January 2010

The Future of the Canada-United States Relationship - Innovation and Technology

Catherine A. Pawluch
Praveen Goyal
Catherine A. Pawluch
Bob William

Follow this and additional works at: http://scholarlycommons.law.case.edu/cuslj

Part of the International Law Commons

Recommended Citation
Available at: http://scholarlycommons.law.case.edu/cuslj/vol34/iss2/9

This Speech is brought to you for free and open access by the Student Journals at Case Western Reserve University School of Law Scholarly Commons. It has been accepted for inclusion in Canada-United States Law Journal by an authorized administrator of Case Western Reserve University School of Law Scholarly Commons.
THE FUTURE OF THE CANADA-UNITED STATES RELATIONSHIP – INNOVATION AND TECHNOLOGY

Session Chair – Catherine A. Pawluch
United States Speaker – Praveen Goyal
Canadian Speaker – Catherine A. Pawluch
United States Speaker – Bob Williams

INTRODUCTION

Catherine A. Pawluch

MS. PAWLUCH: Good afternoon everyone. My name is Catherine Pawluch. I am a partner with Gowling, Lafleur, Henderson,1 a Canadian law firm, and I have the distinct privilege of being a member of the Advisory Board of the Canada-United States Law Institute.2 I also have the privilege of being the moderator today for this afternoon's session.

We are going to focus on the future of the Canada-United States relationship with a focus on innovation and technology. What we hope to do this afternoon is to look at the future of the Canada-United States relationship, through the lens of innovation, advanced manufacturing, biotechnology, and entrepreneurship.

The panelists will address the opportunities that are available in the Canada-United States relationship. We have two eminently-qualified panelists to speak about their corporate success stories and identify some regulatory legal areas that can be improved, perhaps harmonized, to enhance the Canada-United States relationship in the context of innovation and technology.

I would like to introduce our first speaker, Praveen Goyal. He is the Director of Government Relations with Research In Motion,3 or RIM as we call

---

2 See id.
it in Canada. RIM, of course, is known best as the leading designer and manufacturer of innovative wireless solutions for the global mobile communications market. Praveen is a graduate of Yale College and Harvard Law School, and his career has involved various positions serving as Counsel within the United States Federal Communications Commission, within the United States Congress, and in the telecommunications industry. Please join me in welcoming Praveen Goyal from RIM.

UNITED STATES SPEAKER

Praveen Goyal*

MR. GOYAL: Thank you very much, Catherine, for that kind introduction. I want to thank the Canada-United States Law Institute for inviting me to their conference to talk a little about Research in Motion (RIM) for the second year in a row. It is an honor to be here. I also want to say how honored I am that the breaks have been named Research In Motion BlackBerry breaks.

I wanted to talk a little bit about the RIM story. We are now in our twenty-fifth year, and it is now ten years that the BlackBerry solution has been available. In that time, there have been tremendous changes at RIM, a tremen-

---

5 See id.
6 See Biography of Praveen Goyal, supra note 3.
7 See id.
8 See id.
9 See id.
* Praveen Goyal is Director of Government Relations for Research In Motion (RIM). Best known for its BlackBerry wireless handheld devices, RIM is a leading designer and manufacturer of innovative wireless solutions for the global mobile communications market. At RIM, Praveen’s responsibilities include developing policy strategies and representing RIM before policymakers domestically and abroad. Praveen is a graduate of Yale College and Harvard Law School, and his career has included various positions serving as counsel within the United States Federal Communications Commission, United States Congress, and the telecommunications industry.
11 See Research In Motion, supra note 4 (“RIM was founded in 1984.”).
mendous success story I think for a high-tech company that operates across the United States-Canada border. We are headquartered in Waterloo, Ontario, but we also have significant operations in the United States. We have recently announced a plan to open a United States headquarters in Dallas, Texas, which has now happened, and plans to grow that facility to about a thousand United States employees. We have also opened Research and Development (R&D) facilities in South Florida and in the Chicago area, in addition to the employees that we have across the United States.

Therefore, I think RIM's commitment to the United States is serious. It is obviously a very important market for us. I think, in a lot of ways, the open and friendly relationship between the United States and Canada has enabled and facilitated our company to grow on both sides of that border.

We have had a very exciting year in spite of a very difficult financial climate. One of the bright spots in the economic world is the mobile space. I just got back from the CTIA, the Wireless Association show in Las Vegas, and some of the numbers were astounding, including texting in the trillions of messages per year, which is a phenomenal number.

We recently shipped our fifty-millionth device, and there are now twenty-five million BlackBerry users worldwide. We had an exciting launch

14 See Research In Motion, supra note 4.
15 See id. (noting RIM's offices in North America).
17 See John Pletz & Thomas Corfman, RIM Fishes in Moto's Talent Pool, 31 CRAIN'S CHI. BUS. (July 21, 2008).
18 See id.
19 See Press Release, Research in Motion, Research In Motion Reports Fourth Quarter and Fiscal 2002 Year-end Results (Apr. 9, 2009), http://press.rim.com/release.jsp?id=474 (noting RIM has offices in Canada, the United States, and Europe as early as 2002).
23 See generally Press Release, CTIA, CTIA – The Wireless Association Announces Semi-Annual Wireless Industry Survey Results, (Apr. 1, 2009) ("According to the survey, text messaging continues to be enormously popular, with more than one trillion text messages carried on carriers' networks in 2008 . . . almost triple the number from 2007.").
24 See Research in Motion, 2009 ANNUAL REPORT 8 (2009) [hereinafter RIM 2009
just this week of the App World, which is a consumer application store that sits on your BlackBerry device.\textsuperscript{26}

One of the things we are seeing is a shift in our product mix from not just serving enterprise users, but to serving consumers as well, who are most of our new customers.\textsuperscript{27} Our new sales are in the consumer space, not in the enterprise space.\textsuperscript{28} We are also seeing a third of our sales taking place outside of North America.\textsuperscript{29} I think in many ways, what is happening at RIM represents a tremendous success story for North America and for both Canada and the United States. We are optimistic to see that continue in spite of the difficult economic climate.

