



EXECUTIVE DIRECTOR COMMENTARY

Do We Need to Catch Up to . . . Estonia?

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If you want to know what our future may look like, Estonia, of all places, may be the place to examine.

While we think about the future of our children, believe it or not, it sure is helpful to look at this small nation, of just 1.3 million. It is about the size of the Bronx, sandwiched between Latvia, another tiny nation, and Russia.

Why would anyone expect this nation, which was long under the dominance of the Soviet Union, to be the place to look for anyone's future?

Well, according to an article titled, *Is Estonia a Preview of Our Tech Future?* in the April 27th Fortune Magazine, this country did what few other countries could do – totally reinvent itself after the dominance of the USSR ended in 1991. Prior to that, Estonians would wait 10 years to get a landline phone. Because it was shut off from so much of the world, “the country had to reboot from zero.”

Because of this, the nation, still concerned about Russian domination, has pushed itself into the digital world.

What happened in Estonia, according to Fortune, was that once it gained independence, the country rid itself of its old analog systems and went digital—in a huge way.

In 2000, the nation decided that Internet access is a basic human right. At the same time, it “passed a law giving digital signatures equal weight to handwritten ones... That single move created an entirely paperless system. Since no one was required to sign with a pen, there was no need for paper documents to pay taxes, open a bank account, obtain a mortgage, pick up a prescription, or perform most of life's other tasks...”

At birth, every citizen in Estonia receives a “unique

string of 11 digits, a digital identifier that from then on is key to operating every aspect of that person's life – the 21st Century version of a Social Security number.” Children learn computing at school, many starting in kindergarten.

The nation relies on a “blockchain”, “essentially a distributed database” that is more secure than large databases. Estonians can file their taxes online “within minutes.”

Elections are held online, from citizens' home computers. All medical records are online and one gets a card and can even go to Finland for medical care. Estonians developed Skype and are working on food-delivery robots, and an “online trading platform for early, non-IPO start-ups”.

However, Estonia has suffered an online attack and many believe Russia was behind it. So, they opened a cyberdefense center and a “data embassy” in Luxembourg – a storage building to house an entire backup of Estonia's data that will enjoy the same sovereign rights as a regular embassy but be able to reboot the country remotely in case of another attack.”

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So, think of the positives from a system that would eliminate paper and pen. We could get away from tasks like filling out medical forms every time we go to a doctor. The card would hold everything we need.

A Great Future?

While I am fascinated by what the Estonians have been able to do and I think computer education in the early years is great, is this the best direction for us and our children? Certainly, the idea of more cybersecurity is very positive, but how could we even consolidate our information into our diverse, often corporation-driven society?

I was writing this story on May 15th when the New York Times published a story entitled, *How Google Took Over the Classroom*. The story discusses how Google almost inadvertently took over the use of computer equipment in our schools by showing teachers and administrators Google's many educational apps. Those teachers became cheerleaders for the use of Google products.

Chromebooks, the low-cost laptops that are now ubiquitous in many schools where Microsoft hardware and Apple products used to dominate. "But by habituating students to its offerings at a young age, Google obtains something much more valuable" – not only does it hook future customers at an early age, it obtains huge amounts of data as students use the tools.

How the data is used is, of course, one of the most important issues in the educational community today. While Google says, according to the article, its "core education services (including Gmail, Calendar and Docs) is only used to provide the services themselves,

so students can do things like communicate using email," parents and others are concerned that the information can be used for advertising and other purposes.

As we are wrestling with privacy and other considerations brought about by ESSA, it has become harder and harder for any of us to get away from technology.

Where should we go from here? Is the Estonian system a model that we should emulate? Will we truly end up being paper-free as we've been promised for so many years now?

If that is the road we decide to travel, how will we get there? Will Google, "a unit of the \$652 billion Alphabet", be the driver of that future?

Are we surrendering our future and that of our children to Big Business?

The Times article states this about the effects of Google's (or other technologies' effect):

"Google is helping to drive a philosophical change in public education – prioritizing training children in skills like teamwork and problem-solving while de-emphasizing the teaching of traditional academic knowledge, like math formulas. It puts Google, and the tech economy, at the center of one of the great debates that has raged in American education for more than a century: whether the purpose of public schools is to turn out knowledgeable citizens or skilled workers."

It is up to the education community, especially school boards and superintendents, to decide whether technology is the driver of public education or a tool to be used to enhance education.

Whatever is decided, the ramifications will be with us long into the future.