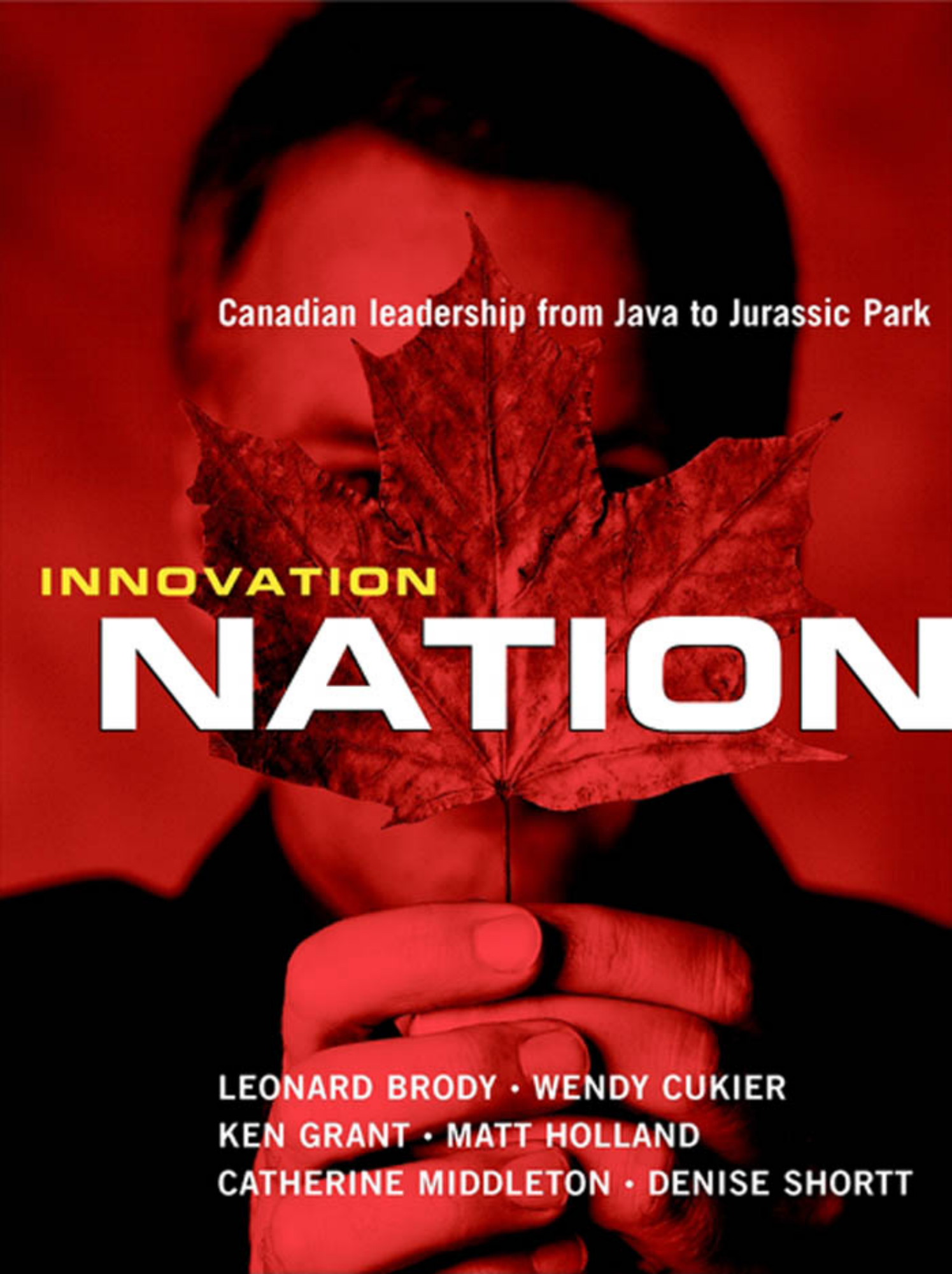
Canadian leadership from Java to Jurassic Park
INNOVATION
NATION
LEONARD BRODY • WENDY CUKIER
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CATHERINE MIDDLETON • DENISE SHORTT

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**DEDICATION** Part of the vision of *Innovation Nation* was to highlight Canadian leadership in the technology economy, while at the same time, contributing to the creation of Canadian role models.

In this spirit, we would like to dedicate this book to each of our parents—our most valued role models of all.

