Students, Teachers and Technology: IT Consumerisation in Education
By Bob Moore, Director, Business Development – Global Education, Dell

Youth today are increasingly more exposed to various types of new technologies – smart phones, new generation tablets, PSP-portable gaming devices with WiFi connectivity. They read about the latest and greatest gadgets in magazines, see them on TV and at their friends' houses. For some time now, the ways that students consume information and communicate have been evolving and schools need to be aware of how this affects the way that students learn. With reports that schools are facing budget cuts, a survey earlier this year revealed that ICT managers fear that students are being held back by falling technological standards and a lack of investment in ICT. Students are tempted to use personal devices at school, which are often trendier and more advanced than what many schools have to offer. But what challenges does this present within a school IT environment? Let's look at the trends, challenges and benefits of the concept of the consumerisation of IT – the use of personal devices in professional settings, within the school environment.

Trend #1: The blurring of school and home
More and more, students are engaging with classmates and even teachers from home. In comparison to past generations, today's students continue to learn well after the day's homework has been completed. Learning takes places via various online communications tools, where students might use Facebook for example, to discuss some work they are doing with classmates. Some schools have intranet forums where students ask teachers school work-related questions online. The difficulty is when students then come to school and use aged technology that doesn't enable them to work in the same way. This creates a disconnect between children's school life and home life.

Trend #2: The emergence of new mobile devices
With each era, there has been exponential growth in the number of devices in use at any one point in time: When there was a worldwide market for a million mainframes, the market for minicomputers was closer to 10 million+ units, the early PC market was 100 million+ units, and the desktop internet market is 1 billion+ units. In the next era – mobile Internet devices including smart phones, media tablets, and internet-connected personal media players – the number of new devices will far exceed the size of the total PC market. According to Vinod Khosla[1], a prominent entrepreneur and investor, it is possible that ten years from now the full market for these devices could be as high as 10 billion units.

With these changes and the increasing affordability of mobile devices and tablets, students are showing up to school with their personal devices with increasing frequency. More and more, students want to be able to seamlessly move between school and home and continue interacting with teachers and peers online.

Trend #3: Youth expectations of school IT are changing
Consumerisation of technology – the use of personal devices in professional settings - is happening in the workplace. As students see their parents using their personal mobile devices for work, the expectation is that they should be able to do the same at school. Already, students take their mobile phones to school, and as these become smarter devices, students will want to do smarter things with them. At home, students use more mobile technologies with slick user interfaces that have very high mobility with anytime, anywhere access to data and apps. As a result, they have higher or different expectations with regard to IT that their school provides. It's not so much that students want to use their personal devices at school, rather they are no longer satisfied with the inflexible solutions that many schools provide. The challenge for schools then is to create IT environments that give the flexibility and user experience that the students and teachers are increasingly accustomed to in their personal lives.

What are the risks and challenges?
More so now than ever before, it is critical that education be relevant to students. One way to help that is by using technologies and tools that students are familiar with in their daily lives. Also, these new devices give students a tremendous amount of freedom, or independency, in how they access information and communicate with others. Adults no longer control student access for the most part. This means that eSkills, such as information and media literacy are increasingly important. With this, comes the responsibility of teachers to ensure that students are not exposed to inappropriate content on the web at school. While most kids will be tech-savvy in a certain sense regardless (or in spite of) what happens in school, they may not have the skills to discern between good and bad information, or knowing how to synthesize a bunch of information in order to create new meaning.

The change in how IT leaders manage their environments poses another challenge. The technologies needed to create flexible environments require different skills on the part of the IT staff; for example in highly

virtualized environments. It also requires re-thinking of what actually needs to be controlled. This is often the most difficult hurdle.

Should schools decide to pursue consumerisation of IT, they need to have a plan for how to provide for those students who do not have access to their own devices. There is no easy answer to this and a certain reality is that there have always been these resource gaps in schools. The only way to actually address this systemically is for the school to re-think resource allocation so that it can provide mobile devices to all students.

Getting students who are using different devices to access a school network can be difficult and can result in classroom lesson disruptions. IT departments that prioritise application architectures that store data securely in the cloud or on servers, enable secure access from student-owned devices, mitigating the need for students to store data locally.

Recommendations/ benefits

For schools considering a consumerisation of IT approach, I recommend this:

- Know your school community. How many students have access to mobile devices? What kinds of mobile devices do they have? What kind of internet access do they have? WiFi, 4/3G, etc.?
- Ask yourself: What problems would consumerisation of IT seek to solve? What are your goals?
- Does the school have sufficient, high-quality digital content and communication tools that the students can use with the mobile devices?
- Do you have policies in place to help manage access and use of the devices while at school/in class.
- Seek community input. This should be a community initiative as much as it is a school initiative.

The main benefit of consumerisation of IT in education is creating an environment for students that is more relevant to how they work, learn, and communicate outside of school.

In addition, if the divide issue can be addressed (or if it is not relevant to the school) consumerisation of IT can provide students to anytime/ anywhere access to digital content, learning tools, tutoring and other opportunities beyond the normal school schedule.

[1] Khosla, V. (2010, November 16). Innovation vs Punditry Presentation 1 [Powerpoint slides]. Retrieved on January 18, 2011 from 9. http://www.web2summit.com/web2010/public/schedule/detail/15537