Let's Be "Digital Multipliers"
Eliminating the Digital Divide Is Something Educators Can Do

By Marc Prensky

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Whenever I speak to educators I typically get some variation of the "digital divide" question:

> "I want to use technology, but my students don't all have equal access to it. Many (or some) don't have computers at home. Some (or many) don't own a cell phone. Some of their families can't afford monthly connection charges. By requiring they use this technology, am I not depriving these kids of an equal education?"

Clearly, the desire to not deprive any child of a good, and equal, education is laudable, and represents the best of intentions. But in some cases, our good intentions can lead us to behaviors that are not in the best interests of all our students.

An example of this is the following, which I once heard a teacher say. "29 of my students have computers at home, but one doesn't. So I don't assign computer homework, because it wouldn't be fair to that student."

What about the other 29 students? Do we deprive 29 to be fair to one? Or do we find another solution for the one?

Whether our schools, or our students, can afford it or not, all today's students need technology. Already, truck drivers have GPS, computers and company-provided cell phones. Delivery people have hand-helds. People in business are increasingly tethered to their Blackberries. No matter how old-school one is in thinking that the tools of the past are sufficient for a good education, it does not take much foresight to realize that most work in the future will be technology-mediated.

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I think we should scrounge, beg, borrow and steal (figuratively) to get at least some technology to every student who doesn't have access to it, as quickly and as often as possible. But, of course, we can't just go out, as individuals and buy the technology for those who don't have it. So what do we do to bridge, and eliminate, the digital divide in our schools and our students?

Accept Some Inequality

First, it's important to understand that not every student needs to have the same exact technology. Some think that school (or at least public school) should make sure every student has exactly the same things: the same pens, pencils or paper, the same textbooks, the same lunch, even, in some places, the same clothing (i.e. uniforms.) We either provide all of these things to all students at public expense, or we don't use them. This may make sense for some things. But I don't think it makes sense for digital technology.

Digital technology access is unequal by its nature – or at least by the way we make and sell it – and always will be. We can set a floor – a set of minimum specifications – but some people will always want more. There is a huge variety of feature choices available, and each device is a set of tradeoffs, enabling every person to get the feature set he or she prefers and can afford. Few of us have the same phones, computers, stereos, speakers, etc, nor would we want to.

So the best solution may not be providing the same technology to every student, but rather finding accommodations for those who don't have their own. Increasingly, in the workplace, we see young workers wanting to use their own technology rather than what is provided. While getting cheaper (the $200 computer is here!) technology still costs money, which means that not everyone will get it in the same way, any more than everyone gets to work or is able to dress the same way. So perhaps we should not care exactly which technology our students use, and we should let the ones who have more use it. But we should make sure they are all using something.

So What Can We Do?

What we must be concerned about is students' wanting or needing access to a minimal level of digital technology and not being able to get it. If we, as educators, make it our business to see that every student has "enough" access, rather than "equal" access to digital technology, and is required to use their technology every day for difficult, stimulating, collaborative, world

involving projects, I think many, if not most of our "digital divide" issues will go away.

Here are some suggestions for accomplishing this *without* more money from the administration, and *without* spending money from our own pockets.

- First, let's be sure we use all the technology we do have at hand, and that it is the students who are using it. If there is an electronic whiteboard, the students should be using it to present, not the teacher. If some of our students have their own laptops or cell phones, let's make use of them.

- Next, let's maximize sharing. If not everyone in the class has a particular piece of technology, a teacher can put students into groups around a device, such as a computer or cell phone. The lesson/tasks can be structured in such a way that every student is required to use the device, with students teaching their peers and taking responsibility for all students knowing how to use the technology. Students can also share devices, keeping their own work on cheap USB drives.

- Then, let's increase access time. Places where all students can access technology, such as libraries and computer labs, should be kept open as long as possible – ideally every night until midnight – and on weekends. If transportation or safety is an issue, we can find volunteers to run carpools.

- Finally, let's do our best to get some technology for those who don't have access to it. Building one's own computer is inexpensive and easy, not to mention a great learning experience. Amazing bargains are available on eBay and other places online. Perfectly good cell phones and computers are thrown away and recycled regularly. With open source, Google Docs and shareware, software costs have dropped radically or disappeared. Plenty of individuals and foundations are willing to donate. Let's use our creativity to get hold of as much of this stuff as possible. And then let's use the students to maintain it and keep it useable.

If we (and our students) are willing to be creative, I see no reason why there should be a digital divide *at all* anywhere in the U.S. As educators, we should take it as our responsibility to see that this no longer happens. It is easy to pass off eliminating the "digital divide" as someone else's responsibility, but it is really our own. This is a clear place where educators can be a big part of the solution – even without additional funding. I suggest we begin thinking of

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ourselves as "digital multipliers" – i.e. people who find creative solutions that bring every student, no matter what his or her background or income level, into the digital world – and get the job done.

Of course, there is also a second, more subtle, cause of the "digital divide." Certain educators, who are themselves afraid of the technology, are not making the best efforts they could to have all their students use technology as much as possible. Although this is often justified in "our kids don't need technology to think" language, it is really just another form of digital division and deprivation. It must be fought.

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