**WELCOME TO THE ALWAYS-ON GENERATION** ANTHONY B. PERKINS CHAIRMAN/ EDITOR-IN-CHIEF, *RED HERRING* JUNE 1, 2002

# FOREWORD

**"THE REAL DIGITAL DECADE HAS JUST BEGUN." BILL GATES, CHAIRMAN, MICROSOFT**
FEBRUARY 2002

Central to Mr. Gates's view that the Digital Decade has just begun is the belief that information technology will provide over twice the productivity in the next 10 years that it did in the last. The other titans of the information age agree. Michael Dell likes to brag that Dell gets over an 800 percent return on its investments in IT due to the complete Web automation of its business. John Chambers of Cisco spends twice the amount on IT equipment that the average company does, and he swears this investment is why his company dominates the networking space. And if you think the next boom will be good only for the big guys, listen to what Amazon's CEO, Jeff Bezos, recently predicted: "For every successful startup that came out of the first wave of the Web, there will be 10 more started in the next wave."

It may seem unusual that the same writer who spent four years (1997 through 2000) warning people that 90 percent of all the Internet companies were ultimately going to go bust is now proclaiming that the Internet action—and upside—has just begun. I will

go so far as to say that most of the entrepreneurial and investment opportunities associated with the Web are still ahead of us. Further, I believe that we do not even know the names of most of the companies that will eventually dominate the Internet age. If this seems hard to fathom, consider that the two largest PC manufacturers today—Compaq and Dell Computer—didn't even exist until after the PC stock bubble burst in 1983. It is also interesting to note that many of the biggest names in business, including Disney, Hewlett-Packard, Microsoft, and Cisco were started during recessions.

And it will be innovators, such as the Canadians profiled in this book, who will create the technologies and companies that will ride this huge wave. People like Tim Bray of Antarctica Systems Inc. and Rob Burgess of Macromedia who are working away as I write, inventing the next generation of the Web and its applications. It will be companies like RIM and Zero Knowledge that will show us how to seize on these new technologies and prosper and grow.

By the year 2005, two billion people will be continuously connected to a powerful global network of satellites and fibre optic cables. We will each carry a low-cost pocket Internet device that will serve as a daily organizer, e-mail device, telephone, radio, and video-playing machine, all rolled into one. Virtually every electronic device we own, from our computers to our television sets to our refrigerators, will be connected to the network and programmed to automatically communicate and work for us. Sony chairman Nobuyuki Idei recently summarized what this world would be like: "PCs and most consumer electronic devices will soon be connected seamlessly to one another over a variety of cable, satellite, phone, and wireless networks, and will provide users with instant access to almost all content and services from wherever they sit."

The second wave of the consumer Internet boom is already gaining significant momentum. Today more than 500,000 people depend on the Internet and the Web to communicate, perform their jobs, research and buy stocks, and get directions for driving. Canadian Internet users are savvy about the available options and have been quicker than most to adopt new applications of emerging technologies. These habits and technology-

adoption rates bode well for the immediate future of the Web. Showing us the future is the emerging "Always-On" generation, a group of largely 12-year-old to college-age kids who use personal computers and handheld devices that are constantly hooked to the Internet. According to a study by the UCLA Centre for Communication Policy, the average kid spends 11.3 hours a week online. Over three-quarters of kids in a recent Pew survey claimed that the Internet plays a major role in their lives and that they would miss it if they could no longer go online. A whopping 94 percent use the Internet to research their papers, and 41 percent seek regular help from teachers and counselors via e-mail. So just as those of us in the PC generation led the last boom, these kids are the early adopters of new Web applications and services. They will show us how to appreciate text messaging and, very soon, visual messaging, as well as mobile commerce and other applications that will make their way into our everyday rituals.

The surge in the consumer Internet market has driven handheld and pocket device sales to new heights. The number of non-PCs connected to the Internet surpassed the number of connected PCs in 2002. In 2002 the cellphone user number passed the billion-user mark, crowning the fastest 10-year penetration of any product in commercial history. China alone is adding five million new cellphone users a month. By 2005 most cellphones will come standard with Internet access and a variety of Web service options. Text and visual messaging, already hugely popular in Japan and Europe, will emerge as the "killer application" for the next-generation Internet. According to the Pew report, 74 percent of online teens use instant messaging several times a week. AOL's president of advanced services, Ted Leonsis, reported that 1.2 billion instant messages were sent over the AOL network on September 11, which underscores our increased dependence on the online world as a way to communicate. The number of annual text and visual messages sent over the Internet is expected to reach a whopping 1.2 trillion by 2005. Canada continues to play a leading role in the evolution of technologies like this. That much is clear from the evidence of the past few years.