I wanted to talk today about some of the policy drivers that are driving innovation. In my background, as someone who works in the United States policy arena,\textsuperscript{30} one of the things that we are seeing from the United States side of the border is some interesting, and I think, positive changes that are making the United States a more hospitable climate for innovation.\textsuperscript{31}

One of the things that we saw recently was the passage, finally, of a stimulus package in the latest budget that came out of the Congress and was signed by the White House.\textsuperscript{32} The stimulus bill resulted in some positive changes; things that companies in the high-tech space and folks that care about innovation have been eager to see for quite some time.\textsuperscript{33}

\begin{footnotesize}
\footnotetext{25}{See id.}
\footnotetext{27}{See RIM 2009 ANNUAL REPORT, supra note 24.}
\footnotetext{28}{See id. at 8 (“Successful penetration of new market segments with approximately 60% of net subscriber account additions in fiscal 2009 coming from non-enterprise customers.”).}
\footnotetext{29}{Id. at 86.}
\footnotetext{30}{See Biography of Praveen Goyal, supra note 3 (explaining that Mr. Goyal served as counsel within the FCC and U.S. Congress).}
\footnotetext{32}{See Omnibus Appropriations Act, Pub L. No. 111-8, 123 Stat. 524 (2009).}
\end{footnotesize}
We saw some good news on the R&D funding side. I just saw an analysis by the American Association for the Advancement of Science showing that R&D funding will rise by 6.8 billion dollars in the United States, 4.7 percent over 2008.\(^\text{34}\) That is the first time that non-defense R&D funding has risen in comparison to inflation in several years.\(^\text{35}\)

Finally, we see implementation of commitments that the Congress made in the America Competes Act.\(^\text{36}\) It is obviously important in the high-tech space for basic scientific research to be funded and to be enabled by funding through government grants.\(^\text{37}\) We finally saw that the budgets for the National Science Foundation (NSF), the Department of Energy, the Office of Science, the Commerce Departments, and National Institute of Standards and Technology were on track to double in a decade,\(^\text{38}\) which was the commitment that Congress made in the America Competes Act.\(^\text{39}\) So it was gratifying to see that finally happen. We have been operating under a continuing resolution until this latest budget that kept funding levels at the same level they were in the prior budget.\(^\text{40}\) One of the things that was held up as a result was that increased funding for R&D investments.\(^\text{41}\)

As a result of that increased R&D spending, we are hopeful to see a more hospitable climate in the United States for more innovation,\(^\text{42}\) and for us to hire more of our R&D employees in the United States, as well as Canada and everywhere we do business.\(^\text{43}\)

\(^{39}\) See SARGENT, supra note 36 at Summary.
\(^{41}\) See SARGENT, supra note 36, at 2.
\(^{42}\) See Wulf, supra note 37 ("Federal funding also has been instrumental in creating the human resources that drive the innovation process.").
\(^{43}\) See Dave Friend, BlackBerry Maker Research In Motion Leads Charge in Wave of Tech Sector Hires, THE CANADIAN PRESS (Mar. 11, 2009), available at
We also saw improvements in stem education, science technology, engineering, and math education as part of the stimulus bill. As part of $3 billion of additional funding for the NSF, about $100 million is funding for two programs: a teacher scholarship program and a math and science partnership program. Included in the $140 billion of funding for the Department of Education is funding to modernize, renovate, and repair science and engineering laboratory facilities through local education agencies.

An increased commitment to training the best and the brightest in math and science in kindergarten through twelfth grade is an incredibly important facet of training the next generation of high-tech workers. These are things that we have been hoping for quite some time. There was recent Organization for Economic Co-Operation and Development numbers showing that United States high school students ranked twenty-fourth out of twenty-ninth among industrialized nations in math, while Canada ranks fifth by comparison. Canada ranked near the top for science and reading performance, while United States high school students fell somewhere near the middle. So I think one of the ways that we are going to be able to turn that around on the United States side of the border is through increased initiatives to fund science, technology, engineering, and math education.

There are a couple of other bright spots that I want to talk about. There was funding for health care Information Technology (IT), which is an area that an increasing number of health care providers and high-tech companies are looking at closely. We have a number of customers that are using BlackBerry handheld devices to pull up patient records, to do e-prescriptions, and to look at real-time electrocardiograms in readouts in a hospital. I think


See SARGENT, supra note 36, at 4.

See Richard M. Jones, Education and Human Resources Recovery Funding: $100 Million, FYI: THE AIP BULLETIN OF SCIENCE POLICY NEWS, Jan. 2003, http://www.aip.org/fyi/2009/007.html (“$100 million is provided for Education and Human Resources at the NSF. Within this amount, $60 million is provided for the Robert Noyce Teacher Scholarship program and $40 million for Math and Science Partnerships.”).

See SARGENT, supra note 36, at 2.


See Omnibus Appropriations Act, supra note 32, at II § 219.

deeper penetration of IT infrastructure in the health care environment will happen over the next several years. It reduces patient errors, increases the quality of care, and allows patients to take their information with them to various health care providers.52

There is twenty billion dollars in the stimulus package for health IT infrastructure,53 and there is going to be an implementation process now through the Department of Health and Human Services to develop standards around that.54 So that is another area where I think the United States is moving forward in a pro-competitive, innovative way.

One last piece on the stimulus funding: There was about seven billion dollars allocated towards the build out of broadband networks,55 and that is also going to be something that we look at to stimulate more broadband, including more wireless broadband in unserved and underserved areas, both in urban areas and rural areas, through the Rural Utilities Service loan program.56

Now that is all the good news about the stimulus package. One of the things we are obviously concerned about was the addition of the Buy America Act provisions to the stimulus,57 and there is still going to be some implementation that comes through Office of Management and Budget (OMB) to further flush out what that looks like.58 I think for a lot of the innovation components of the stimulus package; the hope is that those will not present an obstacle. We are looking at this closely because in many ways, especially when you are talking about the IT space, much of what was contemplated by the stimulus package simply cannot be done if those provisions are applied in a Draconian way.59 So that is the good news, I think, on the innovation front.


