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Chair

Mr. David Sweet

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• (1530)

[English]

The Chair (Mr. David Sweet (Ancaster—Dundas—Flamborough—Westdale, CPC)): Good afternoon, ladies and gentlemen. *Bonjour à tous.* Welcome to the seventh meeting of the Standing Committee on Industry, Science and Technology.

We are advancing on our study of the e-commerce market in Canada. We have some esteemed guests with us. I'll take some time to introduce them.

Our first two witnesses, appearing as individuals, are Michael Geist, a Canada research chair in Internet and e-commerce law, University of Ottawa; and Jacques St-Amant, a lecturer in the department of legal sciences at the Université du Québec à Montréal.

From Canadian Manufacturers and Exporters we have Mathew Wilson, vice-president, national policy; and Martin Lavoie, director of manufacturing competitiveness and innovation policy.

I'll just advise members that an organization may have two representatives but they will be giving just one opening statement.

From Ryerson University we have Wendy Cukier, vice-president of research and innovation.

Finally, from the Ottawa Centre for Regional Innovation, we have Blair Patacairk, senior director of investment; and Samer Forzley, managing director of Market Drum.

I hope I got all your names correct. We'll start, as usual, with opening comments. You will have six minutes for your opening comments. Then we'll go to a rotation of questions from the members here.

We'll begin with Mr. Geist, for six minutes.

Dr. Michael Geist (Canada Research Chair, Internet and E-commerce Law, University of Ottawa, As an Individual): Thanks very much.

Good afternoon.

As you heard, my name is Michael Geist. I'm a law professor at the University of Ottawa, where I hold the Canada research chair in Internet and e-commerce law. I appear before the committee today in my personal capacity, representing only my own views.

I want to congratulate the committee for launching the study of e-commerce in Canada. It's a critically important issue, deserving of greater attention.

While the committee has identified some excellent questions, I would boil the issue down to a single one: why have Canadian consumers embraced e-commerce but Canada has failed to produce many significant global e-commerce success stories?

The Canadian consumer success story is well known. We're among the global leaders in Internet use and online video consumption. For several years, Canada was the world's largest per capita user of Facebook. Netflix launched online only, first in Canada, and quickly grew to one million subscribers. And digital music sales have grown faster in Canada than in the United States for each of the past five consecutive years.

Yet despite the growth on the consumption side, we punch well below our weight in creating global online companies, an issue recognized by a McKinsey study prepared for the G-8 meeting in France earlier this year. There are exceptions, of course—Club Penguin, Flickr, AbeBooks, and StumbleUpon, among them—but most are bought out by larger U.S. companies before they have the chance to grow into global players.

Canada does have its share of e-commerce SMEs, but the multinationals that employ thousands and generate billions in revenue have largely eluded us. The question is why. There are no doubt many factors—venture capital, market size, appetite for risk—but as they say, when you're a hammer, everything looks like a nail. When you're a law professor, you see legal and policy failures.

Over a decade ago, Canada established the e-commerce law basics, including enforceability of online contracts, privacy rules, and some online consumer protections. But these were just the price of admission. The success stories often lie in countries that went further. I believe companies like YouTube, Google, and Facebook could have been Canadian, but legal rules made it less likely.

For example, YouTube could have been Canadian. The company would have been called iCraveTV, a Toronto-based online video startup that launched in 1999. It streamed television programming, supported by advertising along the bottom of the screen. It was YouTube years before YouTube was YouTube, and it relied on Canadian law to do it. The U.S. objected, and within months of launch the service was shut down, and Canadian law changed as we caved to the U.S. pressure.

Google could have been Canadian. The company would have been called OpenText. OpenText is, of course, Canada's largest software company, based in Waterloo. Before Google was even a Stanford graduate student project, OpenText was providing the search technologies for companies like Yahoo. U.S. copyright law has a fair use provision that Google later relied upon to index the web and become a multi-billion-dollar company. Canada still has a more restrictive fair-dealing approach, and OpenText opted for managing content in the corporate market, which doesn't raise the same legal issues.

Facebook could have been Canadian. The company would have been called Nexopia, which is now an Edmonton-based social network that is still active. It was founded in 2003, a year before the launch of Facebook, but unlike Facebook and thousands of other U.S. companies, Canada does not have a rule that grants legal immunity to intermediaries for the postings of third parties. In the U.S., the Communications Decency Act, section 230, has been used by all the giants—Facebook, Amazon, Google, and eBay—to limit risk and liability for the postings of their users. In Canada, we don't have the same protections, and the risks faced by anyone operating online are far greater.

I could go on. We could talk about why Skype was unlikely to be Canadian because of the regulatory and competitive environment for telecom companies. We could talk about how Zillow, the online real estate giant, couldn't be Canadian because of restrictive rules over the use of listings data. We could talk about how Amazon couldn't be Canadian because of foreign investment restrictions.

Canada has failed to build the competitive legal and policy e-commerce framework, and we now live with the consequences.

So what comes next? There are numerous policy issues that ought to be put on the table, not all of them a matter for the federal government, as some fall within provincial jurisdiction. I'll quickly highlight four, and perhaps we can discuss more during the question period.

First are the privacy and marketing rules. We should move ahead with the anti-spam rules, not diluted through regulations, as some are calling for. Ensure swift passage of the just introduced privacy measures in Bill C-12. Moreover, the next round of privacy law review is due this year. We need tougher enforcement measures put on the table and retention of the principle of court oversight for mandatory personal information disclosure.

Second is copyright flexibility. Today and tomorrow's e-commerce businesses rely far more on the flexibility of copyright law, not the digital locks that form a cornerstone of the current copyright bill, Bill C-11.

• (1535)

Third, other countries have adopted fair use, and yet more are considering the issue. Canada should do the same. An equivalent of the CDA section 230, which I spoke about earlier, for Internet intermediaries is absolutely crucial. It would, however, require provincial cooperation.

Fourth, and finally, is removal of foreign investment restrictions and other competitive barriers in many sectors that touch on e-

commerce. Foster a more competitive Internet environment with a set-aside for new entrants in the forthcoming spectrum auction.

Note that Canada may have been the first with an online-only Netflix, but we also hold the dubious distinction of having had Netflix offer bandwidth-reduced versions of its content due to Internet data caps and high costs. The impact extends well beyond the consumer market, as it directly affects e-commerce businesses as well. Canada may have missed out on a generation of e-commerce leaders. We must not miss out on the next one.

The Chair: Thank you, Mr. Geist.

[*Translation*]

Mr. St-Amant, you have six minutes.

Mr. Jacques St-Amant (Lecturer , Department of Legal Sciences, Université du Québec à Montréal, As an Individual): Please allow me to add a few thoughts to what Professor Geist said.

Imagine for a moment that mobile payments are in greater use in Canada than they currently are, that you were traveling abroad on business week ago and that, therefore, in order to pay your hotel bill and settle insurance premium and at home, you had been relying exclusively on your BlackBerry. You would have been rather embarrassed.

Mr. Chair, ladies and gentlemen, I thank you for inviting me to exchange views with you today. I teach consumer law at Université du Québec à Montréal and I have been especially interested in payment issues for over 20 years. I am currently a member of the Canadian Payments Association's Stakeholder Advisory Council and I've been retained since last April as an advisor on consumer issues by the Task Force for the Payments System Review set up by the Minister of Finance in summer 2010. However, I appear before you today on a strictly personal basis.

The questions you raise are numerous and complex. I will consider them primarily from the user's perspective, and especially that of consumers, but also to some extent to the challenges faced for instance by small businesses.

If I focus today on payment issues, it is because payments are vital to almost all electronic commerce activities and tend to be taken for granted, which is a grievous mistake.

On the web, cash is not king. We must rely on electronic payment mechanisms that are both increasingly diverse and offered by a growing range of providers. This evolution is desirable and may be beneficial, but it also generates new risks, which must be understood and mastered.

There is operational risk: payments can be lost, personal information can be stolen, networks can fail—and I owe an apology to Research in Motion: the last decade's experience with our banks, for instance, has shown that all networks are vulnerable.

There is financial risk: providers may go bankrupt or summarily close their doors while millions, perhaps billions of dollars sent to consumers or businesses might be at stake.

Contemplate for instance a sudden collapse of PayPal, which is unlikely to be sure, but which illustrates the consequences that the failure of smaller and more fragile providers might entail.

These issues also raise legal risk—I also teach law—as well as reputational risk for the whole payments industry. Yet there is practically no effective process or mechanism to manage these risks in Canada.

From a legislative standpoint, the United States have been relying since 1978 on the Electronic Fund Transfer Act, which has been complemented by other legislation. Over the past decade, the European Union has implemented a regulatory framework that is adapted to the new realities. Australia has been fine-tuning its e-payments regulatory framework for 15 years or more. But Canada has lagged behind and has not done enough.

As a result, our regulatory framework has the consistency of lace and it is incoherent, incomprehensible and largely unknown. As a result, providers such as financial institutions, which are best placed to prevent and manage the risks associated with the payment mechanisms they offer, strive mightily to transfer risk and cost to users, be they consumers or merchants, through standard form contracts, which is as unfair as it is economically inefficient.

As a result, in addition, some providers such as financial institutions must at least comply with prudential and solvency regulation, while others do not, which creates discrepancies in the market as well as it generates risk. Something must be done.

Mobile payments are currently on everybody's lips, in Canada and abroad. It may well be that, indeed, they are the future of payments and smartphones will replace our plastic cards. It may also be, however, that other electronic payment mechanisms will win the race, or will at least play significant second parts. The issue is therefore not merely mobile payments: it is rather the whole electronic payments ecosystem which requires an overhaul.

But why should we regulate at all? For the same reason we have implemented traffic lights and lines on the pavement: there must be clear rules of the road which everybody complies with to reduce risk, sustain trust and facilitate involvement and participation.

At least two broad principles should therefore underlie a new Canadian framework for electronic payments: trust and accessibility. Without mutual trust, of course, no payment is possible.

• (1540)

We need to ensure safety and soundness from a financial standpoint, as well as reliability. Rules that allocate risk, advantages, costs and liabilities must be clear, coherent and fair, which they currently are not. All stakeholders must be able to become involved in the evolution of the regulatory framework and their needs and concerns must be addressed, which is currently not the case.

However trustworthy our payment mechanisms may be, they must also be accessible. Affordability is a crucial issue, especially with regard to mobile payments, if only because our mobile phone services are among the most expensive in the world.

Territorial accessibility is also an issue outside the more populated urban areas. And let us not forget that almost half our adult population is functionally illiterate: complex interfaces can quickly become a challenge. Add to that issues, such as the inclusion of persons with a disability.

These are only some of the issues pertaining to mobile payments, and electronic payments in general, and I have barely touched on them. For example, I have not even mentioned virtual money, such as Facebook credits.

Of course, I will be happy to discuss all of this and more with you.

The Chair: Thank you very much, Mr. St-Amant.

[English]

Now on to the Canadian Manufacturers and Exporters.

Mr. Wilson, go ahead, for six minutes.

Mr. Mathew Wilson (Vice-President, National Policy, Canadian Manufacturers and Exporters): Thank you, Mr. Chair and members of the committee.

Thank you very much for inviting us here to discuss the state of e-commerce in Canada today and how it's being utilized by our members.

CME represents about 10,000 members from across Canada. We chair the 47 member associations of the Canadian Manufacturing Coalition. About 85% of our membership are SMEs that use this type of technology on a daily basis.