But we shouldn't let all this talk about the mobile device boom overshadow what is happening in the larger device market. Just when we felt the PC had become a horribly boring commodity device, Apple Computer CEO Steve Jobs raised his voice (and his new iMac) at MacWorld 2002 in San Francisco and proclaimed the beginning of the third wave in personal computing. In the new era, Mr. Jobs sees the desktop machine as a digital hub for the home that connects our video and still-picture cameras, as well as our CD and DVD players. Across the Pacific, Sony's Mr. Idei will give you a slightly different spin on the same vision. While Sony also produces stylish PCs whose robust sales have been resisting the PC slump, the company is a leader in television sets as well. "We think consumers will use their TV like a server to download and manage most of their entertainment audio and video content, because TVs will always serve the captive audience," Mr. Idei says. To facilitate this, Sony has developed a prototype product called the Personal Network Home Storage System, which can store up to 450 hours of DVD movie content, 1,500 CDs, and 600,000 high-resolution images. Using a wireless home network, consumers can use their TVs to manage and interact with their Walkmans, PlayStations, and video cameras.

Apple and Sony are not the only pioneers in the much-hyped world of converging consumer electronics. At the recent International Consumer Electronics Show in Las Vegas, Moxi Digital, a Silicon Valley startup, and Microsoft have both jumped into the game. Moxi's digital TV set-top box with a high-speed Internet connection is also designed to function as a home media server and integrate the functions of a consumer's digital cameras and media players. The company, started by WebTV Networks cofounder Steve Perlman, intends to license its system to cable and satellite TV operators. Microsoft, for its part, designed its new Xbox game machine to serve also as a digital hub that can download and store music CDs and DVDs. And their new operating system, Windows XP, has been designed so a user's PC experience can be easily extended over a wireless connection to multiple devices and smart monitors around the home. "I believe in basically 90 percent of Steve Jobs's vision for the future of the PC," Bill Gates told me at this year's World Economic Forum in New York.

On the business-to-business side as well, most of the Internet innovations are still to come. In the year 2000, there was $131 billion (U.S.) worth of business-to-business e-commerce. Depending upon which research firm you want to believe, this number is expected to grow to somewhere between $4 trillion and $7 trillion by the year 2005. Fueling this growth is an industry-wide push to create what is fashionably being called in Silicon Valley a "real-time" computing environment, where businesses use the Internet to automate their entire business processes. A key new Internet standard called XML will be at the centre of this changed environment, providing an artificial intelligence capacity to what has been a fairly static platform. XML is one of the many reasons Canada has such a solid claim on its "Innovation Nation" status. It's this kind of change that is powering the Web forward right now and Canada has continued to lead the way.

Large and small companies will continue to leverage these technologies to automate their businesses entirely. Trillions of dollars in transactions will flow spontaneously over the Internet, 24 hours a day, without human assistance. Cisco CEO John Chambers recently boasted that his company practices what it preaches, and has emerged as the largest e-commerce company on the planet, with well over 90 percent of their $20 billion in annual sales in some way facilitated over the Internet. Michael Dell also claims that over 50 percent of his orders come directly over the Internet.

The most advanced companies, like Cisco Systems and Dell Computer, achieve this productivity using smart networks that augment human intelligence by analyzing and organizing material, and automatically answering questions and alerting people when interesting things happen. These new Web functions are being made possible in part by that new-generation Web language, extensible markup language (XML). In essence, XML and its associated developments are making Web development a lot more efficient and much, much cheaper. To build a next-generation Web site, developers will be using software code like building blocks that are interchangeable and easily snap together. Many of these building blocks will be made from open-source software available on the Web, often at no cost. XML also allows developers to code different forms of Web content, like video,

pictures, and text, and link them to dictionaries and encyclopedias that help interpret and sort this content for the user automatically. Microsoft CEO Steve Ballmer believes that "the emergence of XML as the *lingua franca* of the Web is the next big thing in computing, and we are betting 100 percent of our strategy on that change."

