This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning
– Winston Churchill

I do not envy people who think they have a complete explanation of the world, for the simple reason that they are obviously wrong
— Salman Rushdie

Pressure!

Today

Some quick thoughts

Looking to the future (a conversation

Conclusion: How to think of innovation

What surprised us!

How do you get 2 Higher Ed institutions to work together?

(Much less ALL!)

And a whole host of NEW acronyms (even worse than TPCK)

Actual TPACK cases

I know it when I see it!

(Justice Potter Steward 1964)

Connected to National Standards, illustrated in practice, connected with research

WOW!

It is time...

... to shut up!

... and start

a conversation!

TTF TO THE FUTURE

Some key topics

Scaleability

potential issues as
the project grows

Developing TPACK

how to develop it in pre- and in-service teachers

Sustainability

how to sustain effort
over time

Developing Leaders

how to develop ICT leaders in our schools

Project Research

what research should the project being doing

Advocacy

sharing work with other stakeholders

The rules!

Scaleability

potential issues as the project grows

Developing TPACK

how to develop it in pre- and in-service teachers

Sustainability

how to sustain effort over time

Developing Leaders

how to develop ICT leaders in our schools

Project Research

what research should the project being doing

Advocacy

sharing work with other stakeholders

10 minutes !!

List long term and short term ideas related to your topic

Write on the big sheets of paper

5 minutes !!

Of all your ideas, decide which

ONE long-term idea, and

ONE short-term idea

that you will share with the whole group

Each table has 1 minute to report

Their topic, and their

ONE long-term idea

ONE short-term idea

Google Docs

https://docs.google.com

21st Century Learning

21ST CENTURY KNOWLEDGE AND SKILLS IN EDUCATOR PREPARATION
September 2010
This paper has been produced as part of a collaborative project by the American Association of Colleges of Teacher Education and the Partnership for 21st Century Skills (P21).
Funding for the project was generously provided by Blackboard, ETS, Intel, National Education Association, Microsoft and Pearson.
Partnership for 21st Century Skills
AACTE

1. The goal: To provide all students with 21st Century education

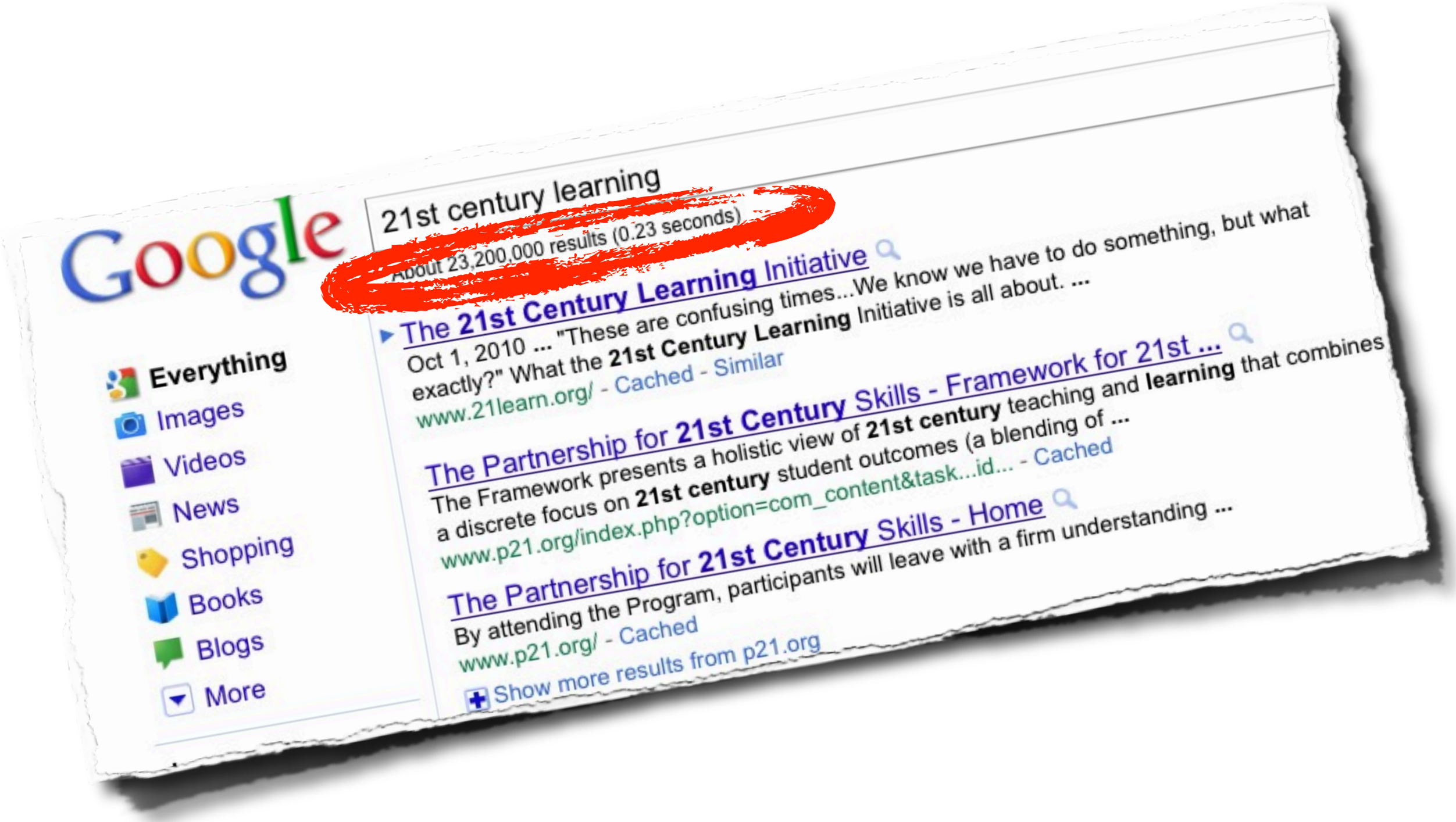
2. Redesign of TE programs based on collaboration between Higher Ed, schools, & communities (each organization to develop 21st Century blueprint to meet needs of learners)