Our views are probably slightly different from the first two guests', where our focus is much more heavily concentrated on the business use of technology and the B2B electronic commerce marketplace.

While the majority of the attention generally is focused on the consumer end of the transaction—because that's what impacts our daily lives—about 80% to 90% of all e-commerce transactions are actually conducted between businesses. There are several prominent examples you always hear about: Walmart's infamous inventory control system and its supply chain; automotive industry giants like GM, Ford, and Chrysler have a \$500 billion marketplace with their suppliers; large food and beverage companies such as Procter & Gamble, Coca-Cola, Nestlé, and Unilever have about a \$200 billion marketplace for the purchase of goods and services for their suppliers. Other organizations like B2B steel and other companies like FedEx and other major B2B service providers are areas where companies provide services and offer services on a day-to-day basis.

But e-commerce has also dramatically changed the way products are brought into the market. Today companies are able to develop, design, test, market, and sell all manner of consumer products using e-commerce tools and tie various global supply chains together virtually. For example, cars and trucks—which a decade ago took five to seven years to bring to market—are now being brought to the showroom floor in two to three years. Corporate R and D, while still centrally controlled, is now conducted throughout various portals globally. The process, including tying suppliers and sub-assembly contractors, and R and D and design with product testing, can be completed almost entirely virtually and 24/7 with offices around the globe.

Where products once were introduced globally one or two markets at a time, products can now be manufactured in multiple locations globally for sale in almost every market simultaneously.

While this change in product development has had noticeable impact on consumers, it has also fundamentally altered business relationships and the way successful companies can operate globally. From a policy-making standpoint, there are also a number of critical electronic commerce tools that are essential for Canadian businesses. Some of them are in addition to what has already been noted.

There are four, in particular, I'd like to talk about, primarily about infrastructure and business investment.

First, on infrastructure, open access policies are critical to Canada's digital competitiveness. A report from Harvard's Berkman Center for Internet & Society earlier this year ranked Canada poorly in terms of Internet prices and speeds. This has a significant direct negative impact on businesses' ability to employ e-commerce technologies and strategies in Canada.

In 2009, the CRTC ordered phone companies to make their new and expensive fibre Internet infrastructure available to smaller firms that could not afford to build their own networks. It is essential that the government implement open access rules that will force Internet network owners to share their infrastructure with smaller competitors.

Second is implementing incentives for businesses to invest in ICT technologies. ICT technologies account for approximately one-third of total investments in machinery and equipment made by Canadian businesses. But ICT is also embodied in other products and process technologies deployed across business. Despite this, Canadian companies have lagged behind U.S. business in investing in

machinery and equipment since about 1992. And about 20% of the Canada-U.S. ICT investment gap is due to differences in industrial structure between the two countries. There is a higher share of output in ICT-intensive industries in the U.S. and a higher proportion of small firms in Canada, which tend to invest less in ICT.

Weaker investments in ICT is the reason explaining Canada's poor productivity levels compared to other countries. Canada should introduce a specific business ICT investment tax credit as a result.

We want to keep investment in parallel infrastructures aimed at providing academics and businesses with the ability to share mega database and prototyping services. CANARIE, Canada's Advanced Research and Innovation Network, which provides more than 19,000 kilometres of ultra high-speed fibre optic cables, is a crucial enabler of Canadian innovation.

Globalization has not only revolutionized the way businesses make products and deliver them but also radically changes the way they access worldwide resources to foster innovation. Research is becoming increasingly data intensive, which requires fast and reliable networks, allowing businesses, academics, labs, and other innovation stakeholders to work together.

● (1545)

CME was pleased to hear that CANARIE's mandate had been renewed for another five years; however, we'd like to see that lengthened into another five-year term as well.

Finally, on helping businesses invest in high-performance computing systems, as research is becoming increasingly data intensive, it not only requires dedicated infrastructure, but also high-performance computers to handle and process mega databases. HPCs, or supercomputers, are relatively unknown in many business sectors today in Canada, but their potential to increase productivity is enormous.

Some R and D intensive manufacturing industries, like aerospace and automotive, already use HPCs extensively to conduct complex simulations and share them with their business and research partners. The U.S. Department of Defense and some states are already developing strategies to become world leaders in the use of HPCs in the manufacturing sector. We believe that Canada has to start paying attention to the huge benefit the supercomputers can provide in all manufacturing sectors.

I'm pleased to inform you today that CME, in partnership with Canadian Advanced Technology Alliance and other stakeholders, is currently building a survey to map out the use of HPCs in Canadian manufacturing sectors.

With that, I'll conclude, Mr. Chair, and look forward to the conversation.

Thank you.

• (1550)

The Chair: Thank you very much, Mr. Wilson.

Now we'll go to Ms. Cukier for six minutes.

Prof. Wendy Cukier (Vice-President of Research and Innovation, Ryerson University): Thank you very much. I'm very pleased to be here today.

Rather than reinforce some of the comments that have been made by the other panellists, I'd like to speak on behalf of Ryerson with respect to our view on innovation processes, on the role of universities in research and development as well as in developing digital skills. I will follow up with a brief; I'm afraid I wasn't able to have it ready for today's presentation.

When we think about innovation in Canada as a process, or entrepreneurship, there are essentially three levels. We've heard a lot about the importance of creating an environment that enables innovation and enables entrepreneurship. There are two other pieces that are equally important; that is, having entrepreneurial processes and understanding the processes of technology adoption, as well as having individuals with the appropriate entrepreneurial mindset. I think the universities play a particular role in those two levels, and that's what I'll focus on.

When we look at the adoption of e-commerce in Canada, I think it's important to differentiate between access to the Internet and the use of e-commerce. The data I've recently reviewed with my colleagues suggests that in fact the Canadian adoption of consumer-based e-commerce is far beneath what we see in the United States. Whereas about 8% of retail expenditures in the U.S. are e-commerce-based, in Canada it's only about 1%. There are numbers of reasons for that, but I think it's important that we actually consider where we are from a global perspective.

One of the reasons for that.... That's simply the consumer side, but if we look at the business side and B2B, which has already been mentioned, we see a tremendous variance between sectors and also within sectors. So when people comment on low rates of productivity and low rates of technology adoption, I think it's very important to understand that often the data reflects averages. Very often, what you have in a sector—for example, retail—is a very high investment with very high payoff and perhaps a low investment with

no payoff, or a high investment with no payoff. It's critically important to disaggregate the data so that you have a really good picture of where the success stories are and where the failures are. I don't think we do that enough.

The other thing that I think is critically important to understand—and we did fairly extensive research with ITAC and CATA on this dimension—is that many of the barriers to adoption in the SME sector are not, strictly speaking, technology barriers. There is a lot of focus on technology, and clearly it's important. Clearly, infrastructure is important. But we also see that very often the skills needed to assess the links between technology and corporate objectives are simply missing. The business case for technology adoption is often missing. Many of the vendors exacerbate this problem by pushing the technology rather than looking carefully at market demand.

I won't talk about that in great detail, but there is very good evidence to suggest that if you want to accelerate the adoption of e-commerce, you have to ensure that the business case is well understood, because particularly for the S's among the SMEs, if they don't see an impact on the bottom line, they're not going to invest in the technology and they're certainly not going to invest in the people who are required to make the technology work.

When it comes to post-secondary institutions, then, there are really four levels at which they can contribute. One is in terms of digital skills, and I want to say a couple of words about that. The second is in terms of research. There, we're talking about the discovery-based kind of research that has helped Canada build its infrastructure, and also about market-driven research, which helps develop products and services as well as new processes. Universities play an important role in terms of innovation and commercialization processes, and they can also play a much more important role than they currently do as model users.

• (1555)

Just as government ought to be a model user when it comes to e-commerce—and Service Canada is a good example of how government has done that—universities are often lagging behind with respect to the adoption of technology.

When it comes to digital skills we hear a lot about STEM: science, technology, engineering, and mathematics. There is no question that STEM education is fundamental to creating a digital economy, but it's not sufficient. We would argue that an equal emphasis on things like entrepreneurship and management is important if we're actually going to get the promised benefits out of the technology as well as basic digital literacy. We need to ensure not only access to the tools, but also effective use of them.

At the high level, it isn't simply engineering and computer scientists that we need; we also need content creation. If you look at what will accelerate certain segments of the e-commerce market, it has more to do with content creation, effective narratives, and understanding consumers than it does with bits and bytes.

The focus of Ryerson's digital media research and work in e-commerce is very much driven by partnerships with industry. There are a number of federal government programs that are particularly valuable in promoting market-driven research.

We have a number of recommendations. To begin with, understanding the nature of innovation is critical. Second, we need to understand that digital skills are part of the human infrastructure, if we are to make use of e-commerce effectively. Third, we must unleash the talent of young people, something that we don't do enough of. Fourth, we should be making sure we have collaborative models to support research that brings industry together with the universities. Finally, we must ensure that we understand not just conventional academic measures for judging research, but also measures that reflect value for money and impact. There's a lot more that can be done in these areas.

Thank you.

The Chair: Thank you, Madam Cukier.

If that's going to be in the outline that you're going to send, then send it to the clerk. He'll translate it, and everybody will have your recommendations for the record. And that goes for anybody else on the panel who would like to submit documents afterwards.

Now we have Mr. Patacairk.

Mr. Blair Patacairk (Senior Director, Investment, Ottawa Centre for Regional Innovation): Thank you for the opportunity to present today.

[Translation]

Thank you very much for asking us to be here today.

[English]

The Ottawa Centre for Regional Innovation was established 26 years ago to facilitate commercialization between federal labs, universities, and our emerging technology industry. We've grown since then—we're now at approximately 700 members, representing 120,000 employees in the Ottawa region.

The Ottawa region has made a commitment to cluster-based economic development as a means to ensure that its economy remains sustainable, innovative, and diversified. OCRI works closely with all levels of government, our exporting communities, our colleges and universities, and our local support infrastructure to make the region a model for success in the knowledge-based economy.

Today my good friend Samer Forzley is here to talk a little bit about the industry. Far be it from me to talk about the industry when I have an industry expert with me. Samer is a former executive at eBillme, a company that has just been sold. Market Drum is a consulting company that he works for right now, and he's going to give a little bit of insight into that.

Before I go on, I'd like to say that Canadians have spent about \$6.5 billion on online billing since 2010 and are expected to shell out about \$30.9 billion in 2015. Half of all Canadians made a purchase online last year, according to Forrester Research. The average value of order for Canadian consumers is higher than that of U.S. consumers, but this is probably offset by the lack of online competitors in Canada, in comparison with the U.S. Large multinational brands and specialty retailers make up the majority of online retailers in Canada. But again, far be it from me to tell you what we need to do in our city, in our country, to improve on this.

I'd like to turn it over to Samer, so that he can tell you a little bit more.

• (1600)

Mr. Samer Forzley (Managing Director, Market Drum, Ottawa Centre for Regional Innovation): Thank you very much.

For a transaction to happen online, three needs have to be met: the need of the consumer, that of the merchant, and that of the bank.

Consumers need to go online and find something. Once they find it, they need to find it at a good price. Then they need to pay for it in a way that's safe and secure. Once they pay for it, it needs to be shipped to them in a timely manner.

What happens in Canada when consumers shop online is that they don't find products. It's very difficult to find a good selection of whatever it is you're looking for—DVDs, TVs, you name it. Specialty stuff, of course, is easy to find.

