



STAFF PHOTO/SJOERD WITTEVEEN

Markville Secondary School students use a variety of technology in their Grade 11 history class. Jeffrey Szeto (from left), Anthoula Bourlias, Araan Divecha and Nikita Wallia use an Apple iPod, iPad, MacBook and iPhone to research the Rwandan genocide.

It's wireless world in today's classrooms

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What did you do in school today?" The answer, from today's students, may surprise you; it may not be the usual reading, writing and arithmetic.

There's a fourth R — revolution — at work in today's classroom and it's causing profound change in the way our children spend their school day. Sure, many still sit in desks in rows, facing the teacher and filling in worksheets, but more and more students in York Region are doing their own thing, facing each other and their computer screens.

It's called digital learning and it's about making sure schools keep up with the real world — or more accurately, *catch up* with the real world — because experts agree, the world has gone ahead, leaving the education system far behind.

A glance at any playground, mall or family room tells you an irrefutable fact: our kids are tethered to technology. From pockets to backpacks, basements to bedrooms, digital media is ubiquitous for this Network Generation, connected to media almost every waking minute except for the time spent in school.

And that, a growing number of educators warn, is the problem.

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Students are expected to tynplug when they walk through the school doors. Teachers are expected to be "cellphone police" at the same time they struggle to engage a generation used to living life on screen.

They wonder how they can make a school system, with its old-fashioned textbooks and "sage on stage", seem relevant.

Leaders, meanwhile, debate how to engage these NetGenners: Chris Spence, director of Toronto's public school board, is considering paying students to attend; Premier Dalton McGuinty suggests schools allow cellphones in class.

A number of school boards, including York Region District School Board, are at the forefront of a controversial approach: engaging students by meeting them on their own turf — the tech turf.

In Keswick, kindergarten students are tapping on iPads; in Newmarket, a high school history department has gone paperless; Richmond Hill students learn on their cellphones; and in a Markham

classroom, young people are Skyping with students around the world.

Their teachers say the devices are not just bribes to grab kids' attention, but a better way to teach them the higher-order thinking skills they'll need in a changing world.

Three years ago, the York board was one of 12 in the world chosen for Microsoft's Innovative Schools Program, for its community of teachers and students connected through high-tech tools.

Today, the board is a world leader and mentor for those wanting to bring technology into the classroom.

Today, Jan. 13, the digital movement ramps up provincially. Education stakeholders, including trustees, students, directors of education and deans of faculties of education, are meeting with Ministry of Education officials for the first comprehensive roundtable discussion on education in the 21st century.

"Classrooms in Canada remain stuck in the 18th century," says Don Tapscott, an adjunct professor of the Rotman School of Business at the University of Toronto.

Mr. Tapscott was a speaker at the York school board's recent Quest conference that shone a spotlight on this revolution-in-progress.

The author of *Grown Up Digital: How the Net Generation is Changing Your World* warns cyber-savvy

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students can't relate to traditional "chalk and talk" classes. The only way to engage them, he says, is to embrace 21st-century technology.

In its What-If report in 2009, the Ontario Public School Boards' Association echoed the concern, warning young people are learning as much from peers outside school as from teachers and that educators who ignore that "paradigm shift" risk becoming dinosaurs like the North American automotive sector. It's happening already, Mr. Tap-

scott says. The Organization for Economic Co-operation and Development's ranking of 70 countries showed Canadian students are slipping in math, science and reading skills; he says it's because schools are clinging to outmoded pedagogy.

"It's changing so fast," adds Ontario public school board head Catherine Fife. "Technology is driving the change and we are catching up... preparing students for a world when we don't even know what that world will look like."

The York board, she says, has taken a strong lead with its Literacy@School initiative.

The program started in 2006 when six teachers were asked to explore technology. It grew to 110 teachers working with digital tools in 87 schools with a goal to have at least one tech-savvy teacher in each school in three years.

"These are the pens and pencils of our future," says program administrator Todd Wright.

"These are their tools and students are using them now. The key is to use them in ways that are both engaging and meaningful."

He believes digital technology is changing how children learn and, if done right, can teach them what they need to learn, too — moving from the outmoded three Rs to the 21st-century's four Cs: communication, collaboration, connecting and critical thinking.

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