3. Teachers & Admin will possess, teach and assess **21st Century Skills/Knowledge**

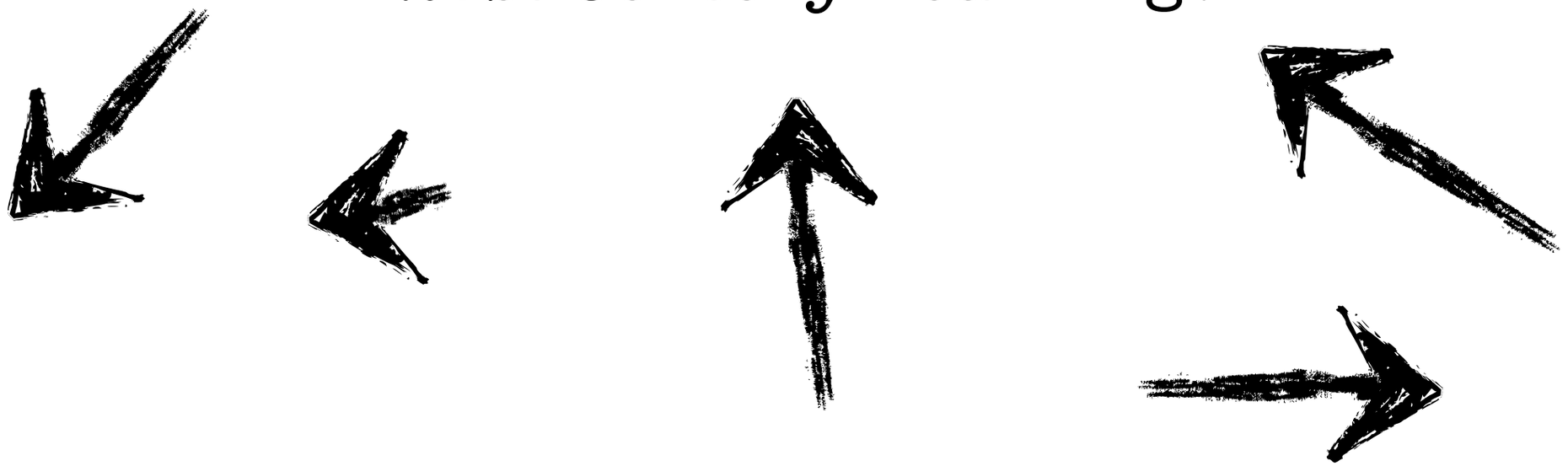
4. New teachers as agents of change - for all subjects and all grades - possess, teach and assess 21st Century Skills/Knowledge

5. TE programs will be sources of leadership, research and evaluation on 21st Century Skills/Knowledge

21st Century Skills/Knowledge
What are they?


Google
21st century learning
About 23,200,000 results (0.23 seconds)
Everything
Images
Videos
News
Shopping
Books
Blogs
More
The 21st Century Learning Initiative
Oct 1, 2010 ... "These are confusing times...We know we have to do something, but what exactly?" What the 21st Century Learning Initiative is all about. ...
www.21learn.org/ - Cached - Similar
The Partnership for 21st Century Skills - Framework for 21st ...
The Framework presents a holistic view of 21st century teaching and learning that combines a discrete focus on 21st century student outcomes (a blending of ...
www.p21.org/index.php?option=com_content&task...id... - Cached
The Partnership for 21st Century Skills - Home
By attending the Program, participants will leave with a firm understanding ...
www.p21.org/ - Cached
Show more results from p21.org

21st Century Learning?



But what does this 21st Century Learning look like?

21st Century Resources To Enhance Student Learning

Wikis/ Blogs | Social Networking | Web 2.0

So You Can Surf...Now What? Web 2.0

Web 2.0 is the latest version of the web where users are interacting and collaborating real-time. Participants will be presented with the best Web 2.0 free resources and websites, as well as ideas for implementation into both their classrooms and personal lives. They will be able to identify the characteristics of a Web 2.0 resource, demonstrate an understanding of Web 2.0 and its uses by brainstorming on how they can be incorporated into the classroom. Participants will also learn to use the information provided to access free resources and websites designed with students and teachers in mind and explore the 21st Century Resource page for hands-on Web 2.0 experiences.

K12online 2010

2009

Googlios: A 21st – Century Approach to Teaching, Learning, & Assessment

By Jose Rodriguez · December 18, 2009 · Email this post · Print this post · Post a comment

Presenter: G. Alex Ambrose
Location: South Bend, Indiana, USA
Link to presenter's K12Online Ning Profile page

Presentation Title: Googlios: A 21st – Century Approach to Teaching, Learning, & Assessment

Presentation Description: As the first decade of the 21st century comes to end and blogs, wikis, and podcasts have become more mainstream, it is important that educators step back to see how we, as professionals, are best using these tools to serve our students' learning needs. If these modern technologies are going to be sustained in contemporary pedagogy, it is time that we "kick it up a notch"

21st Century PD is on wikis

I am becoming convinced that all, or at least most, of the professional development sessions we participate in as educators and share with others sho organized via linked wikis. Dean did a great job modeling this last month in his **multi-day digital storytelling workshop**. I attempted this in June w he several workshops with teachers in College Station, Texas (Bryan ISD) **focused on digital literacy**– primarily the use of blogs and podcasts to hel s develop both traditional and 21st century literacy skills. I started a **blogging tools wiki** a few weeks ago after **an engaging skypecast on this top** 2006 conference I attended 2 weeks ago in Winfield, Kansas **utilized a conference wiki** that a fair number of folks have contributed to successfully

So, why all this educational wiki-use? I think the answers are pretty straightforward:

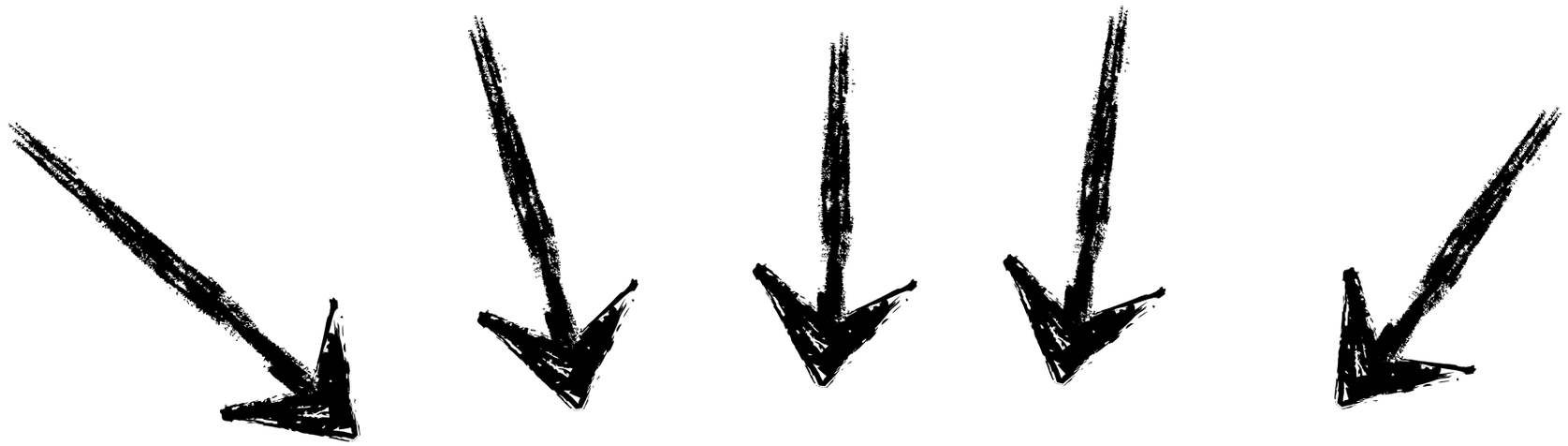
1. Wikis are collaborative, and one of the ideas we want students and teachers to both understand and LIVE is the idea that groups of people c a come up with better ideas and solutions than people working in isolation.
2. Wikis are iterative, meaning that they improve over time. They are not a single snapshot or a static creation, but rather a dynamic, living creat continue to grow as ideas change and evolve over time.
3. Wikis are free. As teachers, we like free stuff. And wikis don't cost anything to create in our present climate of abundant web 2.0 free tools.
4. Wikis are RSS subscribable, which makes them easier to track and update. More information services in the coming years will embrace RSS reason: Pulling information of interest to you is much more preferable than having information PUSHED to you that may or may not be desire
5. We learn best by experiencing pedagogy and technology: Using wikis permits teachers to take on the role of learners, and directly experience but yet simple wikis are and can be for instruction– and especially group work.
6. Wikis are fast to create and update. I've been making webpages to accompany my educational technology workshops since the mid-1990s, used anything as fast and easy as a wiki. Yes, using a tool like Dreamweaver I can create a websit bells and whistles education should generally be more on CONTENT and IDEAS rather than bells and whistles. Vendors and our own students may lose sight o