But suppose they find the TV they're looking for. The price is not good. We're going to talk about that when we come to the merchant side of the business, but the prices in Canada are not competitive at all. This actually restricts the merchants from marketing because they don't have much of a margin to work with.

Assuming the consumer is willing to put up with the price anyway and buy the TV, the availability of payment options at the checkout is minimal. In Canada, 89% of the payments happen by credit card. Canadians love Interac, but Interac is not available at all. Actually, debit cards in general are not available, because they're not network branded and available. So I will echo the comments about payment options: they're very restricted, and they're restricted by the banks, so there's an issue that needs to be addressed.

Also, then, shipping costs are a problem. Whether you're shipping to Canada, across to the U.S., or to anywhere in the world, our costs of shipping are extremely high, so consumers tend not to complete the checkout process.

When you look at the main issues on the merchant side, you see that one issue is the cost of actually doing business online, primarily because of payments. A mid-tier merchant like DNA 11, here in town, has to pay a deposit of about \$100,000 for a credit card processor, in holding fees for fraud. Now, know that DNA 11 actually is a DNA company, so it's as safe as it can get online; I mean, you can't get anything safer than somebody processing your DNA. But because of the way the banks select merchants, or pick them, the costs have to be incurred.

So it's very hard for small or medium-sized merchants to actually set up in Canada, and once they do, their cost for a credit card transaction is about 3.5%, which is high. Let's compare that to the U.S. As a mid-tier merchant in the U.S., I actually don't have to chase the credit card processor. What I do is go to one of the many sites and submit my volume online. They bid on my process, the way you get a mortgage here, and I get a rate. For DNA 11, I'm giving you actual data: it's 3.5% in Canada and 1.9% in the U.S. It's the same business, with the same customers. It's almost unfair. So because the price is so high just for payment transactions, they can't be competitive. Imagine this in the electronics world: that cost cannot be borne because the margins are so low.

Next is the issue of shipping. In Canada shipping is expensive because of the distance, of course, but even for shipping across the border... When I grow as a merchant, I have to ship across the world. My customers could be mainly in the U.S., and when you ship, your costs are not only for shipping.

Some of the credit card companies levy a foreign trade fee on top of those costs—about 6%—just for the luxury of shipping to the U.S. What many Canadian merchants actually do is rent a truck, put the equipment or product on it, and send it to Ogdensburg, where somebody actually processes it and ships it to the U.S. Eventually, when you grow big enough, you move. DNA 11 just rented a big facility in Vegas. As well, Cymax, out of Vancouver, moved to the U.S., as did Coastal Contacts out of Vancouver, and so on.

Once you move to the U.S., the problem is that you cannot process anymore in Canada, because your main focus is the U.S., and that's where your market is. Your selection ends up being less... it's a vicious cycle for Canadian merchants, especially the small and medium-sized ones.

I'm running out of time. If you have any questions, I'll take them, but the equation is not balanced, and it's fairly heavy towards the banks in Canada.

Thank you.

The Chair: Thank you very much, Mr. Forzley.

There were some good opening remarks. I'm certain there are plenty of questions.

We'll move to Mr. Lake for seven minutes.

Mr. Mike Lake (Edmonton—Mill Woods—Beaumont, CPC): Thanks, Mr. Chair.

Thanks to the witnesses.

I was going to start somewhere else, but I'm going to continue with Samer. When we're talking about the consumer side of things, it sounds pretty much as though most of those problems are business problems, problems that good businesses have to resolve, and for the most part on their own.

On the merchant side, though, it sounds like we're dealing with issues that are not necessarily all electronically related. Some of them are just trade related, I guess, in a sense. Maybe you could elaborate on that a little.

Mr. Samer Forzley: Sure. On the consumer side, there are some situations that I'm not sure how consumers could address, even if

they chose to, especially on the payment side. When you are security conscious or privacy conscious and you go online and the only choice is a credit card where you have to give up that info, it's an issue for many consumers. Actually, just to let you know how big a loss this represents in the U.S., in 2009 it was a \$20 billion loss because people were not comfortable checking out when the only available payment method was by credit card.

That's almost equal to all the e-commerce in Canada. So it's a serious problem, and in Canada it's worse because there are only credit cards, in general, and banks are not allowing other payment options to be used. It's that simple. For example, we are a Canadian company, six years plus in operation, and we don't have a single merchant or customer in Canada. It's all U.S.-based. We can't get on the network.

So it's structural, and for consumers, when they go to check out, I'm not sure how they would resolve these issues.

On the business side, again, the core issue—there are two issues here. There's the cost of doing business in Canada. It's very expensive, both on the payment side and on the shipping side. The shipping side could be resolved. Canada Post is making an effort. They have set up a subsidiary that actually does channel some sales back and forth between the U.S. and Canada, but on the payment side there's not much happening.

• (1605)

Mr. Mike Lake: Right. My notes from your comments on the consumer side say that products were hard to find. I find that too when I'm shopping for something. Usually it's a problem with a company having a terrible website and you can't find what you want. Price not good—well, that sounds again like a business problem.

Mr. Samer Forzley: But it's also structural...sorry to interrupt. In the U.S., for example, if I'm a small merchant or a medium merchant, I don't have to hold all these products for inventory. I can go through a drop shipper or join a marketplace, at which point my catalogue will get filled up. In Canada, it's not available, simply because there are not that many merchants joining the network, to start with, to add their products. So in many cases in the U.S., you will see two merchants who may be competitive but who actually collaborate. You buy from one merchant but the competitive merchant ships on their behalf, simply because that's how the network grows, as a matter of fact. That does not exist in Canada.

Mr. Mike Lake: I want to move on, if I could, to Ms. Cukier.

You talked about disaggregating to find out where the successes and failures are, which led me to think about the question, where are the successes and failures?

Where are the successes when you talk about that, when we're looking at e-commerce? What is a model of success out there for you? What is a model of failure? What does that look like?

Prof. Wendy Cukier: At this stage, we don't have a lot of disaggregated data. There was a project proposed with ITech, the Retail Council of Canada, and REALpac—a commercial real estate association that handles lots of the big shopping malls—to actually try to unpack that answer.

One of the things that people have pointed to recently is Groupon, as an example of a Canadian success story. Canada has been quite successful in developing some very specific apps to support e-commerce that are based on context-sensitive computing and so on, but the economies of scale, quite honestly, for many of the big consumer-oriented businesses, simply are lacking in Canada, and that is a big challenge.

Mr. Mike Lake: I may follow up on that a little bit later.

Mr. Geist, in your comments you hit a section where you said you could go on, and then you touched on a few things about regulatory and competitive environments. You talked about the online real estate giant, which couldn't be Canadian because of restrictive rules over the listings data, and Amazon couldn't be Canadian because of foreign investment restrictions.

Go on.

Dr. Michael Geist: All right. Those provided three more examples. There are in the United States a number of companies that have emerged based on open government data. So they've used government data that might be made available in open format, they've added their own value-add, and have become viable commercial companies.

Mr. Mike Lake: But specifically in those three that you talk about

Dr. Michael Geist: Oh, sorry, for those three.

Mr. Mike Lake: You talk about Amazon, for example. It couldn't be Canadian because of foreign investment restrictions. Why?

Dr. Michael Geist: You may recall what happened when Amazon tried to enter the Canadian marketplace. It functions as amazon.ca, and it's largely run through the post office. Owing to restrictions on the requirement for booksellers to be Canadian owned, it couldn't function in this country the way it functions in other jurisdictions. We have restrictions on ownership, so unless Jeff Bezos happened to be a Canadian, there would be a problem. But he's not.

With something like Skype, there are ongoing issues on the telecom side with respect to VoIP. Even accessing phone numbers has been challenging. It's one of the reasons you don't see the same number of Internet telephony services in Canada that you see in some other jurisdictions.

As to the listings data, that's actually an issue that the commissioner for competition has been quite active on. MLS has been aggressive in retaining these data, so that it's difficult for other services to make use of listings data. In the United States, there is a true Web 2.0 Ecosystem for real estate data, where they build Google-like maps, street views, and a range of other data, so that you can layer it all into a much richer experience than Canadians are able to obtain.

•(1610)

Mr. Mike Lake: Do you have any recommendations or thoughts on the foreign investment issue?

Dr. Michael Geist: On the cultural issue, with something like books, I understand the arguments for retaining some of those rules on publishers and stuff, although I think you could have a good debate on this topic. But the notion that the nationality of the owner matters with respect to the bookseller strikes me as positively absurd. It makes no sense to suggest that the country of origin of a bookseller is going to make a significant difference in the number of books sold in Canada. Canadian authors are readily available, and booksellers will sell the books that people want. I don't think it matters much where their shareholders are located.

On the telecom side, this is hotly debated. I find myself, especially as we move towards a new spectrum auction, of the view that we need to tear down the barriers.

Capital is difficult to obtain for some of the Canadian-owned new entrants. If we want to have the robust competition and the sorts of things that we've heard from the manufacturers arguing for open access, we need to open the doors to some of the international giants. They can provide a more robust and competitive environment.

The Chair: Thanks, Mr. Geist.

Now to Mr. Julian.

[*Translation*]

Mr. Peter Julian (Burnaby—New Westminster, NDP): Thank you very much, Mr. Chair.

Thank you also to our witnesses. I would like to start with Mr. St-Amant.

You spoke about the legislative framework that exists in other countries, including the United States, the European Union and Australia. But you didn't give any details. What legislative aspects characterize the measures adopted by those three jurisdictions that are different from what we currently have in Canada?

Mr. Jacques St-Amant: I'll answer briefly because it is a broad subject.

Australia, for example, quite recently adopted a coherent code on electronic payments for retail sales. Actually, an update was made to a code that already existed. It's a code that establishes the rights and obligations of consumers, including users who make electronic payments, for example.

Mr. Peter Julian: In other words, it's to protect consumers.

Mr. Jacques St-Amant: Yes. We have nothing comparable in Canada. For years now, Australia has been considering the matter. For example, there was a consultation this summer on innovation in the payment sector and how to encourage the concerted work of the various stakeholders. It is quite fascinating to see the depth of the research and breadth of thought in the study papers and discussion papers produced in Australia. Unfortunately, we're not there yet in Canada.

In the European Union, two directives have been put forward in recent years: one on electronic payments in general, and another on the suppliers of electronic money. So, prudential monitoring was established, adapted to both large suppliers, such as banks, and to smaller competitors that do not pose the same risks to the system, but that still require concerted and organized supervision.

In Australia, as in the United States and Europe, they have looked into issues related to interchange fees and payments costs for credit cards imposed on merchants. These costs are actually much higher in Canada than in Australia, but we know that credit card issuers in Australia are doing fairly well financially.

These are very complicated issues. But there are also general measures in place. Even though these measures cannot all be applied to Canada, they can at least inspire some serious thought. The conclusions of the Task Force for the Payments System Review should be available by the end of the year and will probably be interesting. I personally think it is essential to establish a regulatory framework that will give everybody an opportunity, that will allow increased competition and that will sufficiently protect the interests of everyone involved, which is not currently the case.

• (1615)

Mr. Peter Julian: I have one last question on this subject. I think Australia puts a limit on the percentage of administration fees that can be charged to small retailers and to large businesses that use the

Mr. Jacques St-Amant: Roughly, this percentage varies around 0.5%. It corresponds to about one third or one quarter of what is imposed in Canada. There are variations in some areas of activity, and taxes need to be taken into account, and so on. But as for size, there is a huge gap.

