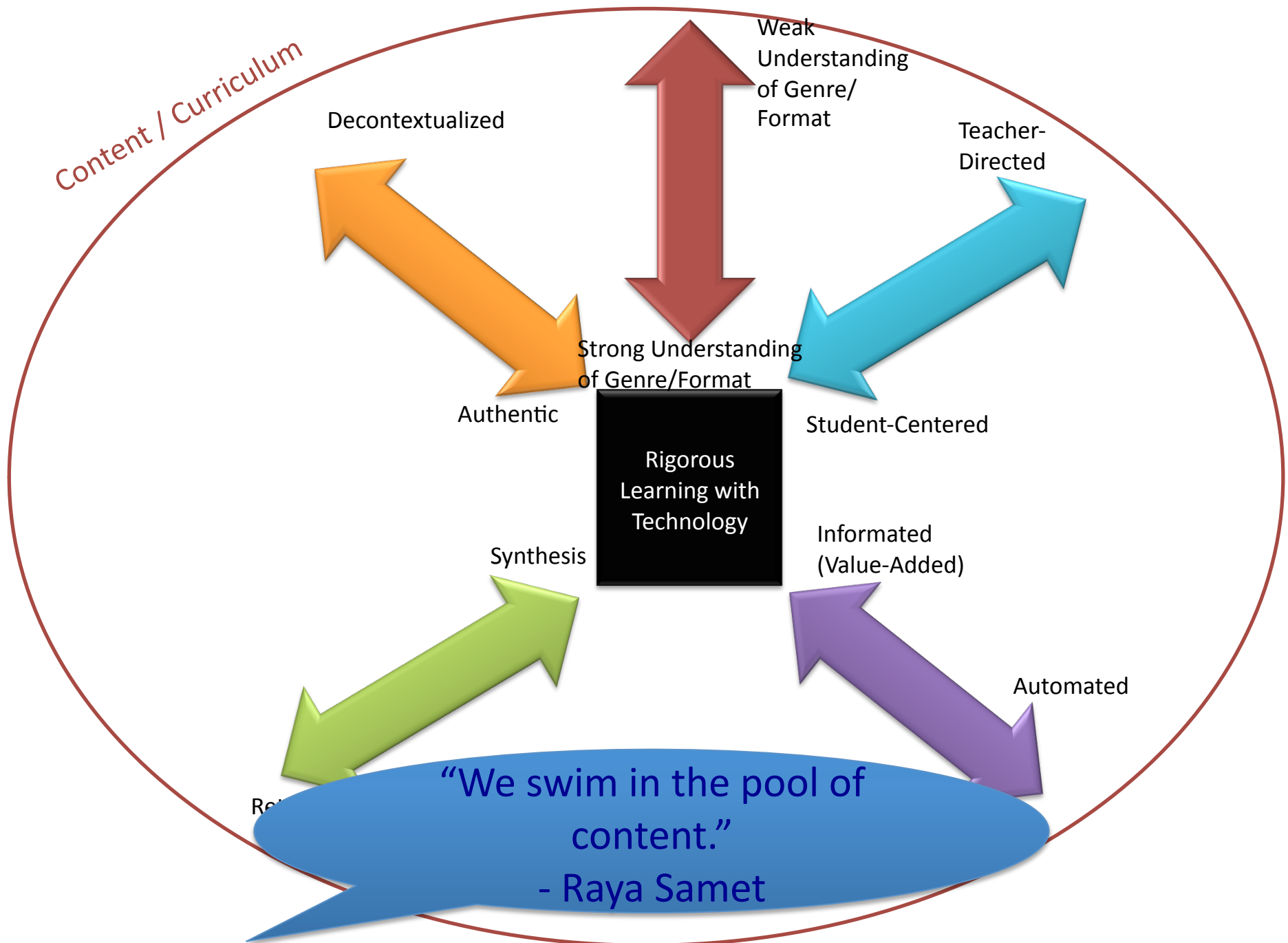
Tech is expensive
... why pay more if
we're not getting
more?



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



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

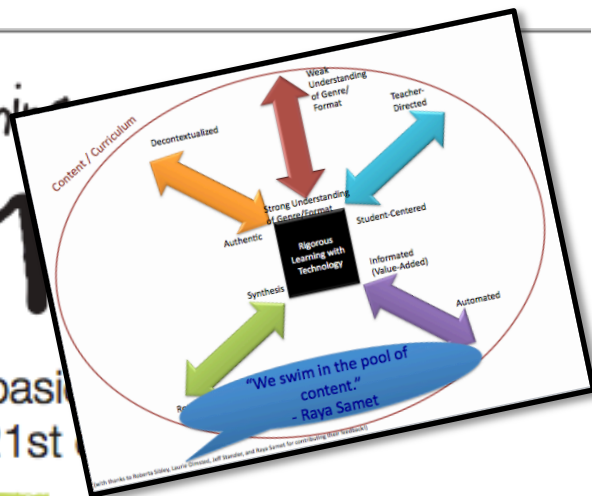


(with thanks to Roberta Sibley, Laurie Olmsted, Jeff Stanzler, and Raya Samet for contributing their feedback!)



