I’m not against computers, but I think they have their place, and it’s not everywhere. When you’re speaking on the Senate floor, you should be speaking from a lifetime of experience, not from what you punch up on a computer.

— Dianne Feinstein
Technology integration & Online teaching and learning

Punya Mishra & Matthew J. Koehler*

Michigan State University
December 2008

* Not that the order matters
we both want to speak

we both want to speak eat
I “won”

Punya eats first

Byron Brown will answer questions
technology
classroom response systems
learning management systems
mobile devices
(phones, mp3 players, e-readers, internet devices)
web2.0 / social media
online video
participatory media
(youtube debates)
second life
cloud computing
Pedagogy
online learning
(classroom management, content production, social presence)
games & simulations
web based resources/data
collaborative tech
immediate student feedback
assessment tech
multi-modal teaching
new Literacies
content

dramatically changed by technology
mathematics
science
engineering
history
political science
education
contexts

online/virtual lifelong learning open courseware (value in the age of free) credentials (in an age of mix-n-match) outsourcing moving away from the desktop
what does this mean for teaching and learning with technology?
everything is changing
changing
changing
roles
changing responsibilities
changing practices
changing cultures
hard to predict
teaching and learning with technology becomes ...
A moving target
How can we think about teaching and learning that accounts for technological change?
TPACK = Technological Pedagogical and Content Knowledge

Contexts
Learning Technology by
Faculty Development Course
Designing online courses

- Prototype a section of the course
- Pilot a section of the course
- Redesign a section of the course
What we learned
What we learned
What we learned
What we learned
What we learned
what doesn’t work
Instead, what works
TPACK = Technological Pedagogical and Content Knowledge
Thanks, Matt
'tis all good... but
So what?
Implications & examples
Implications
Developing approaches that work
Developing approaches that work
Baby steps
Uniqueness
The orthodoxy of online course design
The attack of the clones
Uniqueness
What if all teaching were that way?
One example
(from CEP817 - Learning Technology by Design)
Hi Andy, Regarding your question about hiding posts: I've changed the discussion settings so that people can delete their own posts. There's no edit option through webtalk, but you can delete and repost anything as needed. Hope this helps... Darah

Title: Re: Delete, Delete, Delete
From: Delilah, "Depp"
Date: Tuesday February 10, 2004 - 09:30 AM
Daragh,

Thanks for adding this feature. It looks like other people are experiencing the same difficulty with the quotations disappearing. I'm not going to worry about it for this first post, but it is good to know that if I mess up a post too badly I can delete it and start over!

Andy

Title: Re: Delete, Delete, Delete
From: Polon, "Nobby"
Date: Tuesday February 10, 2004 - 12:30 PM
On designing error messages

It's like, you know, a 404 file not found!

Please email Puuya (puuya@msu.edu) and let him know that something's missing...
...and then get back to the main CERES page.

Mandatory official MU prose follows:
You have encountered some sort of problem. Please email VU Help Desk at help@vu.msu.edu or call
the MSU help line at 1-517-332-1234.

Access Forbidden

You shouldn't be here!

Please go back to the main CERES page.

Mandatory official VU prose follows:
You have encountered some sort of problem. Please email VU Help Desk at help@vu.msu.edu or call
the MSU help line at 1-517-332-1234.
Reflections on learning

TE150 - fully online

Pick any card from the deck below and commit that card to memory.

Be careful not to indicate which card you picked with your cursor.
When you are finished, click the red button below.
The importance of Creativity!
Psychology is a science, and teaching is an art...
... and sciences never generate arts directly out of themselves. An intermediary inventive mind makes the application by using originality.

~ William James
From technology to Educational Technology
The need for creativity
What is creativity?
Novel, fresh, unusual, unique, surprising, startling, astonishing, astounding, germinal, trendsetting, radical, revolutionary, influential, pioneering...
UNIQUE

JUST BECAUSE YOU ARE UNIQUE DOES NOT MEAN YOU ARE USEFUL
Effective

**effective**, valuable, important, significant, essential, necessary, logical, sensible, relevant, appropriate, adequate, effective, functional, operable, useful, user-friendly
Whole

whole, organic, ordered, arranged, organized, formed, complete, elegant, graceful, charming, attractive, refined, complex, intricate, ornate, interesting, understandable, meaningful, clear, self-explanatory, well crafted, skillful, well made, meticulous, careful
thus a creative product is novel effective whole
Examples
Look for T, P, C & overlaps

Look for Novel, Effective, Whole
Reflections on learning

TE150 - fully online

Pick any card from the deck below and commit that card to memory.

Be careful not to indicate which card you picked with your cursor.
When you are finished, click the red button below.
I agree

me too!

t nice post

I agree

Hmm...

Good job

I agree

me too!
Pick any card from the deck below and commit that card to memory.

Be careful not to indicate which card you picked with your cursor.

When you are finished, click the red button below.
facebook
Think of C, P & T coming together (in a specific context)
From tech to Ed tech
Intertextuality & Search Engines
Understanding functions

Dynagaphs

Applet 1: Dynagaphs (move by dragging the small circles at points A and B)
Summing up
the walls between content, pedagogy & technology exist only in our minds
A question
Where do EDUCATORS live?
Where do **YOU** live?
Where do I live?
Where do we live?
Be it blackboard
This is where EDUCATORS live
This is where you live
This is where I live
This is where we live
Always have
Always will!
In the near future, higher education faculty will not be replaced by technology. However, faculty who cannot use technology will be replaced.

— anon
Thank You

Faculty development by design: (2007)

Handbook of tpck for educators (2008)

mkoehler.educ.msu.edu
punyamishra.com
tpck.org