Mr. Peter Julian: Thank you.

Mr. Jacques St-Amant: And it has been that way for almost 10 years.

Mr. Peter Julian: Thank you.

[English]

I'd like to come to another question. This is something that the parliamentary secretary—I'm sorry he's not here at the moment—and I have had a friendly debate on, and that is Canada's direct government funding of R and D. I just want to quote from a report from science and tech last year. This is a government report:

Canada's direct government funding of business enterprise expenditure on research and development was the lowest of all Organisation for Economic Co-operation and Development countries

Now this is something that is well known. It comes from a government report. It should be well known to the government.

I'm wondering whether our witnesses see that as having an impact on the development of e-commerce here in Canada—the fact that Canada is last among OECD countries in research and development.

I'd like to start with the Canadian Manufacturers and Exporters, because you raised R and D as an important component.

Mr. Martin Lavoie (Director, Manufacturing Competitiveness and Innovation Policy, Canadian Manufacturers and Exporters): Even if you look at indirect funding, which Canada is supposedly very good at, investment in ICT is not necessarily included in the SR and ED, for example. What is included in terms of a tax credit for acquisition of ICT is the capital cost allowance. So you may get an accelerated capital cost allowance depreciation on some of the ICT equipment you buy as a business.

You were referring to skills development. Quebec and Ontario, for example, have some tax credits for that, but there isn't one at the federal level. That's something you may want to explore as well.

Mr. Peter Julian: Mr. Geist, do you have any comments on that?

Dr. Michael Geist: Not really, but my understanding is that a new report just came out today on that issue.

Mr. Peter Julian: Yes, it raises other concerns.

Mr. Forzley, you raised administrative costs for businesses as a major problem. We've just seen from Monsieur St-Amant's testimony that in other jurisdictions there's a cap on charges that can go to businesses. Is that something Canada should be looking at? If we don't have a framework for e-commerce now and we are behind other countries in putting together that legislative and administrative framework, do you feel it is important to address that issue of administrative costs for small and medium businesses?

Mr. Samer Forzley: There are two sides to this. The first part is the lack of access by other providers. In the U.S., if you are an alternative payment provider you can provide fees to a merchant as low as 1%—I know that's what we charged—compared to 2%, or compared to Canada at 3.5% or 4%. So there are many competitors. In the alternative payments space alone, I can easily list 20 competitors, so this is very competitive. That's one part. Access should be opened up to allow more people to compete.

On the second part, in the U.S., with the Durbin Amendment that just recently passed, they are limiting the ability of the banks to charge debit card fees. Debit cards used to be at par with credit cards. Now they are no longer allowed to do that. You go from 2% to whatever, and now you're in the pennies, because there are different risks and issues associated with debit cards.

There is room for both in Canada. Unfortunately, we have limited access and limited regulations, as far as the amount of fees that can be applied.

The Chair: Thank you very much, Mr. Julian.

Now we'll go over to Mr. Carmichael for seven minutes.

Mr. John Carmichael (Don Valley West, CPC): Thank you, Mr. Chair, and thank you to our guests today.

There was an interesting comment in opening the debate.

Mr. Wilson, I made notes on your comments. You talked about the scale of business investment in ICT. You said it was about a third, which is a significant investment for a business in the cost of doing business. You also talked about Canadian businesses lagging behind the U.S. in ICT investment since 1992.

I come from the business world and I know the cost of doing business. I come from small business, and we actually celebrate small business this week and all the great things it does in this country.

I wonder if you could elaborate a bit on the cost side of this, in terms of ICT, and talk about why we are lagging behind the U.S. Is it strictly a scale issue, or is it an opportunity issue?

• (1620)

Mr. Mathew Wilson: It's probably a little bit of both. I would say one of the biggest factors historically, though, has been the length of time it takes to write off the capital equipment you're investing in, ICT or otherwise. Until a few years ago, we didn't have an accelerated system, so it was taking upwards of 13 years to write off investment in new equipment. If you're talking about ICT technology, that's a long time to go before you can write off and then reinvest in technology. In the U.S. they had a much shorter cycle on that, and it allowed them to accelerate. So that probably would have a significant investment.

Maybe Martin could correct me on this. I haven't seen data over the last couple of years since Canada introduced its temporary ACCA writeoffs for a two-year window. I'll be really interested to see whether or not, over the last four years since that has been in place, there has been a shrinking of that window. I think that will be pretty critical once we see some of that data come out.

Mr. John Carmichael: It's that much of an incentive.

Mr. Mathew Wilson: Shrinking that writeoff from thirteen years to two years has boosted the ability of companies to invest a significant amount, and that should mean a closing of that gap. At least I hope it would mean that.

Mr. John Carmichael: Mr. Geist, would you be able to comment further on that?

Dr. Michael Geist: I'm going to take a slightly contrary position. I know e-commerce can have a very broad umbrella, but I think we do the issues a bit of a disservice if we're focused to a large degree on buying equipment as if doing so is going to fuel e-commerce. I frankly don't think that's the case. In fact, if anything, what we're seeing right now in the marketplace is a shift in the other direction, such that small or medium-sized businesses use cloud-based services, whether for software, infrastructure, or any of a range of other things, thereby actually removing the need for many of those SMEs to make some of that big ICT investment.

So rather than focusing on how we get people to buy more boxes, by and large, of stuff that isn't manufactured in this country and from which the profits don't hit here, perhaps we ought to be thinking a bit

more about how we attract large cloud-based services, for which there is a strong movement right now. I think Canada has the opportunity to actually be a global leader when it comes to cloud-based services and establishing large server farms that are more energy efficient. These actually take care of some of the concerns with putting a lot of your personal data in the cloud, because you know it's being protected by some of Canada's privacy rules. There's actually a global opportunity, and countries are beginning to compete as a location or host for these cloud-based services.

So let's not think that getting people to buy boxes is actually going to solve some of the sorts of issues we're hearing about. I don't think it is.

Mr. John Carmichael: That's a great point. I know in my world, with my business background, I've seen a lot of movement to that type of an environment just because of the sheer cost of investing. Small and medium businesses just don't have the ability to jump in at that level.

So it comes back to buying that big technology at more affordable prices and then applying the training and development. In Budget 2011 we announced an \$80 million pilot project aimed at colleges and small business to develop and accelerate the adoption of information and communications technology. I'm wondering if you have any comments.

Do any of the speakers have comments on some of the programs we've already introduced? Are they working? Are they going to work? Are they going to make a difference?

At Ryerson there is the "digital zone", as an example of development. That looks pretty interesting to me, and I think that's where we need to see more investment.

Mr. Geist, why don't you start? You open it, and we'll move it down the table as people have interest.

Dr. Michael Geist: As I mentioned off the top, my focus is largely on the policy side. Certainly some of the things that were in, let's say, the throne speech I think are important. Last time round, anti-spam legislation was passed, which is currently going through the regulations phase. I think it's worth noting that a number of groups were perhaps not paying enough attention back when that bill was being passed, and they're seeking to use the regulation-making phase to undo the kind of structure the government put in place. I think it did a good job on that front.

I think the reintroduction of the privacy legislation is another example of a very positive step forward.

Even with regard to copyright, which I spent a lot of time talking about, I think there are a lot of good things in that bill that will help develop some of the things we're talking about. As I mentioned off the top, though, the digital lock rules aren't among them. In fact it's worth distinguishing between providing flexibility through fair dealing, with such things as a fair use provision, and implementing digital lock rules, for which there is no legal risk at the moment. The fair use provision presents a legal risk for companies in Canada, though not for those in the United States. If you implement digital lock rules, all we're talking about is a potential business risk. I think there's a pretty significant difference between what will be facilitated through creating more flexibility versus moving more towards the lock approach.

• (1625)

Mr. John Carmichael: Thanks.

Ms. Cukier, could you jump in on that one?

Prof. Wendy Cukier: Sure. There are a number of layers to my answer. The first is that the \$80 million was great, and I think it was invested in the right something, which goes to my earlier point that a lot of the impediments, particularly in SMEs, are not actually hardware/software; it's understanding what the opportunity is and how to put the systems in place.

I worked as a technology consultant before some people in this room were born, and very often, as I've said, the issues are not technological; they're understanding what the opportunity is. Our only regret at Ryerson was that it was restricted to the colleges and it didn't include the universities as well.

When we think about—

The Chair: I need to interrupt you. Your time has expired.

I do want to let you know that when you made that comment, everybody was looking around and saying how can anybody be that young?

Now onto Mr. Regan for seven minutes.

Hon. Geoff Regan (Halifax West, Lib.): And I certainly wouldn't qualify, Mr. Chair.

Professor Geist, let me start with you. How would you use the next spectrum auction to foster a more competitive environment?

Dr. Michael Geist: It's a great question. I think in many ways it represents one of the best opportunities we have to change some of the competitive dynamics.

I guess I'd point to at least a couple of issues. First off, I think we need another set-aside, ensuring that either new entrants, or entrants that only have a very small percentage of the market, have a certain amount of that spectrum exclusively for their bidding. The reason is that the incumbents, the large players right now, have an incentive to keep those new players out of the marketplace. They're willing to overbid for the spectrum, not because it makes business sense to pay so much for the spectrum but because it makes business sense to keep some competitors out of the marketplace. A set-aside similar to what we had a couple of years ago makes a huge amount of sense.

Secondly, as alluded to for some of the questions from Mr. Lake, I think along with a set-aside we need to open up the competition to

foreign investors as well. This strikes me as a perfect opportunity to try to do that, so it's a set-aside plus the ability for foreign bidders.

Thirdly, and I think this is important, there is going to be a significant digital dividend that comes out of spectrum previously used for analog television that's now being freed up; we're talking potentially about billions of dollars. The last time we had a spectrum auction, those billions of dollars went to the automotive sector. It was understandable: the sector needed it.

This represents a real opportunity to reinvest what is spent on that spectrum auction into these digital issues: ensuring we've got universal affordable broadband, helping to fund some of the culture and creativity we've talked about, and funding some of the digital literacy and digital skills that people have been talking about.

We all know that things are tight right now. That reinvestment not only provides a large amount of money to be able to do that, but it perhaps makes it more palatable for the companies that are making the bids to begin with; they know that much of what they're spending is in a sense being recycled back into the sector by way of some things that are currently underfunded.

Hon. Geoff Regan: How would you lower transaction fees?

I'm going to go to Professor Geist first and then Mr. Forzley on this one.

Dr. Michael Geist: On the transaction fee side we've got payment experts here, but I think it's quite clear that other jurisdictions are saying it's necessary to step in through regulation. Even on the e-commerce side, in the United States we've heard about the concerns about using credit cards.

In the United States the risk was fairly low with respect to credit cards. They've got Regulation Z, which creates a \$50 cap on potential liability, which meant that credit cards were a viable form of payment to use, from a consumer perspective.

In Canada we don't have a similar regulation; by and large, it's through contract. There have been steps taken in the United States to try to ensure that both fees come down and that consumers are adequately protected. We don't see that to the same extent here.

Hon. Geoff Regan: Mr. Forzley, you talked about the fact that in the U.S. there are more alternative payment providers, one of the reasons being that there are more merchants to support that system.

In view of that problem, how do you lower transaction fees in Canada?

