Pedagogy, Ubiquity, Opacity: ICT (Information and Communication Technology) in Higher Education

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Pedagogy, Ubiquity, Opacity: ICT (Information and Communication Technology) in Higher Education

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It is astonishing to me as I look back over my 13 year career at Pacific University just how far I have gone down the ICT path. I was once an outspoken critic of technology in the classroom. As a matter of personal principle I believed (and still believe) that students learn best when they participate in informed, sustained conversation with their professor. Overheads, slide shows, films, powerpoint presentations, etc…. these were all just gimmicks and flourishes which entertained but did nothing significant to educate. I viewed all such devices as one notch below the “lecture” in the pedagogical food chain. But now I am an unvarnished evangelical for ICT in higher education. What happened?

My conversion to ICT was not an easy one. I still do not own a television set and am quite certain I will never own one. My experiments with ICT in the past have been, in large measure, miserable failures. Either the equipment would not do what I wanted it to do when I wanted it to do it (rather important for a professor trying to teach) or using the technology took valuable intellectual resources away from the subject and wasted them on the technology, or using the technology simply did not have the desired heuristic impact. Another reason that I have been a skeptic is that I’m not convinced that what we are doing with computers and the internet isn’t doing something elusive and harmful to us – something we just can’t quite see at this stage because we are too close to the technology. As I observe myself and the rest of the world absorbing the computer wholesale into our lives I’m quite aware of Marshall McLuhan’s slightly worn out remark that the “medium is the message.” Everything that Neil Postman 1 has written about the dangerous irreversible impact of technology on education and culture is, roughly speaking, true. Nevertheless… I am a proponent of ICT at every level in the work of higher
Three phenomena have changed my thinking about ICT: 1) increasing numbers of bright, techno-competent, techno-expectant students, 2) an ethernet connection in every classroom, (an illustration of what I call ubiquity), and 3) developments in the direction of what is now called ‘opacity’ in ICT.

Let’s take these one by one. First let’s take a good hard look at the realities of the online student. I noticed a student with a cell phone in my First Year Seminar class a few weeks ago. I asked the whole class, “How many of you have a cell phone?” All but two students in a class of 20 raised their hand… I was stunned. We spent an hour talking about ICT. This year I gave these students a full hour of WebCT (an interface commonly used for course materials in higher education) training and made it a central part of the course. Every class period I plug in and have student remarks in front of me online. As of November 14, 2001 this class of 20 has posted over 500 online discussion notes. Students today are techno-competent and techno-expectant. The good teacher is able to reach in to where the student is, where he/she really lives, and use that material to teach. These students know about Google, chat rooms, internet-2, and tiny sex. They don’t watch as much TV as the students before them and they know how to hang out online. Much has been written about the cultural milieu of the online generation. Because that’s where students are, that’s where I think we must begin. I now think that many of our early criticisms of the internet are simply false, e.g. it is impersonal, the information is generally bogus, it creates a kind of laziness in the user, it tempts students to do a google search instead of taking a trip to the library, etc.

The second phenomenon that has influenced me to take the full plunge into ICT is the evolution toward ubiquity. Ubiquity refers to everywhere-all-the-timeness of the technology. I mentioned the presence of ethernet connections in every class room. In the not so distant future computers will be linked to the net instantly without wires whenever they boot up on campus. Handheld computers will have much of the functionality of today’s desktop and will be integrated with cell phone technologies.

This ubiquitous connectivity is already having an impact on us and will have a greater impact in the near future. With our various subscriptions through the library system (ORBIS for example) we will have, with the touch of a button from anywhere we happen to be, access to vast amounts of high quality information and instant communication connections with anyone owning an email address.

On my belt is a handheld computer that contains the class list with all the information about every student for each class that I teach. In one class I have most of their papers in memory, which I can mark up while taking the public transport into Portland and later sync with my notebook, sending the papers back to students and leaving a copy for me in the event they want to discuss my remarks later or challenge a grade. On that same trip into Portland I can read passages from Plato’s Republic or Dostoevsky’s Demons, collect them with questions for
discussion into a simple page which I can then upload to WebCT before I have dinner that night. When students make presentations in class I take notes in an email form through WebCT which is always open and on my desk. At the end of the presentation I hit send. The student has notes waiting for them at home and I have a copy of the entire report, not just the grade. A guest lecturer on genetic privacy in Oregon mentions a URL with information on SB 114. Within 20 seconds the URL is a part of our WebCT course. Any student can click on an icon and work with the original text of the genetic privacy bill.