Perhaps not surprisingly, the inventor of the World Wide Web, Tim Berners-Lee, is at the centre of the creation of the next Web, which he refers to as the "Semantic Web." "The Semantic Web will be more intuitive, will understand the meaning of words and concepts, and will do so automatically," says Mr. Berners-Lee. (For more information on the Semantic Web, see www.semanticweb.org.) In this new environment, consumers will be able to dispatch intelligent software agents to cruise the Web, watching out for releases from their favourite artists, or buying items when they are available at a targeted price. Business will use these agents to seek out and even negotiate with suppliers for the cheapest prices, and then automatically procure sophisticated transactions, feeding them back into a company's financial and inventory systems.

Mr. Berners-Lee's vision is not lost to the entrepreneurial community. "The adoption of network-enabled applications by businesses is the single most important factor in future productivity growth," said Cisco Systems president and CEO, John Chambers, at a recent Salomon Smith Barney media conference. He went on to boldly predict that these smart networks will increase U.S. productivity rates over the next 10 years by almost double the current U.S. government estimates. And for those in the business of selling technology applications, perhaps the most encouraging part of Mr. Chambers's presentation was that most companies are not even close to adopting the next generation of the Web. Barely three percent of U.S. businesses have completed more than 50 percent of Wave 1 and 2 applications, according to a private Cisco-commissioned study.

The new Web will become so central to the way all companies interact that virtually all existing businesses will have to completely rewrite their Web sites in the new *lingua franca* to remain competitive. Keith Fox, the longtime vice president of corporate marketing at Cisco, which is just finishing a major rebuild of its Web site, is such a believer

that he sees the next Web as the primary brand execution vehicle. He notes that if your customers, suppliers, and employees are increasingly transacting and servicing each one another over the Web, then it is important to consolidate and manage your brand in that environment. The new Web "allows CEOs to simply alter their messaging for the entire universe they serve," says Mr. Fox.

Zooming back up to 30,000 feet, we can now see that the promise of the information age, which was initiated back in the 1950s by the invention of the transistor, is finally being delivered to our global society at large. Information technology and the Internet are completing our transition from an economy of the land to an economy of technology and science. As Israeli Foreign Minister and Nobel Peace Prize winner Shimon Peres expressed to a gathering of city mayors in Rome last spring, "In this new economy, it is not the size of the land but the level of knowledge that will create new opportunities." The level to which technology has penetrated a nation's population will determine its ability to become rich or remain poor. Mr. Peres uses Japan, a country with a relatively small geography and limited natural resources as an example. "The only thing they really have is that they are Japanese," he said. "Look at the opportunities you can create with Japan today! More than you could with a country full of oil, silver, or gold."

Canadian innovators and entrepreneurs have instinctively and intuitively grasped the importance of that insight. Over and over, the people profiled in this book have stressed the importance of working with top people—recruiting them, training them, and keeping them. These lessons will continue to be hugely important for Canada as more and more of its snowbird entrepreneurs come back home.

In a world "globalized" by digital networks, the power and effectiveness of national governments are also fading. With the ability to access almost any information from any location, the new world citizen will become increasingly empowered and independent. The rise of the al-Qaeda terrorist network also revealed how the Internet can create cyber nations uninhibited by geographical boundaries or limitations. In this new age, the creators and distributors of information, such as the major media outlets, will also become more

powerful than central governments. As a result, local institutions and the private sector, which serve their constituencies "eye-to-eye," will have to take more social responsibility.

To secure our future in a new networked world, where a small group of terrorists can communicate from remote locations and initiate mass destruction, we must be prepared to give up some of our privacy. To monitor its safety, the city of Washington, D.C., has already installed small digital cameras at most traffic intersections and public parks. Over time, we will be required to identify ourselves biometrically, perhaps by fingerprints, hand prints, or retina scans. We must also keep a keen eye on the hacker world. Today, most hackers are in their teens and are primarily showing off their hacker skills, rather than stealing credit card numbers or damaging information systems with viruses. But it only takes a few to incite havoc and inflict serious damage.

In the end, however, it is my belief that we will end up in a more secure and private world. Historically, whenever a tension point is created in the world, innovative entrepreneurs jump in to create solutions to ease the tension. We must appreciate and encourage the entrepreneur, and foster Silicon Valley-style entrepreneurial capitalism around the globe. It is our view at *Red Herring*, due in part to the instant communications power of the Web, that technology, scientific innovation, and entrepreneurship are spreading rapidly around the world. Europe, Japan, and South Korea are leading the wireless booms. Biotechnology innovation is showing up in places like Singapore and Cuba.