• (1630)

Mr. Samer Forzley: There are many alternative service providers that are happy to transact in Canada, even though there are less merchants. Also, we should know that there are many merchants out of the U.S. or overseas that are looking to enter Canada but don't do so because of the issues of fees and shipping. They find that restrictive.

So it's the ability to have many alternatives competing for the market—not just alternative payments, but more than a few payment processors. For example, on the credit card side, there is Moneris, and it's thin after that, right? Even if we park alternatives for a second, on the credit card side alone there is not enough competition to drop those fees down, so that needs to open up.

On the regulation side, for the debit side there is Regulation E, and for the credit card, as Professor Geist mentioned, there's Regulation Z, and there's Durbin. There are other laws in the U.S. that regulate fraud and risk, etc., so we need that as well.

[Translation]

Hon. Geoff Regan: Professor St-Amant, what regulatory system do you foresee for protecting the payments system?

[English]

Mr. Jacques St-Amant: In terms of facilitating access, I think among the major issues you have is the issue that the infrastructure is so concentrated, and there is so much legal uncertainty that it is probably not very attractive for foreign acquirers, for instance, to come into this market. Those are issues that should be looked at.

In terms of looking at the interchange fee issue, maybe one can always dream that the retailers, the issuers, and the networks could sit down and come to an agreement—maybe. But I strongly suspect that if you want this to happen, you had better have a threat that if they can't agree, someone will agree for them.

Hon. Geoff Regan: Ms. Cukier, how would you unleash the talent of young people in the way you described?

Prof. Wendy Cukier: We did a book a few years ago called *Innovation Nation: Canadian Leadership from Java to Jurassic Park*, which looked at high-tech entrepreneurs. The strongest predictor of whether someone will be a serial entrepreneur is whether they come from a family of entrepreneurs, and that could be a real estate agent, a farmer, or a self-employed physician.

If you understand that, then you recognize that the structure of the Canadian economy is not actually working in our favour, because large employers account for the majority of jobs. So you have to think about what you can do in the educational system to create the kinds of sensibility, the risk-taking, and the aptitudes that are going to drive entrepreneurship. I mean that not just in the context of business, but also in the context of social entrepreneurship, and I actually think we need a strategy that looks at K to 12 as well as the universities and all the way through.

Some people have mentioned the digital media zone at Ryerson; any of you are welcome to come. It is a space that the president created for students. It's led by students and run by students: space, technology, and let them go. Over 18 months they've created 47 start-ups and 240 jobs and basically have turned experiential learning and approaches to innovation on their head. This is a generation that knows more about technology and its potential than we do—I speak for myself, not for everyone in the room.

Some of the programs already established at the provincial and federal levels give young people the opportunities and the experience they need to enhance their employability, but also give them the confidence they need to venture out on their own and create their own jobs. I think this is critically important.

I think there are huge opportunities there that we're not tapping into. Reverse mentoring is one, whereby young people teach older people how to use social media. It's low cost and it creates huge opportunities.

At Ryerson, that's part of what we think is very important.

The Chair: Thank you very much, Madam Cukier.

That's the end of our first round of seven-minute questions. We're going to our second round, beginning with Mr. Braid for five minutes.

• (1635)

Mr. Peter Braid (Kitchener—Waterloo, CPC): Thank you, Mr. Chair.

Thank you to all of the witnesses for being here. We've had a range of really excellent and informative presentations, so thank you.

Professor Geist, perhaps I could start with you. In your opening remarks, you mentioned the importance of creating a more competitive Internet. Could you elaborate a little on what you meant by that, on how we create a more competitive Internet?

Dr. Michael Geist: I was heartened to hear that the manufacturers and consumers in public interest are *ad idem* on this. That speaks to the kind of competition we see for broadband services to the home, wired services, whether fibre or otherwise, as well as on the wireless side. Regardless of the ranking that you see, I think we all recognize that Canada is not a leader at this time. In fact, over the last decade or so, we have steadily declined in the pricing that Canadians pay. There is also the existence of caps, which has made it difficult, let's recognize, not just on the consumer side, but also for businesses that try to embrace the opportunities of e-commerce and find all these hidden fees on the consumer end. So they can't offer consumers the same competitive arrangements available in other countries, because of the existence of caps or high fees. It represents a significant impediment on both sides: businesses are unable to take advantage of the technology and consumers have to pay more.

It's the same situation in wireless, which recently has gotten better. But if you look at the last number of years, virtually every benchmark or metric identifies Canada on the data side as being a laggard in pricing. We've started to see some of the bigger players come in with their LTE or 4G, so we're starting to see higher speeds. But here in Ottawa, for example, where Rogers first launched its LTE, presumably for the benefit of people like you to see that this is actually happening in Canada, the reality is that it's unaffordable for individual consumers. It's largely a corporate offering, because the prices are so high. That's in stark contrast to what you find in many other jurisdictions, where the prospects of moving directly towards a wireless broadband service actually provides the kind of competition you're looking for. You're not just stuck with a choice between cable and DSL. They both look roughly the same, but there's now a third entrant that comes in on the wireless side. One of the ways we can help make that happen in a more competitive fashion is through the upcoming spectrum auction.

Mr. Peter Braid: Professor Geist, you mentioned that because of policies put in place 10 or 15 or so years ago, Canada lost the opportunity for Google to be Canadian, for Facebook to be Canadian. You touched on this a little bit in your reference to cloud computing. What is Canada doing well now? What strengths can we leverage? Where can we continue to foster innovation and knowledge-based work and economies?

Dr. Michael Geist: There's been much talk of late about some of the success stories among some smaller players, say, in the app market. Toronto has seen a number of significant players move into the app market. We've seen a large number of buyouts lately, where Canadian start-ups, as they move up the chain a little bit, get picked off by U.S. companies. I recognize that for the entrepreneurs involved this represents a significant win. It's the big payout that they've been working for. But from a Canadian perspective, it creates a problematic cycle. You need the larger players to become large—that's when you start seeing the ecosystem develop. We saw it years ago here in Ottawa when the Corels and the Newbridges of the world started creating all sorts of spin-off companies. We had second and third generations of new companies coming into the marketplace, which by and large fed off these previous successes.

In your riding, the success of RIM led to these kinds of second- and third-generation companies. If we have a marketplace where it's tough to get big and get big fast, and part of that is because of the legal framework, we're not going to see those second- and third-generation spinoffs from people who have done well and start building out. Instead, we have become a bit of a farm team to some of the larger players in the United States. It's great for some of those big players, but I think there are some negative longer-term consequences in what it means for our economy.

The Chair: Thank you.

Mr. Thibeault.

Mr. Glenn Thibeault (Sudbury, NDP): Thank you, Mr. Chair.

Mr. Geist, you talked about the digital lock and how it would have an effect on e-commerce. If I want to buy something online, it could be locked digitally...there's a lot of confusion out there with consumers. Maybe you could talk a little bit about that.

• (1640)

Dr. Michael Geist: I'd be happy to.

The concern is there is nothing to stop any business from employing a digital lock. We've seen that in a number of businesses. Many businesses have given it up. You might think back to the music industry that started with digital locks. They thought they needed to lock it down. Consumers, by and large, rebelled and rejected it, and what the industry did was ultimately drop it.

So no one is saying that it isn't open for a business to choose to have a digital lock. Whether we're talking about consumer groups, education groups, the Retail Council of Canada, or many others, the concern they have is that the current proposal in Bill C-11 would effectively mean that the presence of a digital lock would trump many of the other rights that exist within the Copyright Act.

So consumers who purchase a DVD find themselves unable to transfer it from one device to another, and that creates a pretty significant lock.

Earlier this year, when RIM launched the PlayBook, I had the chance to mention this as well when I appeared before the committee studying Bill C-32. I talked out of concern that for people who have invested in a competitor platform—let's say the iPad—the real cost of the device isn't in the device; it's in all the content that, over time, gets accumulated. It's in the e-books, it's in the movies, and the television shows and all the rest of the content you buy.

If what we do is have policies that encourage the use of these digital locks—which, make no mistake, is precisely what Bill C-11 does—then the cost to a consumer transferring content from the iPad to the Canadian PlayBook is increased dramatically because the costs there aren't just in the device. It's now the cost of transferring all that content because the consumer is literally locked out.

Mr. Glenn Thibeault: Thanks for clarifying that.

Switching gears a little bit now, to Mr. Patacairk—did I pronounce your name correctly?

Mr. Blair Patacairk: That's correct.

Mr. Glenn Thibeault: Perfect. Thank you.

Maybe you can describe some of the challenges that your members may have faced in adopting and adapting to e-commerce technology.

Mr. Blair Patacairk: Most of our members who are in e-commerce to the point of what Samer was just describing find it's just a tough market to get into and actually succeed in. And I don't want to echo what everybody has said here for the past hour and a half, but for all these reasons combined, people tend to stay away from it. It's just way too risky to get into a business if you want to go on and excel.

The United States right now are breaking down the barriers. They're breaking down regulations to get ahead so their companies can compete. And as a foreign direct investment senior person in our organization travelling around the world, especially in the United States, I've seen more mergers and acquisitions than I can count these days than greenfield investments and just good investments happening in Canada.

What's ending up happening is that these companies are coming up, seeing the gap there, and taking advantage of it, and they're coming up and buying up our companies. It is a major issue that we're going to continue to have. And frankly, it's not just in this sector; it's all the way across the board. I can name a few recently, but there are a lot of companies up for sale right now. Our companies will shy away from the e-commerce business for all these reasons and try to get into something else.

There was a comment about what we can do. I think the federal government is starting to get a better handle on what needs to happen. There is a program right now that we take advantage of for STEM and all these great things that we do, as people who bring together academia, industry, etc.—for example, FedDev, or Ontario's SODP program. Depending on who you talk to, you call it one of the two programs, but there are great programs there for companies, including STEM—science, technology, engineering, and mathematics—which people can take advantage of.

It's guys like us, at a regional level and an economic development agency level, where the rubber hits the road with companies. We have the pulse of them, and we understand what's going on. A program like that is brilliant because it brings the federal government, from the top right down to the grassroots, to start working across the board in all the different areas.

So kudos to the federal government. We have miles to go. The United States is figuring out quickly how to capitalize on that, but if we don't get our act together on e-commerce and across technology, they're going to keep coming up here and gladly taking over our companies.

• (1645)

The Chair: Thank you, Mr. Patacairk.

Mr. Thibeault, that's all the time there.

Now on to Mr. Lobb for five minutes.

Mr. Ben Lobb (Huron—Bruce, CPC): Thank you, Mr. Chair.

My first question is to Mr. Geist, and it's a general comment. Many good points were brought up in the opening presentations. One thing I didn't hear, though, that stifles innovation concerns the U.S. patent lawsuits.

I used to work for a software company before being elected. The company I worked for was a 150-employee outfit that had started to really put the boots to the U.S. competition. And they were sued in the southeast district of Texas for patent infringement. They were one of the lucky ones. They actually came to a resolution so they could continue with business.

How can young Canadian firms protect their intellectual property and do business in the U.S.? That's where many of the new businesses are going to grow their companies. So how can they do that? How can we help them? What can we do?

Dr. Michael Geist: I don't think it's strictly an issue of how to do business in the United States. There are problems associated with patent thickets. The ability to innovate in whatever the space happens to be is often impeded by what's called a patent thicket, where you have multiple patents all over the place. You're effectively creating an arms race, not so much for innovative purposes, but merely to have something to defend yourself with when somebody comes calling.

