Four Variations On S.A.M.R. (And Three Fugues)

Ruben R. PuenteDura, Ph.D.
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

Podcasts on iTunes U: http://tinyurl.com/aswemayteach
Social Computing

Digital Storytelling

Visualization and Simulation

Educational Gaming

Transformation

Social

Narrative

Visual

Play
I. Words and Stories
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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1. Digital Storytelling as Domain
II. Math, Visualized
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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Bayesian Statistics
What is commonly called Bayesian Statistics is a very special application of Bayes' Theorem.
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**Probability of being sick after having tested positive for a disease: P(sick|positive test)**

<table>
<thead>
<tr>
<th></th>
<th>positive test</th>
<th>negative test</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>sick</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>healthy</td>
<td>1997</td>
<td>330</td>
<td>2327</td>
</tr>
<tr>
<td>Total</td>
<td>1997</td>
<td>332</td>
<td>2329</td>
</tr>
</tbody>
</table>

$P(\text{sick}|\text{positive test}) = 0/1997 = 0$. 

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**How good is the test in detecting the disease?**
$P(\text{positive test}|\text{sick})$: 0.062

**How good is the test in detecting the absence of the disease?**
$P(\text{negative test}|\text{healthy})$: 0.142

**How likely is the disease?**
$P(\text{disease})$: 0.001

**Number of people for reference**
$N$: 2329
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2. Of Mobility
III. Engaging the World
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3. The Place of Learning
Lake Helen, Florida

For the high-altitude lake in Lassen Volcanic National Park, see Lake Helen (Lassen Peak).

Lake Helen is a city in Volusia County, Florida, United States.
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A one-to-one and onto function  by Professor Zer
In: discrete math

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IV. The Playful Historian
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Additional Resources
Resources

SAMR

Digital Storytelling

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
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Email: rubenrp@hippasus.com
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