Compare to the
first decade (or so)
of the 20th Century

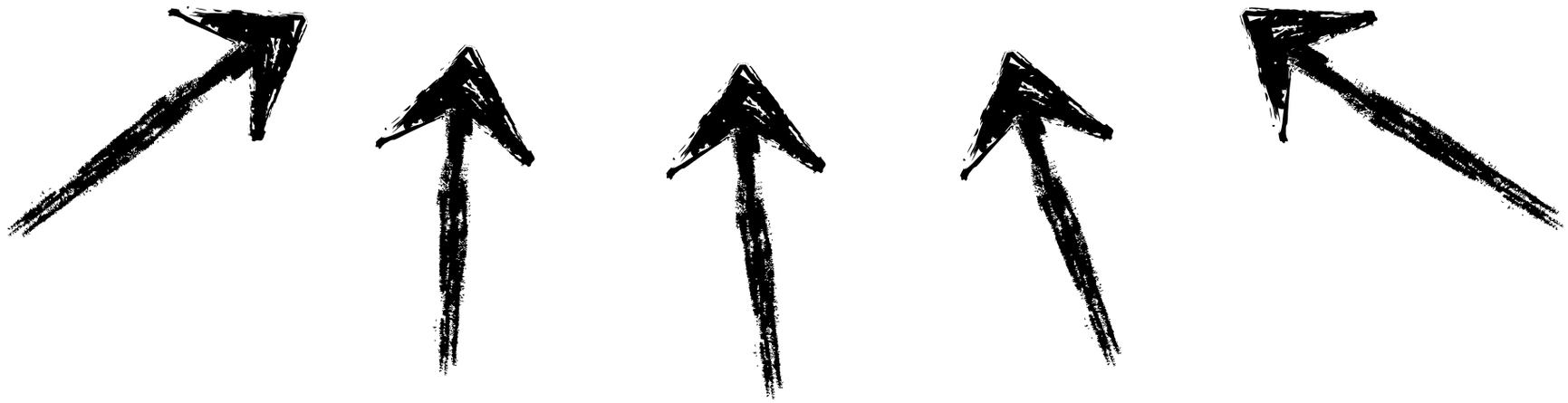
1900 - 1912

1900	Zeppelin, escalator
1901	Radio, vacuum cleaner
1902	Air conditioner, neon light, teddy bear
1903	Crayons, first flight, tungsten for bulbs
1904	Teabags, vacuum diode
1905	Theory of relativity
1906	Cornflakes, sonar, triode
1907	Synthetic plastic (bakelite), color photo, helicopter
1908	Cellophane, geiger counter
1909	Instant coffee
1910	Talking motion picture
1911	Electrical ignition system for cars
1912	Motorized movie cameras, life savers candy, tank
1913	Crossword puzzle, bra, zipper

Imagine basing 20th century learning on these technologies...



21st Century Learning?

