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

Ruben R. PuenteDura, 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 Erskine Miller Hemingway.

Born on July 21, 1899.

My favorite authors...

Mr. Ernest Hemingway

My favorite flowers are lady apples and lilies.

My favorite organs are the heart, stomach, and arteries.

My favorite animals are horses and dogs.

And myself.

Les Deux Magots

A Moveable Feast

Ernest Hemingway

Sketches of the author's life in Paris in the twenties.
- General Search
- Media Search and Identification
- Lifestyle Search
- Social Network Participation
- News
- Books
- Augmented Reality
"Critical Pessimism" Revisited: An Open Letter to Adam Fish

Tap to sign in to Facebook…

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

New app visualises your vehicle and driving activity
Since 1996 cars have been built with on-board computers to capture and store a wide range of diagnostic and...
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

ehow.com · 2 hours ago

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’

Mail Online · 5 hours ago

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

thesthesiswhisperer.wordpress.com · 9 hours ago

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

mashable.com · 12 hours ago

Vineet Madan is Vice President of McGraw-Hill Higher Education eLabs, which works with
Flows
1. WHY WE BUILT IT
2. HOW IT WORKS
3. WHY IPAD?
4. NOT HAPPY?
5. CREDITS

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
A SAMR Ladder for AAC
Models 2:
The TPCK Model
Making Sense of Evidence

This section helps students and teachers make effective use of primary sources. "Making Sense of Documents" provide strategies for analyzing online primary materials, with interactive exercises and a guide to traditional and online sources. "Scholars in Action" segments show how scholars puzzle out the meaning of different kinds of primary sources, allowing you to try to make sense of a document yourself by providing audio clips in which leading scholars interpret the document and discuss strategies for overall analysis.

Making Sense of Documents

Making Sense of Oral History
Written by Linda Shores, this guide presents an overview of oral history and ways historians use it, tips on what questions to ask when reading or... [more]

Making Sense of Films
Written by Tom Gunning, this guide offers an overview of early twentieth-century film and how historians use it, tips on what questions to ask when... [more]

Making Sense of Maps
This guide offers an overview of the history of maps and how historians use them, a breakdown of the elements of a map, tips on what questions to ask... [more]

Making Sense of Numbers
Written by Darin J. Kennell, this guide offers an overview of

Scholars in Action

Analyzing an 1804 Inventory
In this interview Barbara Clark Smith discusses strategies for analyzing household possessions, specifically an 1804 inventory of the possessions of... [more]

Analyzing Political Cartoons
In this interview, Michael O'Malley discusses strategies for interpreting political cartoons, specifically an 1876 Thomas Nast cartoon. The cartoon... [more]

Analyzing Blues Songs
In this interview, Lawrence Levine discusses strategies for listening to and interpreting music, specifically two blues songs, "Two White Horses"... [more]

Analyzing Photographs
In this interview, Frank Goode discussses strategies for...
Horizon Report: K12 Edition Wiki
The generous support of HP's Office of Global Social Innovation makes this research possible and is thankfully acknowledged.

Welcome to the workspace for the 2011 Horizon K12 Project. This space is a place for the members of the Horizon K12 Advisory Board to manage the process of researching, discussing, and ultimately, selecting the topics for the 2011 Horizon Report: K-12 Edition. The annual K12-focused report, which summarizes the qualitative research that will be conducted on this wiki, and the K12 Project as a whole is a project of the New Media Consortium.

The report, to be published in May 2011, will focus on emerging technology and its applications to K-12 education. This is its third year of publication. (See the Horizon Report: 2010 K-12 Edition, shown in this link in its web-powered discussion format. The official electronic release appears in the right column).

Horizon K12 is a project that applies the process developed for the New Media Consortium’s Horizon Project to the identification of trends and challenges relevant to elementary and secondary learning institutions, and to clarifying key emerging technologies that are sure to impact the sector. Members of the...
Additional Resources
Resources

Metaphors:

SAMR and TPCK:
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
Hippasus

Blog: http://hippasus.com/rrpweblog/
Email: rubenrp@hippasus.com
Twitter: @rubenrp

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