Metaphors, Models, and Flows: Elements for a Cartography of Technology In Learning

Ruben R. Puenteedura, Ph.D.
Metaphors 1:
Computers, Children, and Learning
AS WE MAY THINK

A research center for augmenting human intellect

A Personal Computer for Children of All Ages

TO POLY :ANGLE :STEP
1. FORWARD :STEP
2. RIGHT :ANGLE
3. POLY :ANGLE :STEP
END

ON MAKING A THEOREM FOR A CHILD
Models 1: The SAMR Model
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 for significant task redesign

Redefinition
Tech allows for the creation of new tasks, previously inconceivable

Transformation
Podcasts on iTunes U: http://tinyurl.com/aswemayteach
Literacy and Vocabulary
Marzano: Six Steps to Effective Vocabulary Instruction

- Step 1: The Teacher Provides a Description, Explanation, or Example of the New Term
- Step 2: Students Restate the Explanation of the New Term in Their Own Words
- Step 3: Students Create a Nonlinguistic Representation of the Term
- Step 4: Students Periodically Do Activities That Help Them Add to Their Knowledge of Vocabulary Terms
- Step 5: Periodically Students Are Asked to Discuss the Terms with One Another
- Step 6: Periodically Students Are Involved in Games That Allow Them to Play with the Terms

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Opening Up the Math Candy Store
Fig. 2. Estimates by 160 gynecologists of the probability that a woman has breast cancer given a positive mammogram, before and after receiving training in how to translate conditional probabilities into natural frequencies.

Fig. 4. Lead-time bias. Even if the time of death is not changed by screening—and thus no life is saved or prolonged—advancing the time of diagnosis in this way can result in increased 5-year survival rates, causing such statistics to be misleading.
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Metaphors 2: Mobility, Sketchbooks, and Curiosity
Three Key Characteristics of Mobile Devices

• Ubiquity

• Intimacy

• Embeddedness
Two Key Metaphors

• The Lively Sketchbook

• The Curiosity Amplifier
My name is Ernest Miller Hemingway.

Born on 21 July 1899

My favourite authors are: Dickens, O Henry

My favourite animals are: dogs, chickens, and cats.

My favourite flowers are: roses, daisies, and tulips.

My favourite holiday is: Christmas, because it's cold and snowy.

My favourite food is: roast beef and mashed potatoes.

My favourite drink is: hot chocolate.

I have a pet dog named Jack, and a cat named Daisy.

I like to travel and have seen many places in the world.
• General Search
• Media Search and Identification
• Lifestyle Search
• Social Network Participation
• News
• Books
• Augmented Reality
"Critical Pessimism" Revisited: An Open Letter to Adam Fish

henry.jenkins.org • A few weeks ago, Adam Fish called me out through his blog, Savage Minds, for what he saw as a harsh and unfair representation of the Media Reform movement in the final paragraphs of my book, Convergence Culture: Where Old and New Media Collide. He did so for the most part by simply reprinting my own words to frame a story he wrote about the recent Media Reform conference.

I was a bit surprised to find myself singled out as an enemy of the Media Reform movement. If I am the biggest obstacle to your success, you are much closer to victory than I had previously imagined. :-)

The experience was uncomfortable for me, but in a very constructive way; in that it...

Webster as an orthographic conservative?

Matthew Edney, who describes himself as "a British-born academic who, 27 years after first arrival, is linguistically located somewhere in the general confusion of the Mid-Atlantic", sent me an interesting query about the history of English spelling. Since I know almost nothing about this subject, I'm forwarding the question to LL readers, who are likely among them to have the answers, or at least some useful observations.


Don't try this at home

languagelog.ltc.upenn.edu • Following up on my posts about locative denominal verbs, yesterday's SMBC: Without professional guidance, that kind of exploration could go off in all kinds of directions: And instead of emerging with some sensible conclusion ("...the bi-ventive analysis can form a basis for a unified theory of causativization across languages while the theta-role analysis cannot..."), you could wind up with no one knows...
National Education Crisis Could Spell Venture Capital Opportunity

A decade ago, the dot-com boom fueled a wave of venture investment in Internet-enabled education companies. Since then, the evolution of social media coupled with improvements in connectivity and mobility would seem to presage a new class.

How to Tweet From Email

There are many different third-party Twitter tools online that can help you become more productive in the way you use the micro-blogging tool. For example, there might come

Teachers want to ditch Jane Austen because 'schoolboys don't have the stamina'

Teachers want to ditch classic novels in favour of shorter books because they reckon boys do not have the stamina to read more than 100

PhD Detachment

I co-supervise a student who surprised us at lunchtime last week by saying:

“I just don’t care anymore. What ever

6 Reasons Why Tablets Are Ready for the Classroom

Vincent Madan is Vice President of McGraw-Hill Higher Education eLabs, which works with
Flows
ABOUT WRITER > CONTENT

1. WHY WE BUILT IT
2. HOW IT WORKS
3. WHY IPAD?
4. NOT HAPPY?
5. CREDITS

1. WHY WE BUILT IT

The key to good writing is not that magical glass of Bordeaux, the right kind of tobacco or that groovy background music. The key is focus.
Building Flows

[Diagram showing a flowchart with various software icons, including Dragon, writer, and other applications connected in a sequence.]
A SAMR Ladder for AAC

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Modification

Augmentation

Redefinition
Models 2:
The TPCK Model
Additional Resources
Resources

Metaphors:


SAMR and TPCK:

• AACTE (Eds.) The Handbook of Technological Pedagogical Content Knowledge for Educators. New York:Routledge, 2008.
Resources – Part II

Defining Mobile Devices/The Lively Sketchbook

The Curiosity Amplifier
Photo Credits

- *iPad in Subway*: Takashi M

- *YouTube + iPad + Hanalei = Happiness*: Wayan Vota

- *Parcours-jeu multimedia : Les métiers du musée*: Jean-Pierre Dalbéra

- *Les Deux Magots*: Robyn Lee

- *Vladimir Nabokov at work*: Carl Mydans