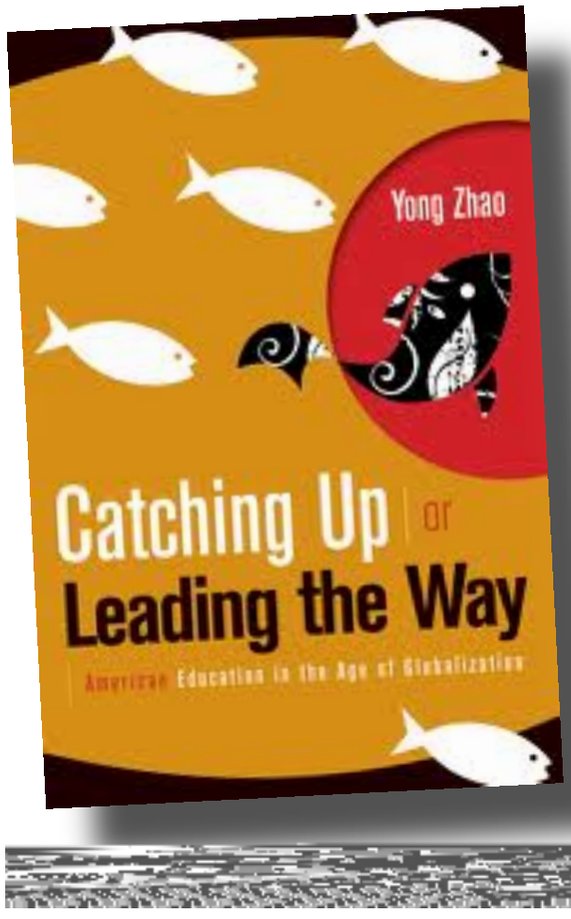


A synthesis

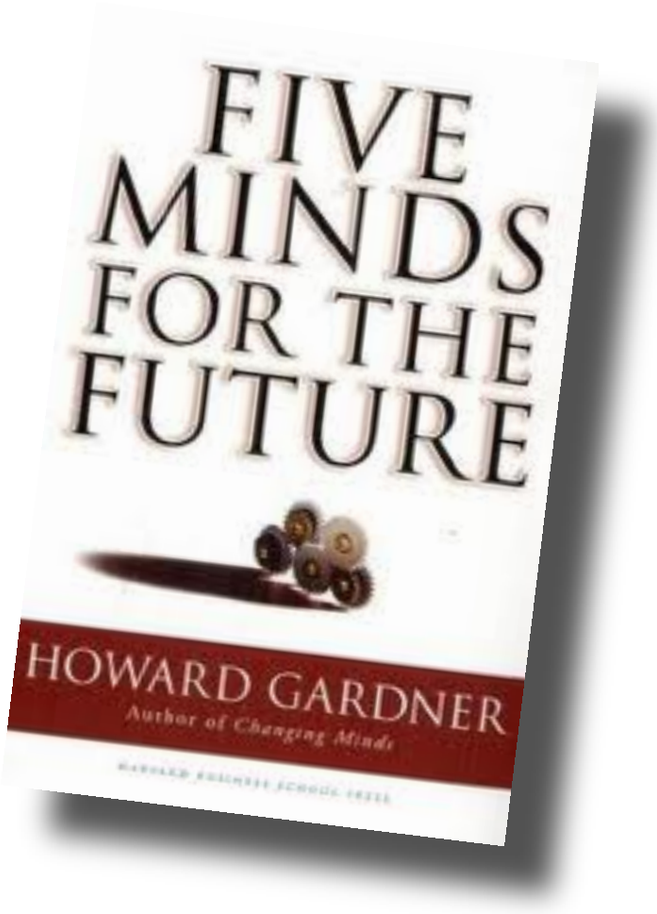
Disclaimer: We couldn't include all 23 Million Google hits

21st Century Thinkers

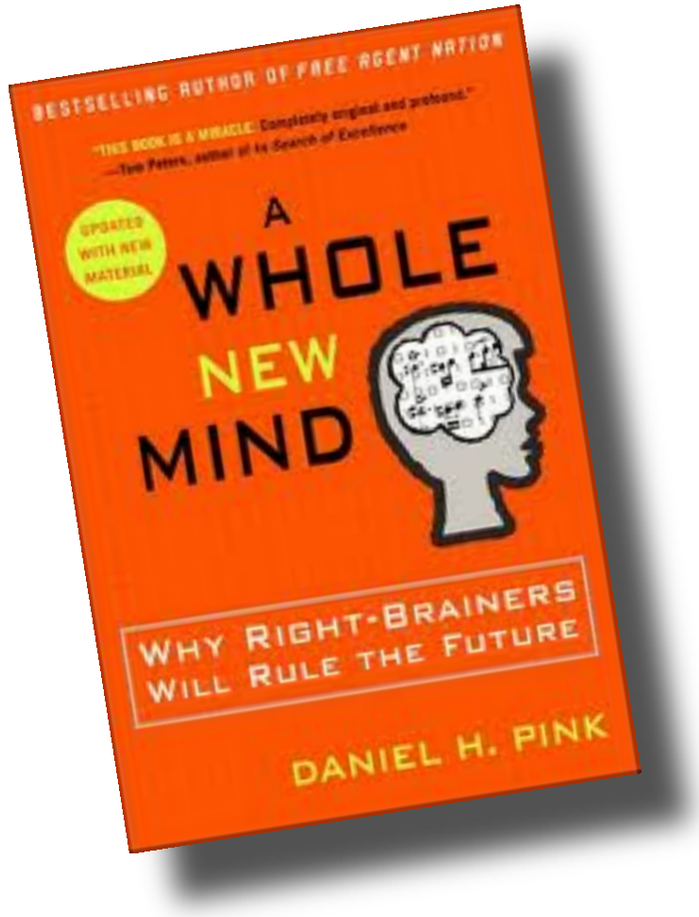
Yong Zhao



Howard Gardner



Daniel Pink



21st Century Organizations

The Center for Public Education

International Society for Technology in Education

American Association of Colleges and Universities

European Union

14 Frameworks

3 big ideas emerged

21st Century Learning

1 Foundational Knowledge

Content, Information Literacy,
Cross-disciplinary knowledge

2 Meta Knowledge

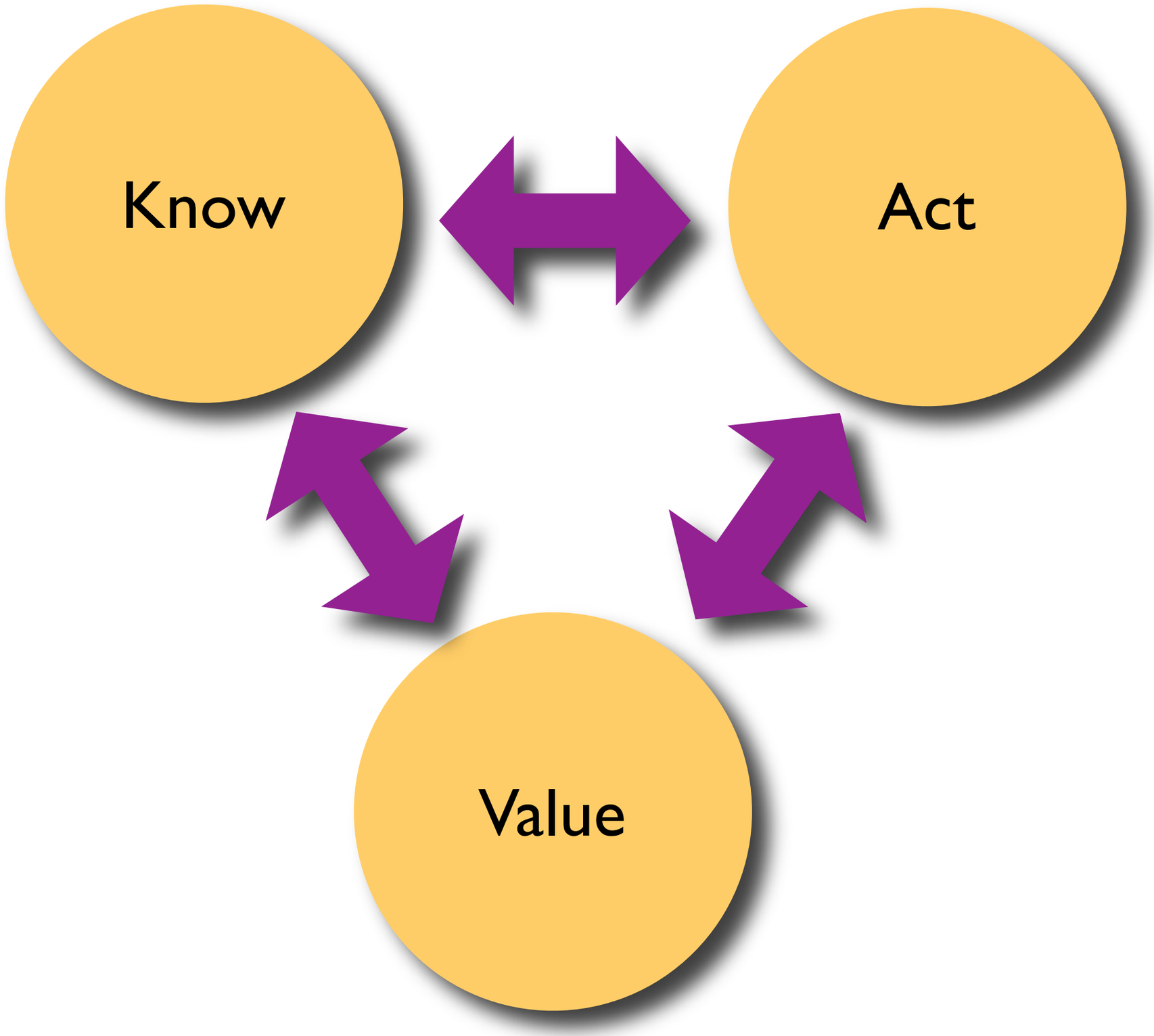
Problem Solving / Critical Thinking,
Communication / Collaboration, Creativity