From my perspective, that represents an incredible amount of waste, in a sense. Lately we've seen it in the smartphone market, for example, with billions of dollars being spent, not to conduct R and D, not on marketing, developing, or doing a range of the sorts of pro-innovative things we like to see, but just for these companies to arm themselves for the prospect of future battles.

From a Canadian perspective, we have to recognize that we need a patent act and patent reform to ensure that we try to avoid, to the maximum extent possible, some of those kinds of patent thickets that can actually stifle innovation.

I would point to one in the pharma area. In negotiations with the European Union as part of CETA, significant pressure is being brought to bear by the European Union for increased protections on the patents side. I think that will have more of a stifling effect for

some of the Canadian-based pharma companies. They will find stuff locked down, never mind the associated costs that will increase costs on the pharma side for consumers.

Mr. Ben Lobb: Okay.

I have one question for Mr. Wilson.

Enterprise resource planning systems are obviously very valuable to the group you represent. You mentioned there are 10,000 people or companies that you represent. How are they evolving with their ERP systems? What percentage would be real time? I know where I worked before we weren't real time and it was an issue. I'm just wondering where most of your companies are with that technology.

Mr. Mathew Wilson: I'll make a general comment.

I don't know, Martin, if you have anything else to add.

Because of the breadth of companies, from large multinationals to small software engineering firms, there's probably a broad spectrum of where they are on that. I couldn't put a definitive answer on where anyone is or anything else. It depends on the region, the company, and the sector they're in.

Mr. Ben Lobb: In terms of competitiveness—obviously, if you have a state-of-the-art system that's real time it adds a huge advantage—what can we do as a government to help promote businesses to make that investment?

Mr. Mathew Wilson: I think there has been a lot done. The ACCA will help quite a bit, as I mentioned earlier. It's a critical thing. Making that a permanent deduction would be very helpful. Right now it's only a two-year phase that was just extended in the most recent budget.

You're right that the ability to do real time anything is critical in the business world, as well as in the consumer world. So any type of technology innovation that can be brought to bear—we talked about skills training of employees—is very helpful public policy. I don't have anything more specific than what has already been answered.

Mr. Ben Lobb: I'd like to discuss briefly the IRAP and SR and ED programs. The company I worked for was a huge benefactor. What are your thoughts on those programs?

Mr. Martin Lavoie: There's probably a way to expand SR and ED a bit. The Jenkins panel report made some recommendations to make it just labour costs, for example. That would restrict the types of activities that would be eligible under SR and ED, considering that 70% of R and D in Canada is done through SR and ED and indirect programs. So if IRAP can counterbalance the indirect support we're providing right now with some more direct support for ICT acquisitions, we would probably support that recommendation.

•(1650)

The Chair: Thank you, Mr. Lavoie.

Now the vice-chair, Mr. Masse, has five minutes.

Mr. Brian Masse (Windsor West, NDP): Thank you, Chair.

Thanks for coming here.

I thought it was raised that those crazy radical socialists in the United States decided to restrict debit card fees because they were unfair. It's a good example of sometimes needing a strong regulatory system.

I'd like to ask Mr. Wilson and Mr. Forzley a question about their members and their experiences out there. When it comes to fees for credit cards, or whatever, we know that they're higher here in Canada, but are the banks consistent in Canada with those in the United States? Do we find that the banks are different—U.S. versus Canadian banks—or do we find, for example, that my bank, TD Bank, charges something different in Canada than in the United States?

Mr. Mathew Wilson: Can I pass the buck on this one?

Mr. Brian Masse: You can. If you don't know, it's okay.

Mr. Samer Forzley: In many cases, in the U.S. or even here in Canada, you're not dealing with the bank directly; you're dealing through a payment processor. These are the people who actually process your payments, even though the credit card companies—say VISA or MasterCard or the banks—sometimes get the heat. In a way, it's the payment processors as well that are part of the issue, so on the banks' side, their portion is now restricted through the Durbin Amendment or others. In the U.S., at least, they are now going to have to be consistent because of that amendment. That only applies to debit cards, of course.

In Canada it's different, because really there is not much competition, and it's more that you negotiate one on one, so the fees vary by merchant.

Mr. Brian Masse: Maybe I'll ask a question for our researcher and then come back to this—a little bit of a picture of the different level of fees that are being charged between Canadian businesses and consumers and those of the United States. That would be interesting information to have.

I am really worried about our competitive nature. As this industry grows, if we continue to have this inconsistency, it's going to create more problems. We need to nail that down. Perhaps that can be done by regulation, if anything.

I'm going to turn the rest of my time over to Mr. Thibeault. He will ask the rest of the questions.

Thank you very much.

Mr. Glenn Thibeault: Thank you.

In following up on that, we're hearing about things like Google Wallet. That has been launched in the States, but it is also using VISA and MasterCard, which have those interchange rates. I'm sure it's inevitable that Google Wallet is going to come to Canada. What type of impact will that have on merchants?

In the last Parliament, this committee looked at how interchange rates are affecting small and medium-sized enterprises. When we have something like Google Wallet coming forward, which we are hoping will make things easier for the e-consumer, how is that going to hit SMEs?

Mr. Samer Forzley: I assume the question is for me.

Google Wallet, or others like it—Amazon Payments, or PayPal, and there is a slew of them—not only use credit cards. In the U.S., the fact that your debit card is VISA or MasterCard branded allows you to use debit cards online. They also allow you to do ACH, where you give the provider your bank routing numbers and they can draw money from your bank account. So by virtue of being part of Google, PayPal, Amazon, or others, you are now able to access money directly from your bank account.

Actually this space, the whole peer-to-peer and wallet space in the U.S., is heating up quite a bit. As it comes to Canada, it will increase adoption, of course, because if you trust Google and you have everything Google, Amazon, PayPal, or whatever, you have your digital identity in a way tied to your credit cards or debit cards online and you can transact more readily. It does, in a way, provide some layer of safety because those programs have some buyer protection as well, on top of what your standard credit card or debit card gives you.

The trick for Canada is easily tying your debit card and access to your bank to your wallet. It's not easy because you don't have a network branded debit card.

Mr. Glenn Thibeault: To Mr. St-Amant, where I was going next, you talked a little bit about it, so I guess in terms of consumer protection, how can Canada better prepare itself for the widespread adoption of mobile payments or e-wallets?

•(1655)

Mr. Jacques St-Amant: First, to your previous question, there are two other issues that I think we should add. Our payments infrastructure—our plumbing, if you wish—is pretty much not able to currently sustain the kinds of new payments that are developing in the United States. We have lagged behind in that area too.

Another issue is that depending on the type of device you want to use, the retailers may have to spend more to have the gizmo on their counter, and they're not necessarily very keen on that. I'm sure the Retail Council, for instance, would be glad to tell you all that in detail.

In terms of consumer protection, the current situation is untenable. We have a number of rules, some in federal legislation, others in provincial legislation, in CPA rules and in codes of conduct that nobody has ever heard about. Contract law in general is impossible to understand, and I would argue that for the benefit of everybody—the issuers, the consumers, the retailers—we need to have some sort of level playing ground so that everybody knows what the rules are. I'm afraid that will entail federal legislation.

It may be that we can at least create a floor. After that, a hundred flowers may develop as competitors may want to offer better protection, etc., but we do need to have a clear floor, and I would argue that it probably comes mostly under federal legislation, but you may wish to have nice long chats with your provincial and territorial friends too. There are mechanisms in place to address issues of harmonization, but there is a reflection to really develop there.

The Chair: Thank you, Mr. St-Amant.

I want to advise members that I'm being pretty flexible here. I'm refereeing the aggregate times of the parties, but because of the nature and sophistication of the answers, I'm trying to give the witnesses time. I'm trying to balance the time as a whole, because of the nature of what we're dealing with here.

Now on to Mr. Richardson.

Mr. Lee Richardson (Calgary Centre, CPC): I was curious about the differences in regulation between Canada and other countries. Mr. Geist talked about caps. I'd also like to pursue the differences between the banks here and those in the United States.

Why do we have all these impediments here in Canada? Who are we protecting?

Dr. Michael Geist: On the data caps, which became a big political and popular issue earlier this year, with usage-based billing, I think what we saw here was a couple of years of a policy running under the radar screen for most Canadians. The relationship with the CRTC was such that you had a couple of larger players, led by Bell, that were able to push forward.

I thought the government, all political parties, did a good job in February to grind that to a halt. We had hearings from the CRTC over the summer, and we'll see what the CRTC actually does. But recognize that our caps problems won't get solved solely by regulating them away. I don't think that's what the CRTC will do at all. They might do it at the wholesale level. They're not going to be solved at the retail level. The only way you can fundamentally change them is to change what the marketplace competition looks like. We need more competitors. We may need some of the open-access rules that we heard about from the manufacturers. Those are the kinds of things that help smaller ISPs that sometimes have large subscriber bases in local communities but aren't nearly as large as the big players. Allowing them to compete effectively, allowing new entrants to come in, trying to foster the wireless broadband—these are some of the tactics we can engage in to allow us to stem what has been a gradual decline in the Canadian situation. We're one of the only countries in the world that has virtually uniform data caps. The effect of that is significant hidden costs when you start talking about new kinds of e-commerce services.

Mr. Lee Richardson: Can you comment on the banks?

• (1700)

Mr. Samer Forzley: From a practical point of view, in the U.S., the banking network is fairly open. Today, even though every week we hear of more banks closing, there are still over 17,000 banks in the U.S. Many of those are small, one branch. They're credit unions of the firefighter departments, for example. For those banks to be able to do business, whether it's through debit cards, credit cards, or even online banking, the banking network has to remain fairly open.

You can actually enter that network in several ways. You can be sponsored by a bank. You can work with somebody like an RPPS, which is owned by MasterCard. There are different ways of entering this banking network, and for a competitor, whether it's an alternative payment provider or a credit card processor, it's easy to enter. Even at the bank level, there's a significant number of banks. As for payment processors, if you sit down and list them, they number in the hundreds. Here it's not even in the tens.

So it's a fairly open network. Almost anyone with a little bit of money who can actually put a deposit down to guarantee the payment flow can join that network. It's just a different structure altogether in the market.

Mr. Lee Richardson: I wish that was more helpful. I'm still not quite understanding what the difference is.

Mr. Samer Forzley: You can't easily become a bank in Canada. For you to become a bank there's a significant process and it's very restrictive. In the U.S., you can put down a \$100,000 deposit and in short order you become a bank. It's that simple, and as soon as you want, whether you're a bank or a processor, you can start moving money, and by virtue of that you can start competing, whether it's on the credit card side, the debit card side, or an alternative side. It's easier to access that banking network and become part of that network. It's not that easy here.

Mr. Lee Richardson: All right. Thanks.

The Chair: Thank you, Mr. Richardson.

Madam LeBlanc.

[*Translation*]

Ms. Hélène LeBlanc (LaSalle—Émard, NDP): My question is for Mr. St-Amant, to follow up on the conversation started by my colleague Mr. Thibeault. He was talking about electronic wallets.

Do you think it would be appropriate to create here in Canada a type of authority, governmental or otherwise, that would focus exclusively on electronic payments?

