

Eliminating the “App Gap”

By Marc Prensky

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The latest generation of smart phones—iOS phones, Androids and now Windows phones, have been dubbed “app phones” by David Pogue of the *New York Times*. And for good reason: although the platforms are only a few years old, the number of apps available on all three combined is fast approaching a million. And so—no surprise—we are starting to hear worries about an “app gap.”

Should we be concerned about the fact that today there are a great many students who already have phones, or iTouches or iPads with the ability to download whatever apps they need or want (and the accounts and means to do so), and, of course, many more that do not? I think we should absolutely be concerned, because apps include some of the most useful learning tools that have ever been available.

The apps on my phone can translate printed words from Spanish to English (or vice versa) just by pointing the camera at any text (WordLens). They can make and edit voice and video. They can do all kinds of calculations and conversions, and give me access to real time data in a variety of fields from weather to the stock markets. They can lead me to a library of hundreds of thousands of downloadable books, and store those books as and after I read them. They can do math, speak languages, and, of course access the Wikipedia and, on many phones, You Tube.

My son, a first grader, has on his iTouch apps for learning to read and write in English and Japanese, a library of appropriate books to read and listen to in both languages, math games, word games, reading games, logic games, history games, geography games, and many more, all of which he has used.

So as education professionals—especially education IT professionals—we’d better be working on a solution to provide apps to everyone. Because, as anyone who has seen them surely knows, apps are already a huge tool for useful and engaged learning. And they are only getting better, at an exponential rate.

If our school boards were smart they would be doing everything they possibly could to narrow or eliminate this “app gap,” *even at the expense of buying books and/or laptops*. Apps are in my opinion, preferable to books and even laptops as learning tools for several reasons, all of which result from the strong and unique combination of factors that app devices bring to the table.

- Apps can be designed for very specific purposes. My son learned his alphabets in two languages by tracing letters.
- Apps will soon exist *across the entire school curriculum*, that can be downloaded piece by piece as needed, and discarded when they have served their purpose.
- Apps increasingly come with intuitive, touch and voice controlled interfaces.
- Apps recruit all the other features of the devices they are on, such as the camera, the videocam, voice recording, phone, wi-fi connection, Twitter and Skype, for example.
- Apps can incorporate capabilities from the cloud: text to voice, voice to text, voice recognition, storage, computing capacity, etc.
- Apps can do everything computers or books can, incorporating all of those tools' capabilities, and far more.
- And, of course, apps *fit in a student's pocket*. The exception, of course, is the iPad and other tablets. I am all for a variety of screen sizes, but until our screens become flexible and unbreakable (i.e. the day after tomorrow) I'd stick with pocket size for students. Even if we adults can't always read the small screen easily, pretty much all the kids can.

In my view, *every* student can greatly benefit from, and should have access to, apps. But not all of them have them. So what do we do?

To answer this, let's begin by recognizing that apps have changed the financial equation. Many of them—quite useful ones—are free. Even for those that cost, they are fast breaking the publishers' power to sell us big textbooks covering everything—much of which neither teachers nor students want or need. Apps also break the monopoly of the big software sellers—we can find basic text and spreadsheet apps for free, or close to it. Just as single songs replaced albums as the purchase unit, apps can be bought individually, only where they are necessary and free alternatives do not exist. The cost-per-app is minimal, almost certainly equal to or less than the cost-per-chapter of a textbook. And while sales reps argue that it is easier, or even better in some ways to buy a suite" of programs specifically designed and customized for schools and learning, this is only an advantage if those suites are priced comparably to alternatives. And alternative app suites that are free and nearly as good are bound to appear.

Reflect, for a moment, about what our savings (and available resources) will be when we can bypass publishers and software vendors entirely. It is certainly time to begin to think in this way, and to closely watch those schools and districts that have begun to do it.

Of course, apps do require devices (and download access). But an iTouch now costs about the same as just one high-end pair of sneakers (a basic iPad Touch costs \$199 at retail; Nike has kids' sneaker models online for \$140.) Or the 3-4 pairs of cheaper sneakers that many kids go through in a year. If Apple doesn't lower the price of the iTouch even further, cheaper non-Apple app-running alternatives are sure to proliferate. So cost is not really an issue, although many details are still to be worked out.

Remember, apps for learning are still in their infancy. The many that do exist point the way to enormous teaching power, making the small devices that run them enormously powerful learning tools, both inside and outside school. Today, with apps, students can learn to read and write, identify and learn about people, places, plants, and animals, have words or concepts they don't know explained to them, collect scientific data and run experiments, participate in history through simulation, participate in virtual teams through Face Time and texting, and participate in live world events as they happen through apps like Twitter. Unlike school books, there are apps for just about any area a student is interested in or passionate about.

Yet even all that is not the most powerful thing about apps. The most powerful thing about apps is this: wherever apps are lacking for something students need, we, ourselves—more and more of us—can create them—*especially with our students*. And doing so is both good for our students' future, and likely to help many of them get jobs.

Does your school—yes, even your elementary school—offer classes in app development? If the answer is no, you had better get started. If you've no idea how, start online with *AppDevSecrets*. Every school and class should be creating its own apps, just as they create their own websites. We need to create apps (and You Tubes) for helping teachers learn to integrate apps and app development into all their courses, for integrating parents into the learning process, and for teaching all the topics we now cover in our curriculum. If your institution creates good and useful apps, they can become a source of school pride and even, potentially, a source of income.

Created in large part by educators and students, apps will become, I predict, a huge piece of the 21st century learning process. It is time to get on board the app train, or cede your job to someone who will, because the time to begin eliminating the “app gap” is right now!

Marc Prensky, 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), with two additional books under contract. 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. He 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. Marc can be contacted at marc@games2train.com.