56 See Omnibus Appropriations Act, supra note 32, at III.

57 See id. at VI § 607.

58 See id. at XVII.

59 See Jane Sisk & Sherry Glied, Innovation Under Federal Health Care Reform,
There are some things that are still a significant challenge in the United States, and that make it difficult for a company like RIM to grow and prosper. I am going to talk about a couple. One that is sort of near and dear to my heart is the issue of patents. Patents are obviously an incredibly important part of the economy and an incredibly important way to stimulate new technologies and innovation. One of the things that we are seeing on the United States side of the border is a growing abusive use of the patent system. RIM suffered a terrible fate at the hands of the United States patent system not too long ago through a lawsuit that was brought by a company called NTP, Inc. Ultimately, we had to settle that suit in excess of $600 million for patents that have been finally rejected by the United States Patent and Trademark Office. It just goes to show that there is something wrong with a system where you can leverage invalid patents to extract a settlement on the order of hundreds of millions of dollars from a company that makes products that are popular and innovative, and then that money is transferred to a company that is a non-practicing entity, or what I like to refer affectionately to as a "patent troll."

What we are seeing on the United States side in patents is the number of patent filings dramatically increasing, and non-practicing entities filing 88 percent of the infringement suits against high-tech companies. That is over the last five years. Suits against the technology companies are up seventy

---


See McCurdy, supra note 62, at 78.

See id. at 79.

See COALITION FOR PATENT FAIRNESS, CLARIFICATION OF THE “REASONABLE ROYALTY” STANDARD IS ESSENTIAL TO UNLEASH INNOVATION AND PROMOTE ECONOMIC GROWTH 5, http://patentfairness.org/pdf/whitepapers/Damages_FINAL.pdf (“A survey of royalty requests and patent litigation against technology companies found a 650% increase in requests and a 70% increase in litigation, with 88% of the total coming from NPEs.”).

See McCurdy, supra note 65, at 79.
percent, and claims for licensing fees are up 650 percent. The number of defendants sued annually has nearly doubled in the past seven years, even though the number of lawsuits has not changed dramatically, which shows that the patent trolls are targeting a wider array of alleged infringers in their suits. That all results in resources that could be invested in R&D and in new products like the four new platforms that we announced in the last year, but instead are going to reward non-innovative activity.

We are hopeful that there will be reform of the patent laws soon so we do not have to suffer a similar fate again, but it is a tremendous challenge and one that I think needs to be watched closely. I have all kinds of facts and figures in front of me, but there is one particular example that struck me was an example of the recognition that something is wrong that needs to be fixed. There was a quote from the Patent Commissioner, John Doll, who is now the acting Director of the Patent and Trademark Office, saying when you have 1.3 million cases in backlog and it is taking four to six years to take first-office action, you should ask the question, "Is the patent system actually still working, or are we just stamping numbers on the applications as they come through?" I think that quote sort of sums up one of the challenges that we have on the United States side in promoting innovation and in promoting the growth of a company like RIM.

Another area where I think we are seeing some stark policy differences that could be a challenge for high technology and for innovation in the United States in years to come is the issue of tax credits for R&D. I think there is an interesting contrast between how those tax credits are administered and applied across the border. Now, there is good news on this front.

Last year, Congress once again renewed the United States R&D tax credit, but Congress has still never made that tax credit permanent. So this is a process where in order for companies to make the necessary investments in R&D and derive the benefit of the R&D tax credit, companies have to wait and see what comes out of the appropriations process every Congress, and hope Congress decides to appropriate enough money to fund an R&D tax credit.

69 See Coalition for Patent Fairness, supra note 67.
70 See id.
71 See id. at 4.
72 See id.
73 See RESEARCH IN MOTION, supra note 24, at 10.
77 See id.
Canada, by contrast, does it very differently. Canada administers a twenty percent flat tax across the board through the tax system so that it is not subject to appropriations. See Gov't of Can., Do Your Research and Development in Canada... It Pays Off!, (Sept. 5, 2008), available at http://investincanada.gc.ca/download/142.pdf. I looked at a great paper that the government of Canada issued that actually advertises their tax credit as a way of attracting innovation and R&D into Canada. This is one of the things they advertise, and I think the implicit point is that unlike the United States system, which depends upon appropriations to fund R&D tax credits, Canada does not and simply does it directly through the tax system. See id. So I think that is one area where in order for the United States to remain as competitive, we will need to see some reforms to make the credit permanent and also to increase the amount of credit that is available under some provisions of that law.

The ultimate gist of my message is that there is good news and bad news. I think there are many positive things happening on the United States side of border to stimulate innovation and the growth of companies like RIM. That is fine, but there is still room for improvement, and we are hopeful to see that improvement take place in the years to come. Thank you very much.

CANADIAN SPEAKER

Catherine A. Pawluch

MS. PAWLUCH: Thank you very much, Praveen.

I am now going to take a few minutes and share with you some observations that I have on this topic, and they come in a context. As I mentioned earlier, I am with Gowling, one of the oldest and largest firms in Canada, but most importantly, it has traditionally been an intellectual property (IP) and information technology (IT) firm long before it became fashionable to be involved in IP law. So we have an extensive practice in protecting IP rights, whether it is in the biotech area, the Pharma area, clean tech, as well as some of the traditional areas of law, such as manufacturing, aviation, and transportation, which also give rise to IP protection issues. It is with that background that I make these observations.

I think there is little doubt or argument that there is a significant global and economic transformation going on as we collectively move from an industrial society, where people produce things, to a knowledge society based on human activity and ideas.
Those of you who are from Ontario will know that our Premiere, Dalton McGuinty, recently commissioned a study, which Roger Martin and Richard Florida conducted, both of whom are professors at the Martin Prosperity Institute, which is affiliated with Rotman School of Management at the University of Toronto. The report, which was issued a short while ago, is titled “Ontario in the Creative Age.” Professors Martin and Florida argued that it is critical for Ontario and Canada to invest in its people, in our institutions, and in our infrastructure if we are to prosper in this new knowledge society.

They actually went further and identified three broad sets of skills that play an important role in our economy. The first set of skills is physical skills. Just as the name suggests, lifting things and manual dexterity. The second set of skills they identified were analytical skills, such as developing and applying rules and methods to solving problems. The third set of skills they called social intelligence skills, such as the ability to assess the needs and perspectives of others.