We're taking teaching and learning Above & Beyond

Today's students are moving beyond the basic and embracing the 4C's — "super skills" for the 21st



Communication

Sharing thoughts, questions, ideas, and solutions



Collaboration

Working together to reach a goal — putting talent, expertise, and smarts to work



Critical Thinking

Looking at problems in a new way, linking learning across subjects & disciplines



Creativity

Trying new approaches to get things done equals innovation & invention



For more 4C resources from the Partnership for 21st Century Skills, including the animated film ABOVE & BEYOND by Peter H. Reynolds & FableVision, journey to www.p21.org/4Cs



PARTNERSHIP FOR
21ST CENTURY SKILLS



The Silent Partners

Creativity

Motivation

Enthusiasm

Engagement

“Hands on keyboards”





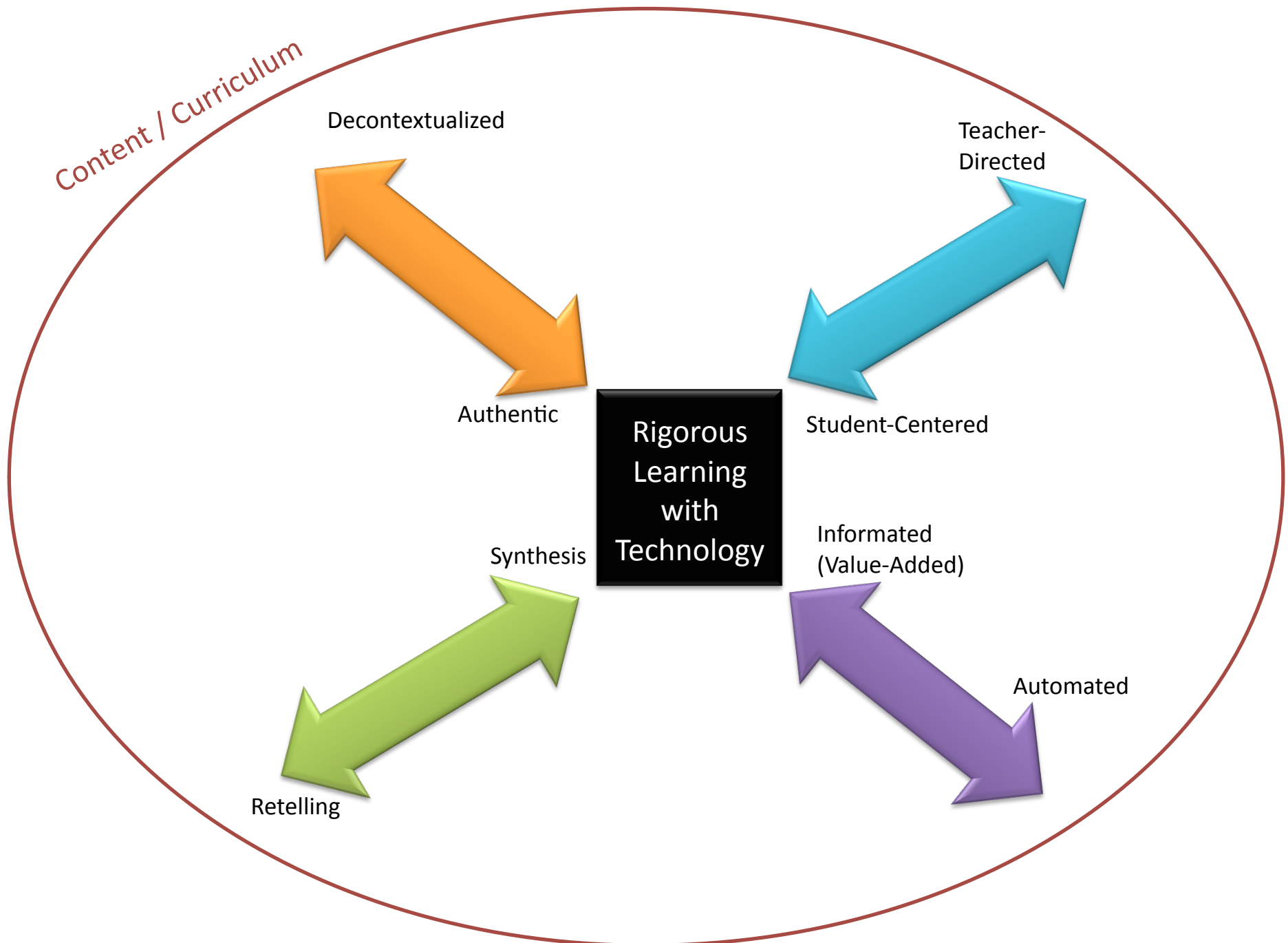
Testing Our Lens: Student Work Samples

Recognize
this
Report?

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

<http://bit.ly/sofia-otter>





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



Glogster
me, baby!