3 Humanistic Knowledge

Life/Job skills, Cultural competence,
Ethical/Emotional Awareness

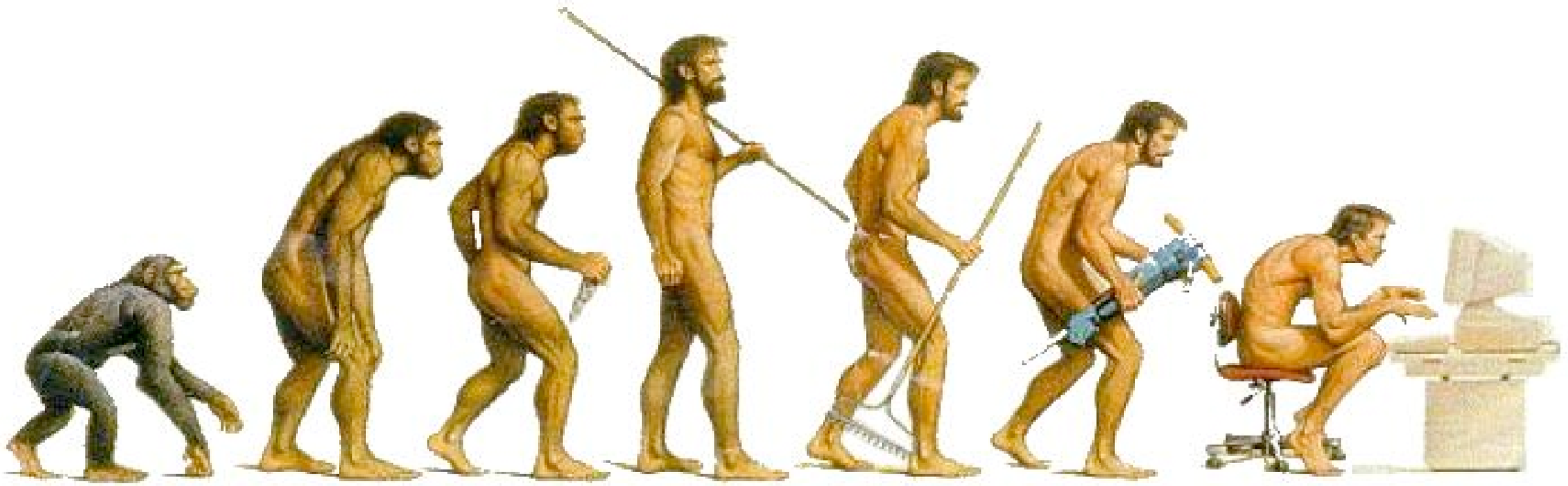
Foundational Knowledge

Meta Knowledge



Humanistic Knowledge

Nothing has changed



myspace.com
a place for friends
Google
SECOND LIFE
CSS
SIM LIFE
THE GENETIC PLAYGROUND
Bb
Blackboard
THE GEOMETER'S SKETCHPAD
LINUX
POWERED
IBM
Java
Google Earth
Ask.com
PayPal
Outlook Express
Adobe
Blogger
macromedia DREAMWEAVER MX
MATH BLASTER
EPISODE ONE
Apple Computer
CiteULike
MAPQUEST
KID PIX
RSS
RUNE SCAPE
WORLD OF WARCRAFT
THE BURNING CRUSADE
YouTube
Broadcast Yourself
Reader Rabbit
WIKI
LeapPad
Check Out the World of LeapPad!

Nothing

has changed

Everything

How do new technologies change teaching & learning?

How does TTF change teaching & learning?

Are we asking the wrong question?