They examined various occupations, professionals, trades, service providers, and they put them into a matrix and made findings with respect to the skill level required to perform the job. So, for example, lawyers. Martin and Florida found that lawyers need neither the physical skill nor surprisingly analytical skills, which you would have thought are key to practicing law. However, these were not the most significant for lawyers. What they found was the most highly valued and important skill for lawyers are those within the social intelligence category, such as being able to assess the needs and perspectives of others, not just your client but the party on the other side, whether it be either in a litigation or transactional matter. These are all part of the social intelligence skills.

---

86 See ROGER L. MARTIN & RICHARD FLORIDA, ONTARIO IN THE CREATIVE AGE, iv-v (Martin Prosperity Institute 2009).
87 See id.
88 See id.
89 See generally id.
90 See id. at i.
91 See id. at 1.
92 See id. at 12.
93 See id.
94 See id.
95 See id.
96 See id. at 13.
97 See id. at 5, 12-13.
98 See id. at 13.
99 See id. at 5.
100 See id.
So what does all that mean to today's discussion? Well, the report concluded and spoke loudly to the critical role that education and universities must play in creating the human capital that is necessary to bring our society and our economy forward based on brains rather than toil and physical skills.101

Innovation and entrepreneurship are the hallmarks of a knowledge society.102 So where do Canadian businesses currently stand? Well, we have all had the pleasure today of hearing from two of Canada's superstars, RIM, and earlier this morning, Bombardier. They really are the leading lights, not just in Canada but on the international stage.103 That said, there are indications that our economy is actually falling behind on key performance measures.104 Canada's prosperity depends on competitiveness of Canadian companies,105 and that turns on the ability to innovate, invent, develop, and sell high value products and services.106

Using some of the benchmark indicators, such as the number of patents per capita filed and the number of successful commercializations of new ideas in Canada, Canada is lagging behind not only the United States, but behind the average amongst advanced nations.107 This was found in a report by McKinsey & Company.108

They identified three conditions that are really prerequisites, if you will, to spurring successful innovation.109 Number one: access to capital.110 Number two: collaboration in pursuit of new ideas.111 Number three: a culture that promotes entrepreneurialism.112 It is not just a matter for govern-

101 See id. at 32.
105 See id.
106 See id. at 1, 2, 16.
107 See id. at 25.
108 Id. at i.
109 See id. at 29.
110 See id.
111 See id. at 31.
112 See id. at 34.
ments alone to take this on or to take the lead here. Both the public and the private sectors must make efforts to create the right conditions for innovation.

So how does Canada fare on these three points? Well, access to capital. We have seen major amendments to our foreign investment laws, which came into effect several weeks ago. They are intended to encourage foreign direct investment.

Number two: collaborations in pursuit of new ideas. The idea here is to create more incentives and make it easier for public-private partnerships to be established. We heard from Praveen, Canada has the tax credit, the flat twenty percent, which is a good thing. Certainly, the federal government through its science and technology incentive programs provides funding, but the industry sector leaders say that these do not go far enough.

The third important prerequisite or condition: how do you instill a culture of competitiveness that promotes the entrepreneurial spirit? Well, on this one, we can surely take a lesson from the United States. The Economist just two weeks ago featured an excellent report, which contains about twenty pages on entrepreneurship. The report was entitled Global Heroes in the View of The Economist. The report states:

"The world's greatest producer of entrepreneurs continues to be America. The lights may have gone out on Wall Street, but Silicon Valley continues to burn bright. High flyers from around the world still flock to America's universities and clamor to work for Google and Microsoft, and many of them return home and spread the gospel."

The report goes on to say that entrepreneurship thrives and is really driven by profound technological change. Today we have the confluence of three significant innovations or inventions: the personal computer, the mobile

---

114 See id.
115 See Gov't of Can., supra note 78.
118 See id.
119 See id. at 1.
120 See id. at 4.
phone, and the Internet. Taken together, these three significant inventions have had the effect of democratizing entrepreneurship at a tremendous pace. So it makes it possible for entrepreneurship to really flourish and thrive.

The report goes on to say that the United States remains a beam for entrepreneurialism. It has the entrepreneurial spirit that is deeply rooted in this country's history. It was founded and settled by innovators and risk takers, which is really at the heart of entrepreneurship. It also talked about the United States being the world's most mature venture capital industry, which is a real structural advantage. However, most impressive, the tradition of close relationships between universities and industry provides business incubators, science parks, technology offices, and venture funds. I can certainly say that the close relationship between Waterloo University and the technical industry partially spawned the success of RIM since graduates of the University of Waterloo founded RIM.

So in closing my brief remarks, the real question is: Can Canada be as innovative, as competitive, and as entrepreneurial as the United States? I think the best place to find the answer to that question is in a compilation of essays, American Myths: What Canadians Think They Know about the United States.

The question that I posed is answered by one of the essayists, Jessica LeCroy, who is with us at the conference, and we will have the pleasure of hearing from her this evening at the evening's proceedings.

I would like to introduce our next speaker, Bob Williams. Bob is the President of Global Health Services at Cleveland Clinic (Clinic). He is responsible for advancing the international footprint of the Clinic around the world. Currently, the Clinic provides services to more than 2,500 patients from outside the United States from more than a hundred countries, and

---

121 See id.
122 See id. at 6.
123 See id.
124 See id.
125 See id.
126 See id. at 7.
128 See generally RUDYARD GRIFFITHS, AMERICAN MYTHS: WHAT CANADIANS THINK THEY KNOW ABOUT THE UNITED STATES (Key Porter Books May 1, 2008).
there are plans to expand that even further in the next few years as technological advances at the Clinic allow for a broader global presence. \(^{132}\)

Bob has over thirty-five years experience in health care. International health care is a particular passion of his, and he has been doing that for ten years. He was most recently the President of the United Health Care International, where he was responsible for developing and implementing the overseas strategy for United Health Group, which is a seventy billion dollar diversified health care company. \(^{133}\)

Please join me in welcoming Bob Williams.

**UNITED STATES SPEAKER**

*Bob Williams*

MR. WILLIAMS: I think the Canadians here would appreciate that if there is anything worse than what a Canadian thinks they know about the United States, it is what those in the United States think they know about Canada.

