
**Summary**

I. Definitions

a. Educational technology: “the study and practice of facilitating learning and improving performance by creating, using and managing technological processes and resources” (p. 48)

b. TPACK: “Technological Pedagogical Content Knowledge” (p. 51)

c. Melioration: “the competence to borrow a concept from a field of knowledge supposedly far removed from his or her domain, and adopt it to a pressing challenge in an area of personal knowledge or interest” (Passig, 2007, quoted in this text)

II. Conceptual structure (the article in two sentences)

a. New technology is often heralded as revolutionary, as having incredible promise for education, but most of these predictions end up unrealized.

   i. Requires overlapping pedagogical and technology knowledge (knowledge of tech itself isn’t enough)

   ii. Technology resistance (think of Socrates’ prediction that writing would hurt education because people wouldn’t have to memorize so much anymore)

   iii. Requires focus on how to teach subject matter with the tech (rather than just focus on tech itself; isn’t this overlapping with or the same as point i above?)

b. Rapid changes in tech only hurt its adoption (“this speed of technological evolution may be educational technology’s unwitting Achilles heel” p. 49)

   i. Technology becomes obsolete so quickly/ may not be “worth it” to invest time in learning it

   ii. Fast technology change → fewer people keep up → smaller supply of “skilled workers” → greater wages for them (and greater income inequality in general (quotes Brooks, 2008))

   iii. Keeping up with tech requires continual learning/ some teachers may not be willing to invest the time and energy (and tuition $)

   iv. Faced with changing tech, teachers have 2 options:

      1. Not upgrade… advantage, no learning curve, maintain productivity short term BUT long term hindered productivity: can’t do the new things, plus hurt when compared to peers who can do those new things

      2. Upgrade: short term hurts productivity (learning curve) but long term maintains it

c. Need to reconsider what is meant by teaching teachers “technology”

   i. Learning specific programs: can’t keep up, ultimately doomed to fall behind

   ii. Learning broader, generative frameworks of thought better

   iii. Critical to also learn how to integrate tech into teaching

      1. Flexibility of thought

      2. Willingness to tolerate ambiguity

      3. Willingness to experiment with how tech can best be used to teach subject matter

d. TPACK model (ex: using Audacity to measure echoes and calculate distance to moon/ learn physics and uncertainty calculations)

   i. Stresses how technology interacts with pedagogical and content knowledge
ii. Technologies/innovations aren’t necessarily relevant for teaching
   1. TPACK supposed to help teachers figure out which are quickly and thereby determine which technologies to invest time in learning (how?)
iii. Teacher ed programs shouldn’t specify what things are educational technologies: should instead give students the skills and flexibility to apply their own technologies to the classroom

Reflection

I think most of the people in this program are familiar with the TPACK framework, but this is the first time I’m encountering it formally.

A few years ago (maybe more than “a few”), I took AL 881 here, “Teaching with Technology.” In it, we learned some specific technologies. I created my first Dreamweaver website and learned some basic photo manipulation in Photoshop. The course was taught as more of a technology-how-to rather than an integration of technology, pedagogy, and content, but projects were open-ended enough and learners were self-directed enough that we all related our projects to our specific content and we certainly brought our pedagogical knowledge to bear. This focus was probably more learner-directed than embedded in the course. (I suspect, had I made a math-learning website, for example, he might have redirected me.)

While I agree that good employment of technology in the classroom needs to work at the intersection of teachers’ knowledge of content, pedagogy, and technology, I’m having a hard time understanding how the model would have allowed the instructor of AL 881 to make the class better for us. The skills that instructor gave me have transferred, at least sort of: I integrated my pedagogical and content knowledge in my projects, and even the specific tech skills have sort of transferred-- my experience with Dreamweaver will help me create a more usable web portfolio using Word Press this year (I hope!), and the Photoshop skills transfer fairly well to other image manipulation programs. Student s in the class transferred our tech learning to our pedagogical and content situations—I created web pages that I later used for teaching an online “Writing about Literature” course. The instructor didn’t talk specifically about writing in the course, as his learners were teachers of various content areas. I suppose, if he had the luxury of a class where we all taught similar content to similar populations, he could have addressed those issues better.

I would appreciate others’ opinions on how this model could/should inform a course like this “teaching with technology” course. Am I missing something?