Bertram “Chip” Bruce

Technological determinism

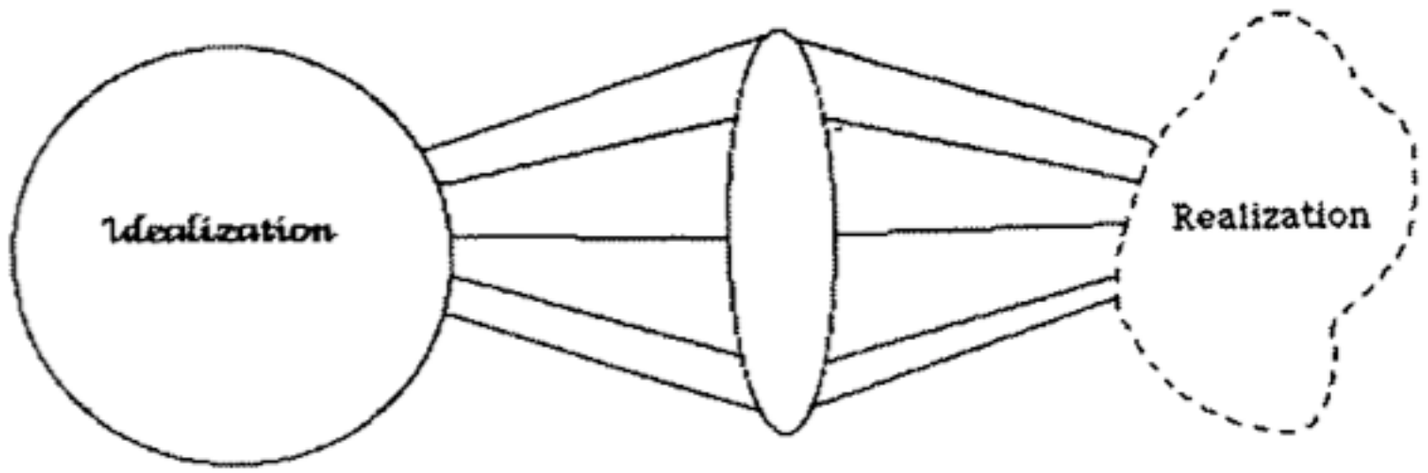
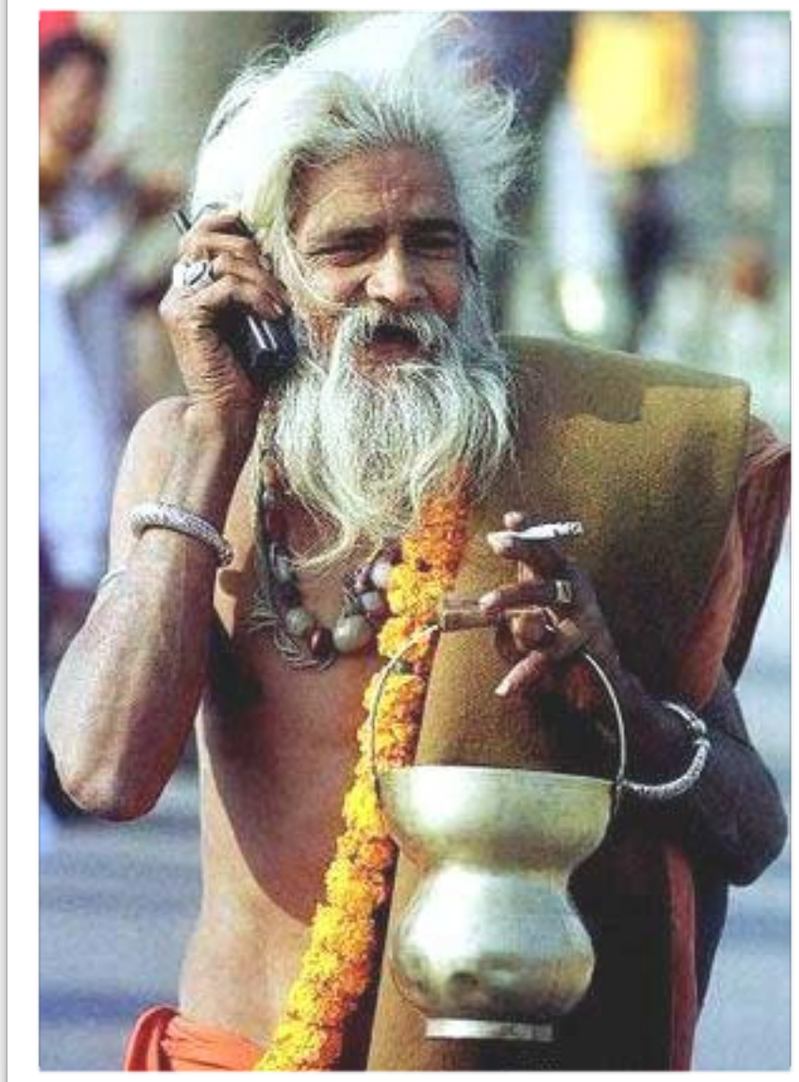


Figure 1-1. A Platonic view of the realization process

Technological
determinism

Technology as social practice



“Missed call”

Social practices “shape” the ways in which technology is understood & used

Meaning making as a transactional process - between the innovation & social structures & relationships

Beauty lies in the eye of the beholder,
but is inseparable from the flower — Bob Stake

The **design** of any technology must be understood not simply as the construction of a physical artifact to meet a functional specification, but as a **process** in which **relations among people are realized**.

We cannot specify the pure, or ideal, case for the use of an innovation, only its idealization in the minds of the developers.

Users inevitably interpret an innovation in distinctive ways, apply it idiosyncratically in their own contexts, and even recreate it to satisfy their own needs

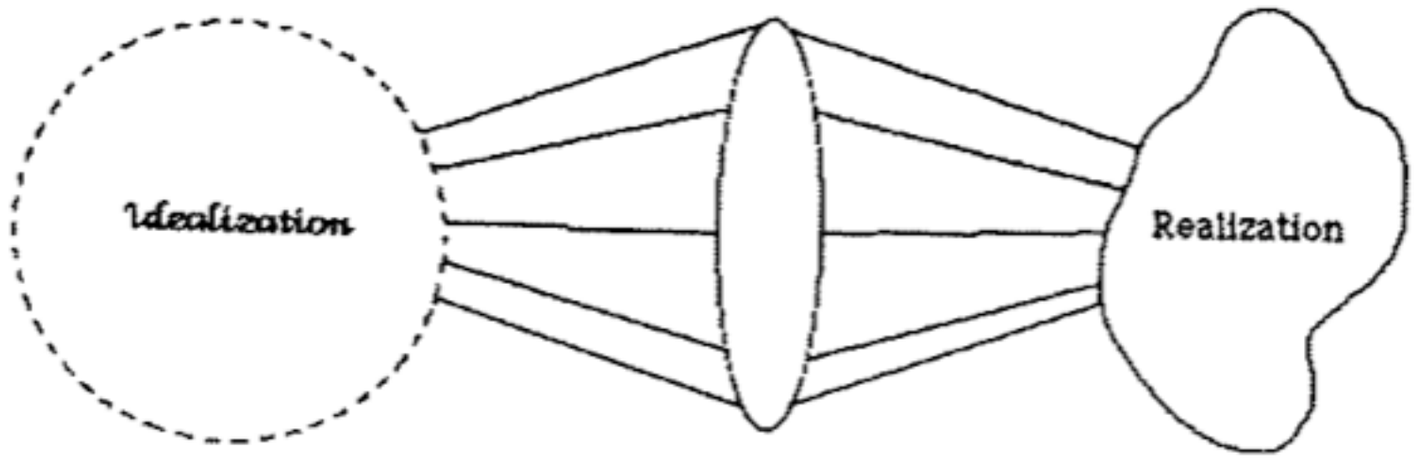


Figure 1-2. A Wittgensteinian view of the realization process

... but it is more complicated than that!