I am the President of Global Health Services, \(^{134}\) also responsible for our operation in Canada, \(^{135}\) and I will admit that as we opened up in Canada, we realized that we made a classic United States mistake of thinking that we understood Canada and exactly what we should do in setting up our operation in Canada. What we learned is that we do not really know about Canadians. So one of the things that we have been trying to do with our international operation, and Cleveland Clinic Canada is a great example, is trying to be in a country, and really understand what drives that country, and then year thousands of patients come to Cleveland Clinic from around the world**).\(^{132}\)


\(^{134}\) See Cleveland Clinic, Robert Williams, supra note 130.

blend because I am a huge believer that you have to blend cultures. We can both learn so much from each other. In the last year, as I have been going back and forth between Cleveland and Toronto, I have been excited to not only learn about the various differences, but to learn how irritated Canadians are by those of us who show up and think that we are going to show them what to do.

Let me talk to you a little bit about Cleveland Clinic (Clinic). The Clinic was started in 1919 by four physicians who worked together in World War I, who found that they could be far more effective in collaboration in dealing with health care issues than as individuals. They started the Clinic really on that premise. All of our physicians are, literally, salary employees of the Clinic. More importantly, the culture at the Clinic is all about collaboration. As Catherine said, I have been in health care thirty-five years. I think it is the most complicated industry in the world. You have everything working against you in terms of trying to have a cost-effective, high-quality system. I do not care if it is Canada, the United States, the Middle East, or India, it is a very complicated process, and so I think collaboration is part of the answer, and the Clinic is noted for that approach.

The second piece of that is that collaboration does create a culture of innovation. I came from an insurance company that had a lot of innovation, and I thought I had seen a lot of innovative people until I got to the Clinic. The Clinic has 1,800 physicians, and the physicians are literally encouraged to, in effect, invent things as they are trying to figure out what is the best way to cure any given issue. I cannot give you the stats about the

136 See generally Gerald Apfelthaler et al., Corporate Global Culture as a Competitive Advantage: Learning from Germany and Japan in Alabama and Austria? Multinational Companies can Capitalize on Cultural Differences to Compete, 2002 J. WORLD Bus. 108, (2002) (noting how companies successfully operated in foreign countries by blending culture).
139 See Cleveland Clinic, Cleveland Clinic Overview, http://my.clevelandclinic.org/about/default.aspx (last visited Oct. 8, 2009).
142 See Cleveland Clinic, Research and Innovation, supra note 140.
144 See Cleveland Clinic, Cleveland Clinic Overview, supra note 139.
number of patents that have been generated by the Clinic, but it is a remarkable culture that really encourages and fosters that innovation. As these cultures tend to feed on themselves, we end up attracting innovative physicians, who are attracted by the idea of trying to operate in that culture. So really, innovation feeds innovation and the culture feeds from that innovation.

We have an organization called the Innovation Center that literally does nothing but take the ideas that are generated by the physicians and, in effect, looks to see whether they should be patented and work with venture capitalists and actually create companies. So many of those companies have been spun out separately from the organization. We have an innovation summit that is done every fall. It is geared towards this culture of trying to get innovative people together over two or three days to talk specifically about innovations. Again, all on the health care side. As part of the process, we publish this brochure of the top ten medical innovations. Each year, we have a panel that surveys all the innovations and tries to decide which are worthy of being in the top ten.

One of my favorites, number nine, is the Doppler-Guided Uterine Artery Occlusion. I am not too familiar with all of these things. Number eight is Integration of Diffusion Tensor Imaging. The only one that I know of for sure, which is fascinating, is the Warm Organ Perfusion Device. It is about trying to keep hearts warm for a transplant process. Heart transplants are one of the most challenging things to perform. What is the biggest issue besides obviously skill of the surgeon? It is the quality of the

---

150 See id.
151 See id.
153 See id. at 1.
154 See id. at 7.
155 See id. at 9.
156 See id. at 21.
157 See id.
heart. We freeze them before we transport them in trying to put them into an individual. This thing, literally, is a little oven that keeps the heart alive because, in this device, the heart is pumping. In effect, they keep the heart going in a mobile way so it can then be transplanted into someone.

Now, I do not want to mislead you. The Clinic did not invent that, nor did our physicians come up with that. It is that we are proudly part of a process that continually tries to foster that innovation. I think more importantly, the point that Catherine makes is the culture of innovation is a challenging one. Any given company, Research In Motion (RIM) is such a great example, but as you know, it is difficult to keep innovation going. The Clinic's done it for a number of years. There are many companies who are known for their innovation and then you do not hear about them because they were not able to keep that culture going.

So let me talk about Cleveland Clinic Canada what we do with respect to trying to bridge the gap between Canada and the United States. We opened up an operation called Cleveland Clinic Canada on Bay Street, which we used to proudly say was the Wall Street of Canada. In many ways, it is not the Wall Street of Canada, but we are on the 30th floor of Bay Street. Cleveland Clinic Canada is a health and wellness center focused on executive health because the health care system in Canada allows private health care as

159 See Bruno Gridelli & Giuseppe Remuzzi, Current Concepts: Strategies for Making More Organs Available for Transplantation, 2000 NEW ENG. J. MED. 404 (2002) (noting the quality, size, weight, and other factors prevent forty-five to fifty percent organ rejection by the first center to which they are offered).
160 See CLEVELAND CLINIC, supra note 152, at 21.
161 See id.
162 See id.
163 See id.
164 See id. at 1.
167 See Cleveland Clinic, Innovations at the Cleveland Clinic, supra note 152 (“Cleveland Clinic's heritage of innovation expresses itself in many ways today - more than 200 new inventions per year, new interdisciplinary approaches to diseases and path-breaking clinical insights that help shape the standard of care.”).
long as it is this little niche called preventive diagnostics.\textsuperscript{171} So the Canadian Government allows us to operate in the field of preventive diagnostics,\textsuperscript{172} so that is what we have opened up.