Mr. Jacques St-Amant: In the discussion paper published in July, the Task Force for the Payments System Review suggested a structure that included a joint organization and a monitoring and regulatory agency. Various stakeholders provided comments and requested greater clarification about the proposal. But, as far as I know, no one has so far said that it was a bad idea.

I think we're going to have to give some thought one way or another to a system of regulating and monitoring these payments. In Australia, for example, it is very clearly the Reserve Bank of Australia that monitors payments. It's a little more complicated in the United States, but the Federal Reserve plays an extremely important role. Right now, we are looking at a review of the financial sector regulations in the United Kingdom, and they are going to ensure that these questions will be addressed by state regulators.

To go back to the previous question, I should say that the financial sector is special and that, in many cases, to increase competition, the regulation needs to be a little more and a little better. Because the financial sector uses or handles peoples' savings—your savings, the payments you want to make and the payments you want to receive. So, if we want new players on the market, we need to ensure, in the interest of macro-economics and in the interest of the various individual stakeholders, that we have in place rules that have been adapted. Prudential supervision, for example, applies to a bank that has \$500 billion in assets, but may not apply to a small provider. But there need to be rules all the same. Right now in Canada there is absolutely nothing.

We need rules and we need someone to put them in place, to encourage more competition. But we need to ensure that everyone knows the rules, both for electronic payments and traditional payments. We are now seeing a situation where an increasing number of merchants are refusing to accept cash. But for the 5% or 10% of Canadians who do not have a credit card or a debit card, refusing money issued by the Bank of Canada poses a problem.

[English]

The Chair: We lost our translation.

[Translation]

Go on, Mr. St-Amant.

• (1705)

Mr. Jacques St-Amant: I'm sorry. I'm sure I was speaking too quickly.

Not only do we need to consider electronic payments, but we also need to rethink the issue of payments altogether. Increasingly, it's a world that is changing and payments, as I said earlier, are essential to all forms of electronic commerce.

Ms. H  l  ne LeBlanc: Two of you—and perhaps your colleagues will concur—mentioned a changing framework and said that we should have a flexible regulatory framework.

What would the conditions be to meet the needs particularly of consumers and businesses, as well as banks? We know that all this technology is changing very rapidly. What would the conditions be for an evolving legislative framework?

Mr. Jacques St-Amant: There are some basic regulatory principles that are neutral when it comes to technology that could be used and that would be easy to adapt.

The other aspect that most stakeholders have been wanting for years is the implementation of a forum that would allow people to sit down around a table and discuss these issues intelligently, coherently and in an organized manner. It's one of the suggestions made in the task force's discussion paper. Although it isn't easy to put in place, it would be an extremely useful tool. There are already some forums, but they aren't enough.

Obviously, the considerable challenge we are facing in this sector, as is the case in the telecommunications sector, is that there are a small number of players who are extremely influential and who have so far found the situation very much to their liking. So the change is likely to upset them a little. We need to explain to them that if we make this change correctly, in a larger market, even with perhaps a

slightly smaller share, they are going to make more profit and even they could be winners.

The Chair: Thank you very much, Mr. St-Amant.

[English]

We will now go to Mr. Lake for five minutes.

Mr. Mike Lake: Thanks, Mr. Chair.

Mr. Geist, I'm going to come back to you, if I could.

Earlier you talked about Canada having an opportunity to be a world leader in the digital economy. Over time you have said that many times, I've read. You have many ideas on how that might be. There are so many different things on the table right now: the type of discussion we are having here; the digital economy strategy; the Jenkins report that is coming out; the anti-spam, copyright, and PIPEDA legislation you referred to earlier; and the discussion about spectrum and foreign ownership.

As you think of the manufacturers and exporters Mr. Wilson and Mr. Lavoie are here representing—the retailers and small and medium-sized businesses—and not thinking about the technical folks, the IT people, what are the opportunities for them if we get this right? What would that world look like for them? What are the opportunities they are missing right now?

Dr. Michael Geist: A decade ago, when people were talking about e-commerce, what they were talking about, to a significant extent, were low barriers to entry. The idea was that someone, anyone, a small business person, could suddenly now access a global marketplace. Frankly, what I have heard for the last almost two hours now is that the barriers to entry are even higher than most envisioned they would be. In fact, they may well be higher now than they are in the offline world, which certainly isn't the promise e-commerce provided.

Mrs. Cukier talked about disaggregating things a little bit. I would disaggregate not so much on success and failure but on the different kinds of businesses. There are low barriers to entry in the service sector, where we are not necessarily talking about big equipment or products and the like. We are seeing some movement in that area, although not nearly enough, in part because of the absence of protections. Let's say you are trying to create a platform, and you are now liable for everything everybody says on your platform. That's a significant risk in Canada that doesn't exist in the United States.

There are opportunities both to sell physical products and to engage in some of those services. It is pretty clear that if we have barriers, whether legal risks or business risks or simply barriers-to-entry challenges—and it's clear that we are facing all three—a lot of this promise remains unfulfilled.

• (1710)

Mr. Mike Lake: If the environment were to look like you would like it to look, and we have talked about what that environment might look like, what would it look like for the manufacturer? What would your world look like for the exporter or the retailer in Canada? What would the interaction with the consumer look like in your perfect world?

Dr. Michael Geist: You would start to see it the way you see it in some other countries. You see it to a certain extent in the United States in basic retail. You see it in places like Japan and South Korea, where using the network for many services, games, and entertainment, what we are characterizing here as e-commerce, becomes the primary way people purchase and interact. That presents a tremendous commercial opportunity.

It is important to recognize that we have talked about Canada being a small market and about the desire to move elsewhere. In many instances, it's almost a requirement to, because the market is small and you face these barriers. If we create an environment in which companies start here, grow here, and become large here, you will have the opportunity to sell to a global market. We are all familiar with the challenges RIM has faced recently. RIM is a classic example of something that started here and very quickly became a global player. It's trite to say that we need more of those, but we need more of those. One of the things we need to do is identify what in our current framework may be inhibiting that from taking place.

Mr. Mike Lake: Mrs. Cukier, do you want to comment on that at all?

Prof. Wendy Cukier: Yes. As I said at the outset, you definitely need an environment that doesn't impose impediments, and I don't disagree with that. But you also need people who aspire. One of the things that is often said about Canadian...we have lots of start-ups; they don't make it to the next level. I think Professor Geist's point about what Canadian entrepreneurs often aspire to is being sold to someone else is unfortunately true. We just did a study that showed more than half the start-ups we looked at were getting financing outside of Canada. That has something to do with the risk aversion of many of the financiers and the difficulties in accessing capital in Canada.

What I would argue—I could be proven wrong—is that you could make a lot of the regulatory changes that are being discussed here. You could open up things. You could drive down prices. But if we don't address those issues around a culture where people are encouraged to try and fail, if we don't ensure that engineers are coupled with people who understand what a market is and how to meet the needs of a market, if we don't get those things right, you can deregulate everything and I'm not sure we'll be further ahead.

The only other thing I want to say—as I've been around since we had the discussions of interconnection and long-distance competition—is if you're outside the major urban areas, the issues around access to infrastructure and so on.... I haven't heard very many people talking about those issues. If we're interested in moving the Canadian economy ahead and the quality of life for all Canadians, we do have to grapple with some of those access issues.

Total deregulation may not be the solution to addressing the needs of people in northern Ontario. That's something I'd like to make sure gets on the record as well.

The Chair: Thank you very much, Madam Cukier.

We have now finished the second round. We're moving to the third round. We have just enough time for that round. We will probably be a couple of minutes over to make sure everybody gets their full five, but we'll need to stay disciplined on that, so please excuse me in advance if I have to interrupt you.

Mr. Braid, for five minutes.

Mr. Peter Braid: Thank you, Mr. Chair.

You mentioned earlier, Mr. Chair, the sophistication of the answers, but you were silent on the sophistication of the questions. I don't know if that was intentional or not.

Ms. Cukier, my riding is Kitchener—Waterloo. We have a strong climate for innovation there. There are a range of reasons for that. One is the policy at the University of Waterloo for professors to own their intellectual property. Could you comment on that, and perhaps describe what your policy is at Ryerson as well?

Prof. Wendy Cukier: Many people believe the Waterloo policy is the way to go at universities. At Ryerson, faculty and students retain their intellectual property except in cases where the university has invested significantly, in which case the university negotiates a share with the individual. But as a good friend of mine said, 10% of nothing is nothing. So it really is important to encourage innovation.

Again, in my view, we don't do enough real evaluation, so a lot of what we talk about is anecdotal, but most people would say that Waterloo has got back exponentially what it gave up by not taking a very restricted view of intellectual property.

•(1715)

Mr. Peter Braid: I have some questions for our OCRI representatives as well. Ottawa, of course, has also built a strong climate for innovation. OCRI has been part of that.

Could you describe or explain how OCRI has helped to foster and support innovation in the Ottawa area?

Mr. Blair Patacairk: Sure.

There are really three fundamental pieces to OCRI. One is the entrepreneurship centre, where we take young companies and foster them and get them going. Basically, we hatch them and get them rolling.

Part two is the regional innovation centre, which is a provincially funded program that takes the more mature companies looking for seed funding, whether it's first, second, third round, etc., and prepares them to go and actually make the pitch and get the money. This is a big deal considering there's not a whole lot of money sitting around in Canada these days, so internationally.... We work with different programs federally to get them money, whether it's through OCE or IRAP, etc. We really get them rolling, making sure they have a good foundation to grow their business.

The third part is the one on my side, where they throw them over the fence to me and I take them to the world through business development and basically make sure they hit the road running internationally.

I think our model, the model that's in your area of Waterloo, with CTT and Communitech, for example.... These are excellent examples of what can happen when you have good organizations working collaboratively with universities and colleges.

I wanted to pick up on one of the things that Wendy was saying, and that is, we need more champions in Canada. We need more RIM champions to go and do what they're doing—not just the company, but the individuals who come out, like Balsillie...the Terry Matthews of the world to take on these companies.

To your earlier point, we can put any program we want in place and we can do all the mentoring we want at our level and at the university level, but the rubber really hits the road when the industry guys come out and help mentor those people. There are very few people out there who are true entrepreneurs. The number is pretty small, and out of that number, we're only grabbing a fraction of those folks. What we say at OCRI is that if 10% are true entrepreneurs and we're only grabbing 3% to 5% of them, if we could up that by 2% to 3%, exponentially we've got a whole lot more people on the ground building a great entrepreneurial culture.

That's very hard to do, because it's not just us, it's not just government, it's not industry, it's everybody together pushing the same way. That's what organizations like ours, and Communitech and CTT, do very well, working collaboratively.

Prof. Wendy Cukier: I was just going to add that some of the new programs, like FedDev, are particularly valuable in promoting that sort of collaboration. We've certainly had huge benefits with our corporate partners in harnessing talent and innovation by accessing programs that really promote those sorts of partnerships rather than reinforcing the silos.

The only thing I would add is, I'm not convinced that we have done as good a job as we could in documenting, evaluating, and telling the stories of some of those successes and failures. A lot of our start-ups don't make it and we don't necessarily understand why. I think more work needs to be done.

The Chair: Thank you very much.

Now on to Mr. Julian for five minutes, and he'll be sharing his time.

Mr. Peter Julian: Yes. Thank you very much, Mr. Chair.

I'd like to come back to Ms. Cukier. I didn't get a chance to ask you this question in the first round.