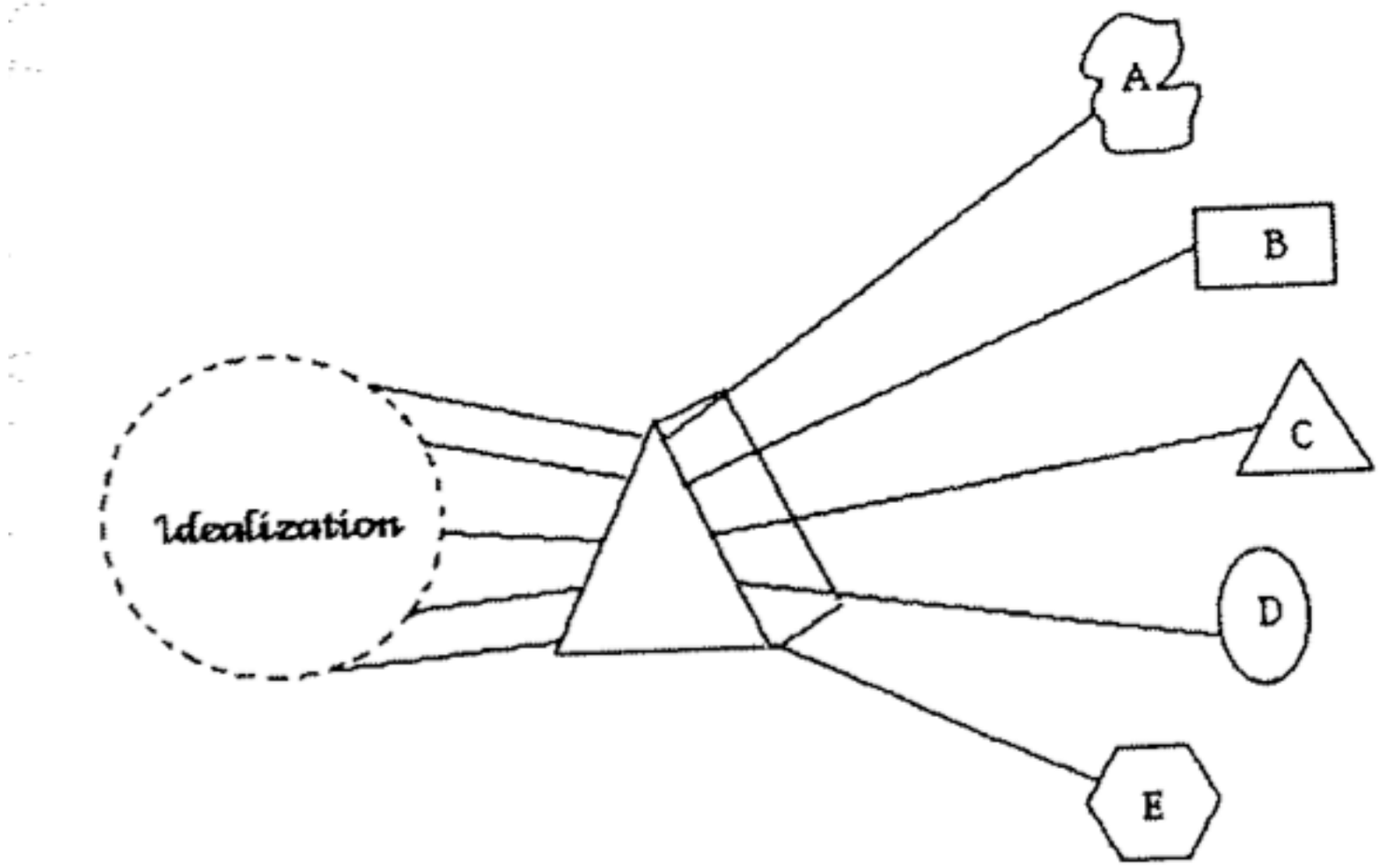


Figure 1-3. Alternate realizations of an innovation

What is

Teaching Teachers for the Future

?

Teaching Teachers for the Future

One innovation
(with 41 instantations?)

OR

41 different innovations
(with one idealization)

Why is this important?

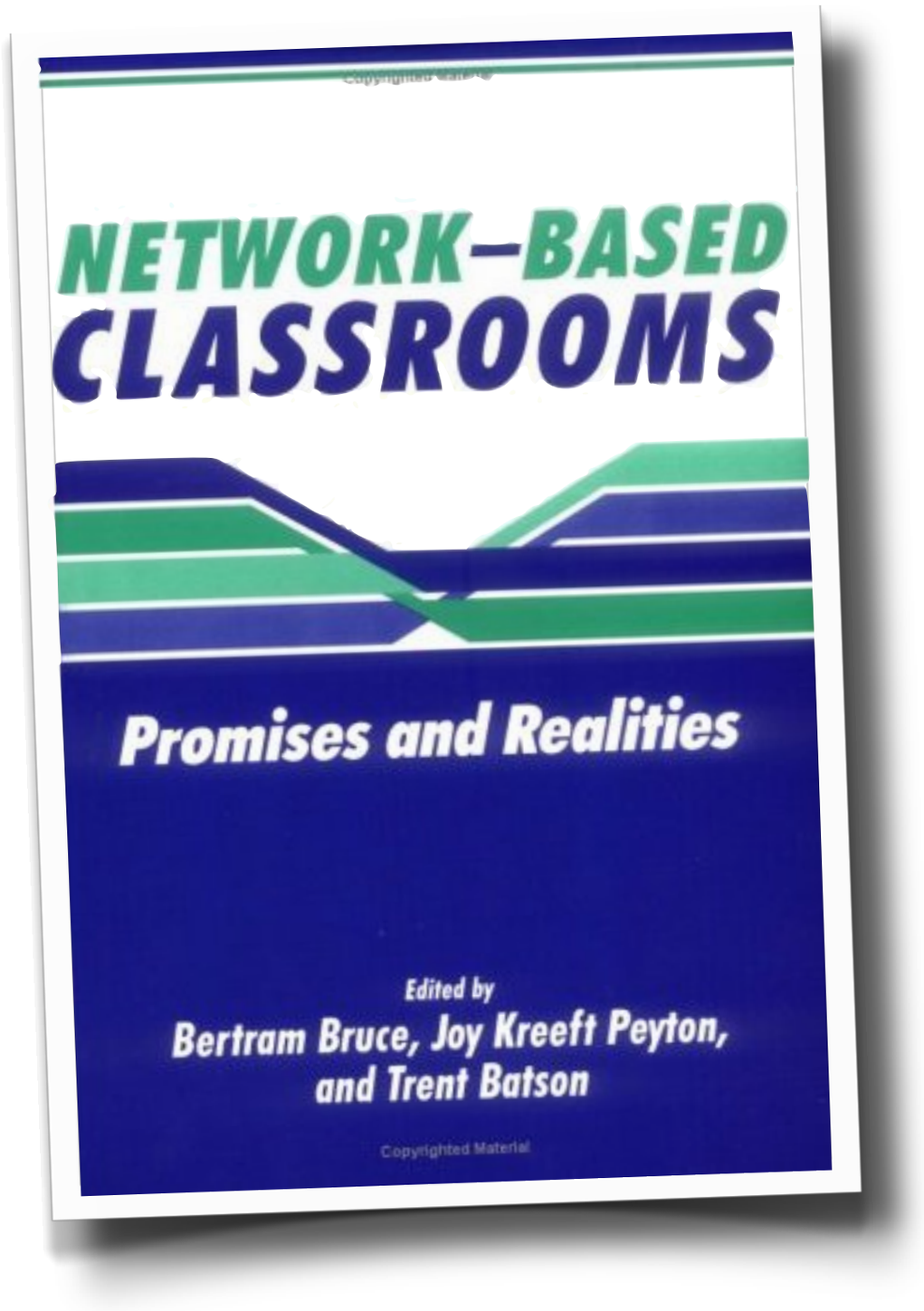
It has to do with...