What we really believe is that health care in Canada and elsewhere is something that we want to participate in and be in a constant presence. So while we offer executive health to Canadians, we also offer more broad-based health care services, such as family practice, to non-Canadians because we are allowed to do that without getting arrested by Ontario Health Insurance Plan (OHIP).\textsuperscript{173}

Then we also are unabashed about the fact that we are there as a pathway for Canadians who want to access health care in the United States, and so we try to do those three things. I can honestly say that as we look at it, it is sort of a balance. It is not that we just want Canadians to come to the United States and escape the health care system in Canada, nor do we see that we just want to be, if you will, a health care company in Canada.\textsuperscript{174} So that is the general business model.

Now, in keeping with the spirit of bridging this gap of innovation, we want to try to get Canadians to come to the United States where it is appropriate for treatment.\textsuperscript{175} In order to do this we have a couple of technological tools, one very simple one, one I think a little science fiction, to try to emulate feeling of the physical Cleveland Clinic Cleveland presence, in Canada. One of those things is called “My Consult,” and it is simply using the Internet to try to get a second opinion for Canadians who want to try to get a second opinion.\textsuperscript{176} We basically have a process where you could put all of your medical records in effect over the Internet, and it comes here to Cleve-

\textsuperscript{171} See Robert Steinbrook, \textit{Private Health Care in Canada}, 2006 New. Eng. J Med. 354 (2006) ("Private insurance and private care are also common in niche areas . . . may include private delivery of publicly financed core services, such as elective operations and imaging studies.").

\textsuperscript{172} See Cleveland Clinic Canada, Extensive Health Solutions, http://www.clevelandcliniccanada.com/hsp/ehs.html (last visited Oct. 31, 2009) ("Our world-renowned medical consultants lead a multidisciplinary team of preventive and wellness specialists to provide individualized treatment to optimize every patient's well-being and exemplify the ideal of advanced patient care.").

\textsuperscript{173} See Cleveland Clinic Canada, In Toronto, http://www.clevelandcliniccanada.com/locations/toronto.html (last visited Oct. 31, 2009) ("So whether you are in Canada as a traveler, expatriate, short-term visitor or short-term resident, or if you are for any other reason not covered by provincial health programs, Cleveland Clinic Canada can provide you with personalized care, when you need it.").

\textsuperscript{174} See Cleveland Clinic Canada, Home, \textit{supra} note 177.


land, and a world-class surgeon gives you a second opinion by going through the records. That is one thing that we do is try to have Canadians try to understand the value that we provide as a second opinion.

The second, which is really fascinating, is something called “Virtual Visit.” We have the technology where someone can have a virtual visit with a surgeon here in Cleveland. It is basically a combination of video technology, Internet technology, and sound technology. You hook up the person in Canada to this machine, and it flows through to Cleveland so that the cardiologist can listen to the person's heart. Our CEO, Toby Cosgrove, says it is better than the stethoscope because there is a mixer, so you can even kind of play with it and of course he is a little mad scientist himself, so he loves the fact that you can modify the highs and lows and get the best sound to hear that heart. So here, you have someone in Toronto and someone in Cleveland, in effect, a classic case of using technology to bridge the gap.

Now, no secret of fact that we want that person to say, “Wow, that is really cool, I want to go to Cleveland.” In some cases that happens, but in many cases that is not the right answer. All they are doing is accessing some of the brilliant minds here and then getting the care in Canada. Obviously, for many reasons that is the best approach. Most any cases you are better off getting care in your local community rather than traveling.

One last comment that I would make: a nice example to talk about the whole regulation issue, as well as the innovation issue, is gastric bypasses. Well, it is a tummy tuck. Gastric bypass is about much more than just someone who wants to have a surgery, get their stomach, in effect, a bypass so that they close down the stomach to lose weight so that they look better. In fact, obesity is a huge health issue. It creates diabetes issues. It ob-

\[\text{See Cleveland Clinic, MyConsult, http://my.clevelandclinic.org/eclevelandclinic/mychart/second_opinion/default.aspx (last visited Oct. 17, 2009).} \]

\[\text{See Cleveland Clinic, Cleveland Clinic Celebrates a Successful Arab Health 2007, HEALTHADVANTAGE, June 2007, at 1, available at http://my.clevelandclinic.org/Documents/Global_Patient_Services/HealthAdvantage_winter06.pdf.} \]

\[\text{See generally id.} \]

\[\text{See id.} \]

\[\text{See generally id. ("This new teleconsultation service will allow real-time patient examinations using interactive live video technology...".)} \]

\[\text{See generally id.} \]

\[\text{See generally Cleveland Clinic, supra note 185 (explaining how the process generally works).} \]

\[\text{See Kerrie Howze, Medical Tourism: Symptom or Cure?, 41 GA. L. REV. 1013, 1026 (2007).} \]

\[\text{See generally Mayo Clinic, Gastric Bypass Surgery, http://www.mayoclinic.com/health/gastric-bypass/MY00825/METHOD=print&DSECTION=all (last visited Oct. 17, 2009) (describing the gastric bypass procedure and why it is performed).} \]

\[\text{See Cleveland Clinic, Bariatric and Metabolic Institute, http://my.clevelandclinic.org/bariatric_surgery/default.aspx (last visited Oct. 17, 2009).} \]
viously leads to death simply from the fact that you are making your organs work with such difficulty. Interestingly, the Canadian health care system: ten percent of GDP, the United States health care system: sixteen percent of GDP. I have been in health care all my life; there is no question that both systems have problems. There is no way it is appropriate to strictly limit the amount of money you can spend on health care when people are getting older. When you want technology, you want people to spend money to try to find fancy drugs. So to limit it somewhat arbitrarily, if I can say, is not the right answer.

On the other hand, when you have unbridled capital as we have in the United States and no really management of supply and demand issues, you get sixteen percent of GDP spent on health care. So those who thought the Canadian system was the right answer obviously are now saying probably not. There are maybe a few egregious capitalists who think our system is the best, but most of us know our system is not the best either.

So you have this problem, and it comes together in a nice example I think in Canada because Canada has an obesity issue, nothing like the United

187 Id.

188 See generally Johanna T Dwyer, Medical Evaluation and Classification of Obesity, in OBESITY PATHOLOGY, PHYSIOLOGY, AND TREATMENT, 9, 11-13 (George L Blackburn and Beatrice Kanders, ed., 1994), available at http://books.google.com/books?id=HwLi5ZXGeMgC&pg=PP1&dq=obesity&lr=&as_brr=3#v=onepage&q=&f=false.