My First Year Seminar students do two hours of service learning in community sites around Washington County. The site supervisors have computers. They become participants in class discussions and work out all the sometimes complicated logistics of their work online. No ambiguity about who called whom and who did or didn’t return calls, etc. This is part of what I mean by the ubiquity of ICT. Time and space work differently with this ubiquity of the technology. Not better or worse than the time or space we are used to... just differently.

Once handheld computers are more generally understood, they will be used by virtually everyone. Most of us will do what the futurists predicted many years ago... wear our ICT, Dick Tracy style. Handhelds have become incredibly powerful. They sync seamlessly with a desktop or notebook computer. Many come with bright color screens which are easy to read and manipulate. With the Handspring Visor devices one can carry over a hundred powerpoint slides into the classroom, connect wirelessly to the internet, take digital photos, and carry hundreds of megabytes of information (books, images, music, even video) using flash memory. These devices are only now beginning to be picked up by a few universities and used in experimental ways. Palm and the University of South Dakota is one such collaboration. There is a high school in North Carolina that actually requires the use of a handheld by all of its students. These devices illustrate the ICT evolution toward opacity.

What is opacity? Opacity means that the technology becomes invisible to the user. It means we no longer need to pay attention to the technology because the technology simply becomes a natural extension of our normal sensual powers and our ability to communicate with others – show them things, work with them, collaborate. That is the current evolutionary path of ICT. And that is what brings us back to the beginning – the discussion of pedagogy and ICT. I am a teacher. That’s what I do. I still believe there are no shortcuts. Lively, informed, sustained conversation and active collaboration on projects that matter – that’s always been and will remain the telos of education in my view. It is just that I no longer believe that ICT interferes with this goal and in many cases actually helps it along.

This still leaves us with many questions. I’m acutely aware that I have not addressed any of the issues related to the more general attacks on ICT because of the way it is believed to be changing our self-understanding in ways that bode ill for the future of education and the health of our culture. As I wrote earlier, I think that Neil Postman is roughly correct in his analysis of these matters. Unfortunately, this means that I find myself in the peculiar position of being a Luddite permeated with the technology I seem to reject... I have thought a good deal about this and
hope to write about it in this journal sometime soon.


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8 THOUGHTS ON “PEDAGOGY, UBIQUITY, OPACITY: ICT (INFORMATION AND COMMUNICATION TECHNOLOGY) IN HIGHER EDUCATION”

**cash zone**  
on February 4, 2014 at 5:18 AM said:

I’m gone to inform my little brother, that he should also pay a visit this web site on regular basis  
 to get updated from most recent news.

**cash flow statement**  
on February 4, 2014 at 2:35 PM said:

Can you tell us more about this? I’d love to find out more details.

**stocks with high short interest**  
on February 4, 2014 at 9:39 PM said:

What’s up, just wanted to tell you, I enjoyed this article.  
It was inspiring. Keep on posting!

**make money helping others**  
on February 5, 2014 at 12:04 AM said:

Pretty nice post. I simply stumbled upon your weblog and wished to mention
that I’ve really enjoyed browsing your blog posts.

After all I will be subscribing on your feed
and I hope you write again very soon!

**personal secured loan mortgage uk**
on **February 5, 2014 at 12:05 PM** said:

Have you ever considered about adding a little bit more than
just your articles? I mean, what you say is fundamental and everything.
However think of if you added some great images or videos to give your posts more,
“pop”!
Your content is excellent but with images and videos,
this website could definitely be one of the best in its
field. Fantastic blog!

**Success Jay Z**
on **February 5, 2014 at 5:04 PM** said:

Good day! I know this is kinda off topic nevertheless I’d figured I’d ask.
Would you be interested in exchanging links or maybe guest writing a
blog post or vice-versa? My website covers a lot
of the same topics as yours and I believe we could greatly
benefit from each other. If you’re interested feel free to shoot me an e-mail.
I look forward to hearing from you! Great blog by the way!

**Make Google Cash Phone Number**
on **February 5, 2014 at 11:01 PM** said:

It’s amazing for me to have a web site, which is valuable for my experience.
thanks admin
What I do not understand is in truth how you’re no longer really a lot more neatly-preferred than you may be right now.

You’re so intelligent. You already know therefore significantly relating to this matter, produced me individually consider it from numerous varied angles.

It’s like men and women don’t seem to be involved unless it is something to do with Girl gaga!

Your own stuffs excellent. At all times maintain it up!