What we learn...

& what we contribute to the broader conversation...

Early 1990's

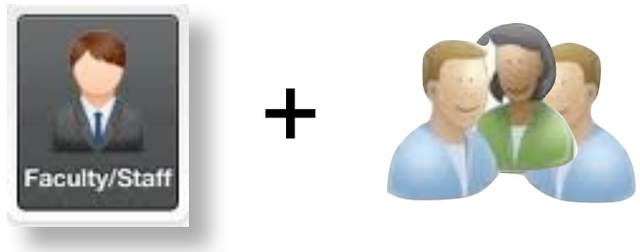
The Electronic Networks For Interaction (ENFI) project as it played out in different contexts (elementary and secondary schools and colleges and universities)


NETWORK–BASED
CLASSROOMS
Promises and Realities
Edited by
Bertram Bruce, Joy Kreeft Peyton,
and Trent Batson
Copyrighted Material

Faculty development in Higher Ed

1999

Learning Technology by



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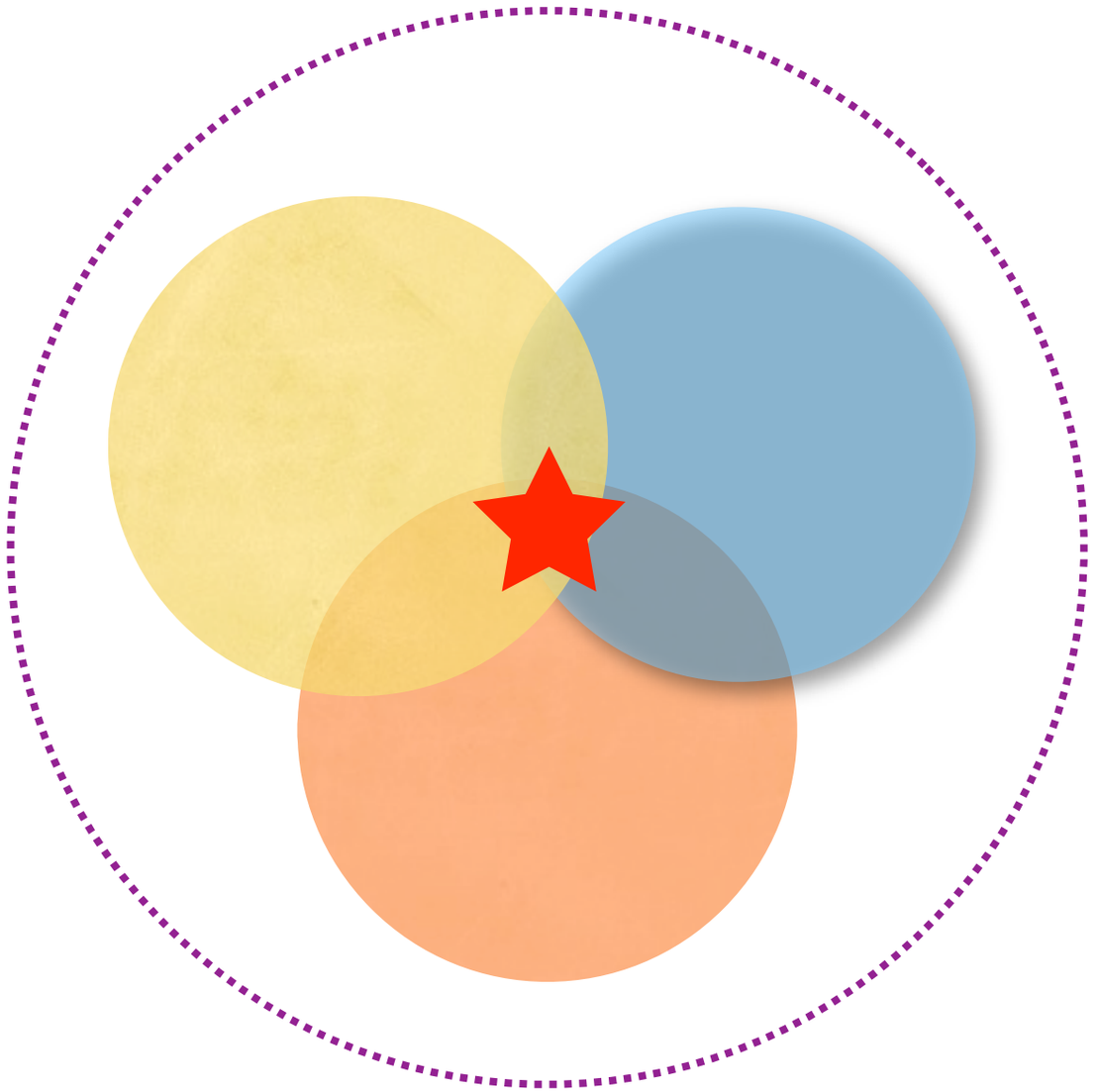
Problems of practice

Case studies of faculty development



Recognizing

How do you “see” the big picture?

Finally...

Learning from facebookisms

Done is better than perfect

Code wins arguments

Move fast and break things

The riskiest thing is to take no risks

This journey is 1 percent finished.

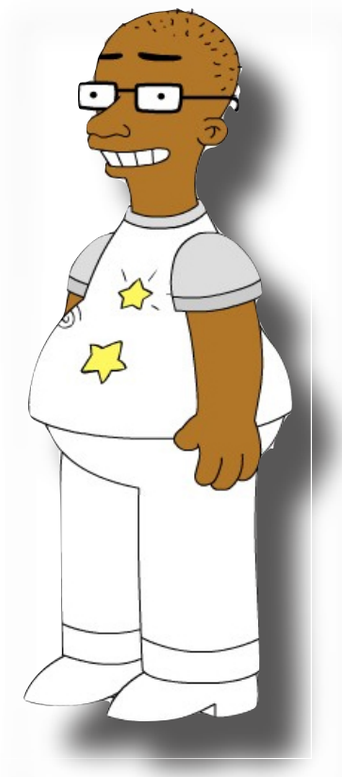
Explore | Create | Share

This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning
– Winston Churchill

I do not envy people who think they have a complete explanation of the world, for the simple reason that they are obviously wrong
— Salman Rushdie

Thank you!

http://tpack.org



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