190 See id. (United States health care costs comprised sixteen percent of gross domestic product).


192 See James Lubitz et al., Health, Life Expectancy, and Health Care Spending among the Elderly, 349 NEW. ENG. J. MED. 1048, (2003) (charting the increase in money spent on health care as life expectancy grows).


States frankly. 198 So, Canada has an obesity issue and an incredible shortage of doctors doing gastric bypasses because the system has not really provided sort of the access to capital, the incentive, to meet this need. 199 Therefore, Canada in total, I think it is actually OHIP, sends out 1,600 gastric bypasses to the United States for treatment every year. 200 Again, this is not for cosmetic purposes, this is for the health of Canadians. 201

It is sort of being announced any day now, or has been, and we will be one of those preferred providers in which we will provide that service for Canadians 202 because Canada I think in its wisdom says “Okay, the health care system is not perfect, we want our people to have good health care, so gastric bypass is a good service to send to the United States if there are not enough providers of the procedure in the province, then there are not enough within Canada.” The wait time is like two or three years for this, and so we will provide a way for Canadians to get access to the procedure in the United States. 203

So it is a great example where the innovation in the States helps Canada try to, at least temporarily, solve that issue. The longer-term issue, obviously, is a lot more complicated, and it is not going to get solved in the lifetime of anybody here frankly. That is how we are trying to sort of participate in the Canadian health care system and sort of blend and effect some innovation along with our attempt to sort of understand the culture between Canada and the United States.

As I said, I have been in health care for over ten years, and ten years ago I visited Canada and I found that private health care was just around the corner, so I wrote all kinds of papers to my company and said we have got to get into Canada, private health care is going to take over. So, ten years later, I could almost write the same memo, although I would do it with great caution


200 Cf. id. at 233 (“The province of Ontario . . . sends more than 500 patients per year to the United states for this surgery.”).

201 See id. (“It is not surprising that prolonged waits of more than 5 years for bariatric surgery lead to deaths among patients on the waiting list, given the devastating obesity-associated diseases that afflict these patients.”).


203 See Christou & Efthimiou, supra note 199.
because we all know it is not going to happen in anywhere near the degree that I initially thought it was going to happen, ten years. Yet, twenty years ago my company in the United States wrote a paper about how we had to get out of group health insurance because the government was going to take over private health care in the states and was all going to be a single-payer system, and they wanted to get out of the business. Twenty years later, of course, that did not happen either.

I am a big believer in public-private. I think OHIP can learn from us, and I think we can learn from OHIP. I am really passionate about that. I have enjoyed understanding some of the beauty of the Canadian health care system. I am fascinated when you talk to a Canadian, you will get people who just look at you and say, "I hate this health care system," and then you will get people who say, "I love this health care system." "It is the same health care for everyone; we do not have that class warfare that you have in the States." To me it is just fascinating. It again speaks to how complicated health care is, and innovation and regulation are just small pieces of the issue. I do not know where it is going to go other than I think you will get a collision of public-private. I think Canada does need to learn from the States in terms of trying to find some way to foster more innovation in health care. However, I think we have forty to fifty million uninsured that our president is determined to do something about the way Canada has, and I hope that he does.

I am not here to give you an answer other than to say that let us both listen to each other, which is the whole purpose of this conference. So I hope that you continue to have these sorts of conferences and we continue to learn. I will continue to enjoy going back and forth to Toronto, which I think is a fantastic city. I think you want to open it up for questions for a little bit. Thank you.

204 See generally 42 U.S.C. § 1395dd (1986) (The Emergency Medical Treatment and Active Labor Act mandated hospitals to provide emergency medical treatment to anyone in the United States, regardless of ability to pay).
205 See Mark Shuster et al., How Good is the Quality of the Health Care in the United States?, 83 MILBANK Q. 843, 889 (2005) (the private sector has been a driving force in the organization and financing of health services delivery).
DISCUSSION FOLLOWING THE REMARKS OF PRAVEEN GOYAL, CATHERINE A. PAWLUCH, AND BOB WILLIAMS

MS. PAWLUCH: Are there any questions? Yes.

MR. ULRICH: My question is actually addressed to both. In terms of Research In Motion (RIM), what have you done? You are really, I think, espousing entrepreneurship where you do a merger and acquisition and collaborating financially of the new idea of the spark of genius. Or do you endanger internally entrepreneurship; you go to that, your mantra of the culture of innovation?

The corollary to that is what Bob suggested, the 1,800 positions of providing input through your Innovation Center out of 11,000 or so employees. Is that extended beyond the positions to technicians all the way to the nursing staffs, et cetera? I would be curious to say, I think that is great, but does it go further? Then what does RIM do to internalize that from a marketing side and from the engineering side, even from your other divisions within the corporation?

MR. GOYAL: If I understood the question correctly, the question was the extent to which we foster innovation and entrepreneurship, whether internally or through finding ideas and finding products and companies outside and then making them a part of our platform, and I think the answer is both. One of the things that is remarkable to me about RIM is that we spend about six percent of our operating revenue on R&D, and that is pretty remarkable. I would say, over the history of the company, one of the things I have noticed is there is a strong emphasis on R&D investment and on continuing to engage in R&D investment. If memory serves me correctly, we have doubled our expenditures on R&D year over year. That is in a very difficult financial climate. I mean, this is an environment in which many companies are contracting. In spite of that, we are reinvesting in innovation and reinvesting in R&D, by hiring new high-skilled science and engineering graduates to engage and further R&D, and by building new R&D facilities like the ones we developed here in the United States.

