The Perfect E-Storm: Emerging Technologies, Enormous Demand, and Erased Budgets

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Four Storms Are Approaching!

1. Emerging Technology
2. Escalating Demand
3. Erased Budgets
4. Enhanced Teaching

Storm 1. Emerging ("Hot") Learning Technologies (Volcanos)

Will we become increasingly mobile learners?

Of course, there will always be smaller and cheaper devices...

1. New interfaces are coming!
2. Social Networking Gaming (e.g., Farmville and gaming addictions)

3. Internet Enabled Devices (e.g., Oregon Scientific Smartglobe)

4. Shared Online Video (e.g., Link TV: Global Link of World Educators (GLOWE))

5. Individual Produced Videos (e.g., African School Dream in Current TV)

6. Continual Live Streaming (e.g., Zoo Animals on Demand)
7. Simulations
(e.g., Virtual Astronaut from WisdomTools)

8. e-Book Readers

Are Textbooks History? Digital Textbook in Korea
dictionary, email and forums, games, simulations, hyperlinks,
multimedia, authoring, data search, study aids, evaluation, etc. (112
schools as of 2009; free for all schools by 2013)

9. OpenCourseWare (e.g., MIT OCW Highlights for High School)

10. Open Educational Resources (e.g., Curriki, free K-12 curriculum resources)
Connexions: Dec 2009, 1.6m unique users, 4 million page views, 72 million hits, More than 1m users, 700 countries National Repository of Online Courses (NROC)

11. Online Referenceware
12. Online Reading Programs (See free-Reading.net)

13. Class Web Sites (e.g., Microsoft Office Live, Google Sites, Pageflakes)

14. Mobile Learning (e.g., Smartphones)

Text Messaging

Mobile Internet
(source: Dr. Paul Kim, Stanford)
"A" is for App, Anya Kamenetz, Fast Company, April 2010

Seeds of Empowerment, India, Paul Kim, Stanford

15. Inexpensive Laptops and Tablet Computers

16. Google Sky
http://earth.google.com/sky/index.html

Poll: Bonk's Web Addiction Questionnaire
1. Who has 2 or more mobile phones with Internet access?
2. Who has 2 or more laptop computers with wireless connections?
3. Who is on email in the morning? At noon? Who does it at night?
4. Who suffers from nervous tension when you cannot get on email?
5. Who is on the Web right now?

On to Storm 2... A Blizzard of Escalating Learner Demands
We're in the Midst of Storm 3: Erased Budgets (Tsunamis and Floods)

On to Storm 4: Enhanced Teaching (a swirling storm)

Addressing Diverse Learners with R2D2

The R2D2 Method
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)
Why Address Learning Styles?
- Promotes reflection on teaching
- Move from just one mode of delivery
- View from different viewpoints
- Offer variety in the class
- Might lower drop-out rates
- Fosters experimentation

1. Auditory or Verbal Learners
- Auditory and verbal learners prefer words, spoken or written explanations.

Podcast Questions
1. Who has listened to a podcast?
2. Who listens to a certain podcast on a regular basis?
3. Who has created a podcast?
4. Who has created a vodcast?
5. Who thinks podcasting is simply more talking heads?

Read 1a. Kids Podcasts

Read 1b. Art and History Exhibits

Read 1c. Wiki Steps on How to do Something: Wikihow
http://www.wikihow.com/
Read 1d. Course Announcements (e.g., Teaching with Twitter)

2. Reflective and Observational Learners
- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives

Blogging Questions
1. Who has a blog?
2. Who regularly reads other people's blogs?
3. Who assigns blogging tasks?
4. Who has created a video blog?
5. Who thinks it is an utter waste of time to blog?

Reflect 2a. Kids Blogs

Reflect 2b. Ask students to relisten and reflect on particular podcast shows (e.g., iPad April 2010)

Reflect 2c. Teacher Classroom Blogs

Mrs. Huff's English Classes
Reflect 2d. Reuse Blog Posts, Chat Transcripts, Interviews, Conferences, Online Presentations

Reflect 2e. Videos on Book Websites (e.g., Brain Rules, John Medina)

Reflect 2f. Expert and Domain Specific Blogs (Health Blogs)

Reflect 3g. Big Think (short topical videos from famous people)

Now for the big questions...!!!
99 Second Reflection!!! Jot down 3 things you learned so far.

3. Visual Learners
- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.
Display 3a. Find Open Source Photography (e.g., Flickr)

Display 3b. Everystockphoto.com
(courses on the Winter Olympics, photography, motivation, geography, Canadian culture, meteorology, physics, etc.)
http://everystockphoto.com/

Display 3c. Flash, 3-D Visualization, & Laboratory Software

Display 3d. Visual Resources
(e.g., Periodic Table of Visualization; Visual Thesaurus)

Display 3e. Online Timelines
(US Presidents)

Display 3f. World Trends and Indices (e.g., Worldmapper)
Display 3g. Download and Use Online 3D Sketches (e.g., Google SketchUp)

Display 3h. Explore Virtual Worlds and Online Representations (e.g., Rome Reborn 1.0, University of Virginia, UCLA)

Display 3i. Shared Online Video (TeacherTube and WatchKnow)

Display 3j. Shared Online Video (e.g., eduTube, Howcast, WonderHowTo, ClipChef, Link TV, Monkeysee, Fora TV, etc.)

4. Tactile/Kinesthetic Learners
   - Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.
Wiki Questions
1. Who regularly reads Wikipedia articles just for fun?
2. Who regularly reads Wikibooks?
3. Who seeks Wikipedia for content?
4. Who has edited or written new articles on Wikipedia or Wikibooks?
5. Who thinks it is ok for college students to cite from Wikipedia?

Do 4a. Student Work in a Wiki
(e.g., Wet Paint, a free wiki tool for online collaboration; e.g., medical education)

Do 4b. Wikibook and Wikipedia Editing

Do 4c. Student Blogging

Do 4d. Student Podcasting
(in schools—kids have power!)

Do 4e. Hands-On Frog Dissection
(Net Frog, Univ. of Virginia)
**Do 4f. Online Performances**

Virtual Worlds and Podcasts
(e.g., Shakespeare plays reenacted)

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**Do 4g. Student Video Anchor Creators**

Students create their own YouTube videos to illustrate course concepts.

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**Recap of the Perfect E-Storm....**

1. Emerging Technology
2. Escalating (Learner) Demands
3. Erased Budgets
4. Enhanced Teaching

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**Poll: How many ideas did you get from the second talk?**

- a. None— you are an idiot.
- b. 1 (and it is a lonely #).
- c. 2 (it can be as bad as one).
- d. 3-5
- e. 6-10
- f. Higher than I can count!

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**Stand and Share Ideas**

- Will Work: _________
- Might Work: _________
- No Way: ______________

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**Try the R2D2 Method!**

Try TEC-VARIETY!

Sample papers:
http://www.publicationshare.com/
Archived talks:
http://www.trainingshare.com/