[http://bit.ly/
watsons1963](http://bit.ly/watsons1963)

<http://bit.ly/watsonsl963>



!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!CLICK!!!!!!!!!!!!
!!!!!!!!!!HERE!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

The Bombing
happened at Sunday,
15th September,
1963. At The
16th Baptist
Church.

Check
it
out!!!!!!

Addie Mae Collins,
Carole Roberston, Denise
Mcnaair, and Cynthia Wesley
had all died the day of the
bombing.



The explosion blew a hole in the
church's rear wall, destroyed the
back steps, and left intact only the
frames of all but one stained-glass
window.



Copyrighted material: copyright
By the author of Newbery Award Winner *The Watsons Go to Birmingham - 1963*

*The Watsons Go to
Birmingham — 1963*
Christopher Paul Curtis



<http://bit.ly/watsonsl963>

CLICK
HERE!!!!

The bombing happened at Sunday, 15th September, 1963. At the 16th Baptist Church.

Check it out!!!!!!!!!!

Addie May Collins, Carole Roberston [sic], Denise McNair, and Cynthia Wesley had all died the day of the bombing.

The explosion blew a hole in the church's rear wall, destroyed the back steps, and left intact only the frames of all but one stained glass window.





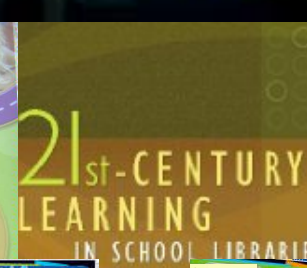
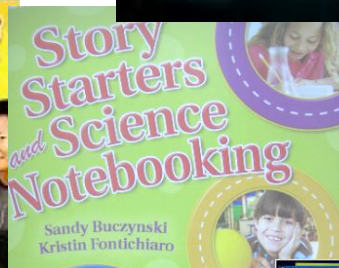
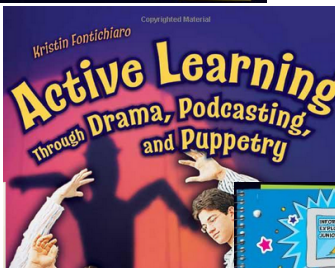
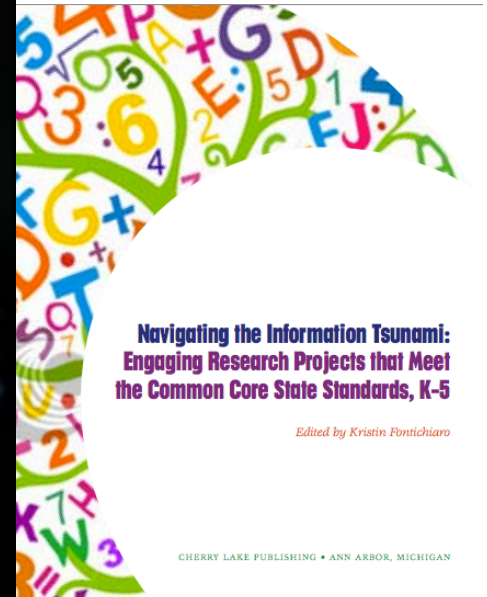
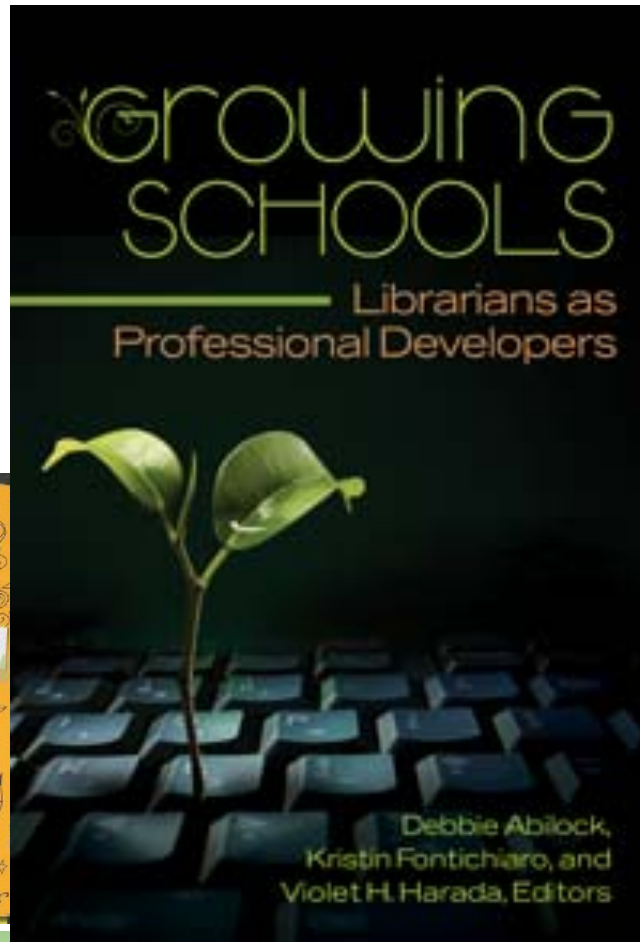
Better Ingredients.
Better Pi

LEARNING.

Questions?

font@umich.edu

@activelearning



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