You identified some of the key areas where the post-secondary sector could contribute, around digital skills, research, innovation, and commercialization model users. I wanted to ask you, globally, how do you think our educational sector is doing across the country? Are they stepping up in those areas? If so, could you give us one or two examples? If not, what's required in order to have our post-secondary institutions providing that important role?

• (1720)

Prof. Wendy Cukier: What I would say is that at post-secondary institutions there are many pockets of innovation. There are many institutions across the country—too many to name—that are doing interesting and innovative things.

What I would also say, however, is that many of the existing structures of funding, of rewards systems and so on, don't actually reinforce those behaviours. I think you have to recognize that many of the structures currently in place were developed many, many years ago when R and D in the telecom sector meant that Bell-Northern Research was trying to figure out how to stuff more information down pipes or how to do it wirelessly. Those things are still important, but we know that a lot of the opportunities, especially in the e-commerce space, are very fast and require different models of development.

So while we have to continue to support discovery-based research—it's critically important to Canada and to the universities in particular—I think new mechanisms to promote these kinds of partnerships, market-driven research, and experiential learning for students are hugely important, because we know that youth unemployment in Canada is a really serious problem. We've been very lucky and are not a victim of what that can lead to, but I do worry. If we don't find ways to break that catch-22 for young people and for immigrants—if you don't have the experience, you can't get the job, and you can't get the job because you don't have the experience—we're going to run into problems. That's why I think innovation and thinking of new and creative ways to tap those skills are critically important.

Mr. Peter Julian: Thank you.

I'm going to give the rest of my time to Mr. Thibeault.

Mr. Glenn Thibeault: Thank you.

We've been hearing a lot about innovation and we've been talking a lot about e-commerce. Part of that, I think, is the mobile payment industry. In more and more of it, we're starting to see new apps come out on the PlayBook, on the iPad, and for our phones. With that right now is some concern as to who is regulating the creation of these applications that are being purchased by everyday consumers.

So I'm on my iPad—or I'm on my PlayBook, as Mr. Braid would like to hear me say—and I'm scrolling through and see this new application that I could purchase through e-commerce, but now this application allows me to go to a store and just click, so I've purchased it and it has gone through to my credit card. Who's regulating this, who's creating the applications, and who's benefiting?

The concern here is that we've already heard that interchange rates for our small and medium-sized businesses are higher than those of other countries, and we're going to see businesses not want to get into this field because of the costs associated with them, but this is where consumers are going. My eight-year-old wants to buy stuff on the Internet. So what do we do? Where do we start?

I guess I'll start with Mr. St-Amant, and I know Ms. Cukier would like to comment as well—in a minute.

A voice: Less than a minute.

Mr. Jacques St-Amant: Actually, we may wish to go in that direction, because these types of payments can be efficient, but the day someone gets ripped off, the whole industry goes down. Right now, a lot of this is strictly regulated, if I can say that, by your agreement with the provider, as you know: it's that fine print with clauses that say, "I, the provider, am responsible for nothing at all". You can find those clauses even in the bank's agreements. I could give you a few nice examples. That's not the way to go. That's not the way to make sure that people trust what's happening.

I'm looking at it from the consumer's standpoint. I'm sure that the retailers would tell you they have the same types of clauses in their agreements with the banks or with the different providers. We need to put some sort of minimal order in there.

• (1725)

The Chair: We're going to have to end with that.

We're now on to Mr. Braid for five minutes, who is sharing the time with Mr. Carmichael.

Mr. Peter Braid: Thank you, Mr. Chair.

I have just one question, and then I'll pass this on to my colleague, Mr. Carmichael.

This is perhaps just an open question to the panel, to whoever may be prepared—and I don't mean to put anyone on the spot—on the Jenkins report. The Jenkins panel released their report just this afternoon at two o'clock. Are there any thoughts from those of you who've had the opportunity to digest any of it? What have you heard about the report that you like?

Mr. Martin Lavoie: We agree there's some cleaning that needs to be done with regard to all the programs. They want to put everything under a new structure that would oversee IRAP and others. We don't have anything against that.

There are some good recommendations with regard to BDC and venture capital. They're looking at new credits for BDC to support late-stage start-ups.

What we need to do is consult with our members with regard to the change for SR and ED. Making it only labour costs, just because it would make it simpler...I need to find out, in the manufacturing sector, how much of the R and D is more labour intensive and how much is less labour intensive. Some would be penalized with that.

They want to reduce refundability. CME is a business organization. We've been proposing the opposite. In the last years, we wanted to increase refundability of SR and ED.

What they're suggesting is that we use the money we're going to save with this for more direct support to businesses. So we would like to see what the government will choose to do or not do, because they're only recommendations.

The Chair: Mr. Carmichael, go ahead.

Mr. John Carmichael: We'll all come away from this meeting today with different takeaways, and some of them I find pretty exciting. One of them sounds like a new reality show—how we're going to fund those creative entrepreneurs.

I'd like to finish with Ms. Cukier. On your digital media zone, you talked about the success you've had. I wonder if you could talk

briefly about the balance between the successes and the failures. You've put a lot of investment into it. I think you said you created 240 new jobs, which is great. It sounds like this is an opportunity that a lot of universities and educational institutions are going to be taking advantage of. So perhaps you could talk briefly about not only the creative side but also the entrepreneurial side. There seems to be a disconnect. How do we get them funded? How do we keep them?

There are companies that have put tremendous amounts of money into funding these new start-ups, and they have had their share of successes and failures. The bulk of them are failures, though. I don't think we've seen the success we need. I wonder if you have some closing thoughts on how we can change that.

Prof. Wendy Cukier: You will not find a successful entrepreneur who hasn't had at least one failure. One of the things about building an innovative culture is giving people the freedom to fail. And that's a difficult thing for a lot of universities. That's part of the reason many of them have been reluctant to go forward.

There's no question that the principal success of the digital media zone is in the model of experiential learning and life-changing experiences it's created for the students. It's too early to tell how many of those companies are going to survive. If they survive at the same rate as start-ups across the country, we've got something.

I can tell you about two. I don't know if you've seen the bionic arm. It's an arm that operates based on brain waves. It sounds like science fiction. It costs 20% of what a surgically implanted artificial arm costs. These kids are 19 and 21 years old, and they're being chased by investors all over the world. Now they're working on a walking wheelchair. It's mind-blowing.

Another post-doc student developed a context-aware computing application, which he sold to the Paris Métro. It is being implemented by Metrolinx in Toronto and looks as though it's going into the Vancouver airport.

You only need a couple of these mega-successes to make the investment worthwhile. But my message is that you can't have success without failure. And we have to start creating an environment where people can take those chances.

• (1730)

Mr. John Carmichael: Could I add just one piece to that?

The Chair: We're over time. I'm sorry, Mr. Patacairk. But Mr. Regan may give you an opportunity.

Mr. Regan.

Hon. Geoff Regan: Thank you. I thought we were finished, Mr. Chairman. I'm delighted to take the opportunity.

Professor Geist, what reason would there be for the government to prohibit the circumvention of digital locks? Who does it serve?

Dr. Michael Geist: I think it's relatively clear that the digital lock provision, which.... And I'll emphasize again that almost everything in Bill C-11 does a pretty good job of trying to strike a balance. The one exception to that is the digital lock provision, and if you take a look at any number of things, whether it's documents that have come out through things like the WikiLeaks cables and the like...the reality is that this is the result of significant pressure from the United States.

The disappointment is that so many groups—business groups like the retailers, education groups, consumer groups, the Business Coalition for Balanced Copyright, which includes the major telcos and the broadcasters—and it's really across the spectrum, have all said it's not that they don't want legal protection for digital locks, it's that they want the same kind of balance in language that you've tried to install in so many other places. It's complying with our international obligations, it provides legal protection for those who want it, but at the same time it doesn't eviscerate many of the kinds of rights that retailers depend upon so consumers buy the products, that consumers depend upon, and that our educators depend upon.

Hon. Geoff Regan: Thank you.

I'm thinking of today's report on innovation and the role of universities and community colleges in technology adaptation, and we talked about that in terms of adapting e-commerce. What are the gaps in transferring information and why are they there, do you think?

Prof. Wendy Cukier: It's a good question. I think that historically when we've talked about...and I go back to the information highway. There's been a lot of focus on building physical infrastructure. I think historically we've paid inadequate attention to building the skills infrastructure that we need to take advantage of the technology and to enable all our citizens to actively participate. So I think in general the soft skills and that piece of it has tended to be ignored, except for STEM. I would say that STEM alone is necessary but insufficient to take us where we need to go.

What comes out of that, then, is a focus on the technology bits and inadequate attention to when it's appropriate to apply the technology. If you look at the productivity paradox you can see perfect examples of where some companies invest heavily and get a huge payoff and some invest heavily and lose a huge amount, and it evens out.

What we have to better understand and better teach people is how to increase their chances of success.

The final thing is around entrepreneurship. We are not as entrepreneurial as we need to be as a nation, and we need to figure out ways to use the school system in particular in partnerships with industry to advance that in our culture.

Hon. Geoff Regan: Thank you.

I'm trying to recall who it was—perhaps it was Mr. Wilson or Mr. Lavoie—who first spoke today about the difficulties of attracting large cloud-based service companies to Canada. My question is, how do we do it?

Mr. Mathew Wilson: I think it was Mr. Geist in that case.

Dr. Michael Geist: I'm happy to talk to cloud issues. I think a couple of points need to be made.

For many cloud services, for these server farms, energy costs are by far the most significant costs they incur. We have a natural advantage. Any number of people have pointed to the potential we would have to locate server farms up in the north, where naturally it's fairly cold. You could have a carbon neutral system there where you're literally taking the heat that is being generated out of those server farms and repurposing it for use elsewhere. It's fairly cheap. We have fast fibre optic cables that could take that data and send it elsewhere, and it's all located in Canada. We haven't seen that developed in a way that it might be. Countries like Iceland are trying to put forward precisely the same kind of proposition.

I'd note as well that we face a big problem with respect to interchanges here, not the financial interchanges that Mr. Thibeault and others have been talking about, but the interchanges in terms of data itself. So the number of interchanges we have with the United States, where often the data might start in a Canadian server farm and go down to the U.S., is fairly limited; they're largely controlled by the usual suspects, so to speak. One of the things we have to think about is if we want to try to help foster the business case for more cloud services in Canada, we need to increase the number of interchanges we have.

And to that point, Mr. Wilson, in his opening remarks, referenced CANARIE, the research and education network; I serve on their board. We were renewed several years ago, but the renewal is coming up again next year, so it comes quickly. That hasn't been approved yet, and it's absolutely essential to ensure that CANARIE is approved, because, frankly, if it doesn't get approved, we're just going to have to build it again—our education networks and others are so dependent upon it.

● (1735)

The Chair: Thank you very much, Mr. Geist.

On behalf of the committee, I'd just like to say thank you very much for the great answers and information you have provided for us. Thank you for investing your time.

Yes, Mr. Braid, the questions were also profound and sophisticated, and I think that is why we extracted such good information.

Thank you very much.

Mr. Glenn Thibeault: I have just a quick point of clarification or a point of order. On the front of this, it talks about percentage of households in Canada with home Internet access. It doesn't include the territories, so Yukon, Northwest Territories, and Nunavut are not included in this. Is there any way we can get that information?

The Chair: I will communicate with the researchers and see if we can have that for you.

The meeting is adjourned.

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