---

208 See Research in Motion, supra note 24, at 9 (RIM spent 6.2% of its operating revenue on R&D in 2008).
210 See RESEARCH IN MOTION, supra note 24, at 18.
211 See GoogleFinance, supra note 20.
212 See Friend, supra note 43 (noting the rising unemployment rate and downsizing at several companies).
213 See RESEARCH IN MOTION, supra note 24, at 30.
214 See Research in Motion, Co-ops and Interns in Action, http://www.rim.com/careers/students/coop_intern/inaction.shtml (last visited Oct. 17, 2009); Research in Motion, RIM...
In terms of whether that is done internally versus whether it is done through acquisitions, I think the answer is a little bit of both. I mean, there are certainly great ideas and great products out there where we have seen opportunities to do business with them, in some cases to buy them and make them a part of our product. There is a great American company called Ascendent that we acquired that is now enabling us to take the mobile data platform and leverage it into the voice space so that you have an integrated voice and data platform in your enterprise that is operating over the Open Interface Platform and over Wi-Fi. It is a great cost savings for a business, it is a great way to basically take a PC-like functionality on your handheld, mobile device and turn that into your desk phone and get that same level of functionality in your internal corporate private branch exchange system. So that is one example of a great product that made a lot of sense for us to make a part of our platform and we went ahead and did so.

There is another recent acquisition that we just completed of a company called Certicom, a Canadian company that makes very advanced encryption algorithms, we have done business with them for a long time, and we decided that it made sense to make them a part of our company and further integrate that product into ours.

I think the answer is, it happens both ways, but I would say that the overarching answer is the level of commitment both in terms of hiring people and in terms of financial commitment to R&D and to investing in innovation that a company brings to bear. I think in RIM's case that emphasis has always been very high.

One additional point I will make: One of the things that is unique about the RIM experience, is that our co-CEOs, our founder, Mike Lazaridis, and his co-CEO, Jim Balsillie, have always made it a high priority to foster innovation not only within the company but also outside the company.

New Grad Hiring Program, http://www.rim.com/careers/students/new_grads/hiring_program.shtml (last visited Oct. 17, 2009); see also Research in Motion, supra note 24, at 30 (noting research and development consist primarily of salaries and benefits for technical personnel, new product development costs, travel, office and related infrastructure costs and recruiting).

See Pletz & Corfinan, supra note 17.


See id.


See Research in Motion, supra note 127.

See id.
through their support of non-profit institutions.\textsuperscript{221} So one of the things that has been really exciting about what is happening in Waterloo is not only the growth of the University of Waterloo as an engine for that kind of innovation,\textsuperscript{222} but also the institutes that have now been founded around the University, like the Institute for Quantum Computing, which as its name suggests, does a lot of research work in the area of quantum computing, kind of a next generation of computing once we run out of room to put resistors on silicon chips.\textsuperscript{223} Also, Perimeter Institute, which is doing a lot of very advanced work in the area of theoretical physics.\textsuperscript{224} Again, the kinds of basic research from which commercial products are going to eventually come down the road. So I think a lot of that comes from the culture of the company and its leadership, and all of those areas, those are clearly very strong priorities for RIM.

MR. WILLIAMS: At the Clinic, of course, it is, I would say literally, 100 percent entrepreneurial because we are non-profit.\textsuperscript{225} We really do not have that much access to capital other than what we generate, so it really has to entrepreneurial. It is primarily the physicians, although the culture does create some interesting dynamics where you have people in effect trying to also invent things. However, if you think about the business we are in is medical care, and in fact, physicians really are scientists. Some of them by their own definition are mad scientists, if you will. So they are the scientists of our organization, and so they are always the ones really driving the innovation.

We have a dashboard, which in effect tries to track everything that is going on in the hospital, so that was really done strictly on the IT side by non-physicians.\textsuperscript{226} So it is a little bit of a blend, but heavily physician-led and driven, and totally entrepreneurial, like nothing I have ever seen again.

MR. KNAPP: Question for Mr. Williams. I was particularly interested to hear you talk about how collaboration was a part of the organization from the very beginning. I know it is wonderful once you have it in the culture, and generally it can

\textsuperscript{221} See id.
\textsuperscript{224} See Perimeter Institute for Theoretical Physics, About PI Overview, http://www.perimeterinstitute.ca/About/General/About_PI_Overview/ (last visited Oct 17, 2009).
\textsuperscript{225} See Cleveland Clinic, supra note 139.
keep itself going. However, the mechanics, did the heart guys have coffee every Friday morning and kick ideas around, or kidney guys cocktails in the afternoon? What do you do to perpetuate the collaboration?

MR. WILLIAMS: Not that, I would say. First, I have only been there for about a year, so I can only reflect as sort of a newcomer observing it. Primarily, it is such a shared value. So it is almost a violation, if you will, of that corporate culture to have superstars, even though some of our physicians are sort of well-known, but they are really sort of discouraged from being individuals.\footnote{See generally Cleveland Clinic, Our Mission and History, http://my.clevelandclinic.org/about/overview/mission_history.aspx (last visited Nov. 13, 2009) (discussing the Cleveland Clinic’s commitment to collaboration among its physicians).}

Second, frankly, there is a financial side to it. I mean, every one of our physicians has a one-year contract that is up for renewal at the end of each year.\footnote{See Cleveland Clinic, President Obama Visits Cleveland Clinic, http://my.clevelandclinic.org/news/2009/president_obama_visits_cleveland_clinic.aspx (last visited Nov. 13, 2009).} We do not have bonus programs per se.\footnote{See id.} I mean, ironically, you do not really have incentives to be an individual superstar. The incentive is for the organization to do well. So not surprisingly, money does play a role. From that standpoint, it is sort of the right direction. I think in terms of meetings, it was interesting because we had a woman from China who chose us to perform an operation on her breast cancer. She said the contrast between the Chinese physicians, each of whom when she met with them, each of them had their own sort of specific idea about what the answer was, and when she went to the Clinic, a physician did not say, here is the answer. It was literally they came up, sort of, with a group conclusion, and so that the process itself is built around group think. It is really remarkable.

MS. PAWLUCH: I want to thank both of our speakers. It was a really interesting contrast to hear the perspectives from the different sectors. Please join me in thanking our speakers this afternoon.

\footnote{See generally Cleveland Clinic, Our Mission and History, http://my.clevelandclinic.org/about/overview/mission_history.aspx (last visited Nov. 13, 2009) (discussing the Cleveland Clinic’s commitment to collaboration among its physicians).}
\footnote{See Cleveland Clinic, President Obama Visits Cleveland Clinic, http://my.clevelandclinic.org/news/2009/president_obama_visits_cleveland_clinic.aspx (last visited Nov. 13, 2009).}
\footnote{See id.}