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Trivia versus Power

Let's be clear on exactly how we are using technology in education

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In these days of increasing technology use in classrooms—and of more and more cases of every student in those classrooms having his or her own device—there are some useful distinctions we should all insert into our common language to guide our teachers' and students' technology use.

One of the most important of these is distinguishing what I call "trivial" uses of technology from "powerful" ones.

I often hear kids, for example, praise teachers' putting all homework assignments online—it is a use of technology they find valuable. And I agree that for students who have permanent access to computers this has clear benefits, which include never losing an assignment, never forgetting where it is, and avoiding paper clutter.

This is, however, nothing more than doing an old thing (assigning homework) in a new way (electronically). Even though it's accomplishing something useful, it is a trivial use of technology. It has no more educational benefit than, say, putting papers in a folder, even though it may be a more modern—and for many students a better—way to do things. Activities like putting assignments online are certainly not a justification for students' having devices; they are, rather, useful—but trivial—side benefits.

I have seen plenty of trivial uses of computers—useful and not—in education. They include having students enter text (sometimes copying it from books), having them paste together simple illustrated presentations in PowerPoint, having them make green-screen videos of themselves doing silly things in front of images of various parts of the world, and even doing simple, single-word searches. This is all trivial stuff—with no power, and no learning. Once students have done these things once in their lives, continuing to assign them such unimaginative, uninteresting, unchallenging, non-powerful tasks is deliberately inviting them to go on Facebook—in fact, we might as well be distributing engraved invitations.

So what's the alternative? Insisting on using the devices powerfully! What this means is that every request that a teacher makes of a student to use technology—in or out of class—should include, in addition to the content or curricular-related part, one or more of the following additional requirements as part of the assignment:

- Determine the most powerful way(s) to use your device to do this.
- Do the assignment using your device in a new (and powerful) way.
- Invent a new, technology-based way to do this.
- Include something technological you've never done before.
- Use the device to connect in a new way to do the task better.

It should include, as well, sharing the most interesting thing(s) you find with your teacher and your classmates. In short, every assignment using technology should involve using the technology to innovate.

Yes, *every assignment*. If we think of technology only as a pencil (i.e. something that, once mastered, we can take for granted and focus only on the "content,") we ignore much of technology's power to help students learn. Only powerful uses of technology really do that.

This is NOT, importantly, a counter-example to arguments I have advanced in other places that technology is a tool for learning, and not the learning itself (or my admonition to focus on the "verbs" of education rather than the "nouns)—it is *in addition* to that. Understanding the *power* of the technology—and not how to manipulate it—is an important part of 21^{st} century kids' education and learning. Our kids can learn content and technology's power at the same time. And they should. If we're only going to give kids trivial things to do with their devices, we'd be better off saving our money by not buying them. Even a whole *pile* of trivial uses, by itself, does not justify introducing powerful iPads or laptops to students—only powerful uses do.

So what are some of the uses that I would call "powerful"?

- Connecting with individuals around the world (particularly with experts in particular fields and with individuals living through historical moments).
- Adding to the world's knowledge (such as by contributing to important databases).
- Designing something new and useful to the world (such as an app).
- Putting together new data, and visualizing it in new ways.

- Making a video (or other work using technology) that changes something in the world for the better.
- Using technology in a new, more powerful way than it has ever been used before in your school.
- Enlisting, via technology, underutilized assets (such as parents, or the minds of old people in retirement homes).
- Providing useful information to others (such as a blog not just of writing, but of practical problem solutions, or by making and posting helpful how-to videos).
- Figuring out new uses for Facebook or other existing tools that are helpful for learning what the class is studying.
- And there are many, many more.

What makes these uses powerful, and not trivial, is that they illustrate to students the new capabilities that are in their hands with these devices—capabilities that students, and people their age, in the entire history of man, never had before. This is empowerment.

Just having students post on a blog can be trivial—it depends who will read the blog, and how widely the blog is made available. But writing an individual or class piece that gets published in the Huffington Post is definitely powerful. Just using apps or online tools to do simple experiments is trivial. But doing experiments that use people online from all over the world as subjects—and demonstrating something never before known—is very powerful. Just reading tweets from places like Egypt and others that are currently in ferment is useful—but trivial. But using your (or your class's) thoughts to become a twitter poster that people in those places want to follow is incredibly powerful.

We should also bear in mind that asking or allowing our students to do only—or mostly—trivial things with their powerful devices sends them several negative messages: That we don't know any better, for example. Or that we are too lazy to figure better things out. Or that we are too scared to ask their opinion on what is trivial versus powerful. In all of those cases both we and our student lose.

So next time someone tells you about students' using technology, think about whether those uses are powerful, or just trivial. In terms of education, the answer matters a great deal.

Marc Prensky, author of the 2001 article Digital Natives, Digital Immigrants, is an internationally acclaimed thought leader, speaker, writer, consultant, and game designer in the field of education and learning. He is the author of four books: From Digital Natives to Digital Wisdom (Corwin, 2012) Teaching Digital Natives: Partnering for Real Learning (Corwin, 2010), Don't Bother Me, Mom, I'm Learning (Paragon House, 2006) and Digital Game-Based Learning (McGraw Hill, 2001). His next book, Brain Gain: Technology and the Quest for Digital Wisdom, will be published by Palgrave Macmillan in August. Marc is the founder and CEO of Games2train, a game-based learning company whose clients include IBM, Bank of America, Pfizer, the U.S. Department of Defense and the L.A. and Florida Virtual Schools, and is co-founder of Spree Learning Games, a new "curricular games" company. Marc holds an MBA from Harvard and a Masters in Teaching from Yale. More of his writings can be found at www.marcprensky.com/writing. He can be contacted at marcprensky@gmail.com.