The bottom line is that no matter which consumer or business-to-business Internet usage numbers you look at, everything is growing at exponential rates. The only debate going on now is whether we are going to grow at a rate of 10 squared or 10 to the eighth. This book profiles some of the Canadian entrepreneurs and companies creating the new technologies which are inspiring us to welcome the global digital network. Their innovations will radically change personal and professional lives. In just the next few years, virtually everybody and everything will be instantly accessible. I expect, as has been the case in the past, that Canada will lead us into the adoption and growth curve of this exciting place in history.

# THE PRECIS

This book sets out what many consider to be a well-kept secret. This secret has become an essential element in the competitiveness and profitability of many companies. It can make business builders more successful, investors wealthier, policy-makers more effective at encouraging economic growth, and may even embolden the leap into entrepreneurship. It is this: **Canada is a global technology leader—it is an *Innovation Nation*.**

From the invention of Java (the groundbreaking software that powers business computers), to developing the 3-D animation software used in *Jurassic Park* (which dramatically changed the way Hollywood made movies), Canadians have slowly moved toward pole position in the technology economy. Canadians like Jim Balsillie and Mike Lazaridis championed the idea of wireless e-mail and built Research in Motion into a Canadian-based global success, revolutionizing the way companies communicate. Jeff Skoll, the Montrealer who co-founded the online auction company eBay, successfully competed in the U.S., arguably the toughest technology market in the world. Vancouverite Tim Bray is working alongside Web creator Tim Berners-Lee at the heart of the World Wide Web Consortium to re-engineer the Internet into its next phase. Michael Potter, the founder of Cognos—one of Canada's most successful software companies, and Tom Jenkins—the

innovator behind Open Text—have shown the ability of Canadian software product and business models to withstand even the toughest recessionary periods. Across the spectrum of technology, Canadians have either assisted or quarterbacked some of the most meaningful innovations of our time.

The notion that Canadians are world-class technologists is not particularly top-of-mind when defining the Canadian identity. For those outside Canada, particularly Canadians who left home many years ago because the country was burdened with punitive tax rates and an economy that did not celebrate wealth creation, the idea of Canada as an Innovation Nation is even more foreign. Times, though, have changed.

The Canadian technology sector has been diligently writing a new chapter throughout the last decade. It has, however, been quiet relative to the few Canadian stories of operatic proportion—Nortel and JDS Uniphase. Moreover, it is often deafened by the overtures of success coming from the United States. In addition, our underplayed achievements often come as a result of the fact that many Canadian entrepreneurs chose to sell their successful companies to larger organizations, a less headline-worthy exit than raising capital through an IPO on the public markets. Unfortunately, this general lack of awareness is costly in the face of increased competition for global investment dollars. Without our story being touted, our top talent is susceptible to recruitment to other geographies more clearly defined as "where the action is." At home, public policy-making aimed at encouraging growth and expansion will not be as effective if it's based on outdated ideas of reality.

This book was written to produce a record of Canadian accomplishment; to many of us, the profiles contained in it are energizing and a source of great pride. For several of the individuals featured here, their stories conclude with great wealth being created; for many others, with great wealth being lost. Throughout the pages to come, however, you will meet some of the minds who are the pillars behind our current success and sustained future growth. Many have played multiple roles in this grand play. For simplicity's sake, the actors can be divided into five essential groups. They are:

- ***Serial Entrepreneurs.*** Serial entrepreneurs are individuals who have launched a series of companies. They are a measure of maturity in an economy. Each business-building attempt, success or failure, adds to their arsenal of experience, such as lessons about defining opportunity, finding markets, securing funding, designing their organizations, and networking. Scars and victories create a basis for judgment and capability in committed, entrepreneurial "lifers." The lessons of the past contribute to raising the odds of success in the future. Canadians now have enough world-class experience that our nation's presence in the technology market will most certainly be accelerated over the next decade.

- ***Financiers.*** Most entrepreneurs have a very close relationship with, and rely heavily on, their investors. "Smart money" is aggressively sought to create synergies, thought partnership, and guidance. While seeing eye-to-eye can be challenging, mutual respect drives a bond that is productive in growing companies through each phase of their natural lives. Canada's financiers have come of age, providing entrepreneurs with a wide array of investment sources, led by an experienced venture capital and angel community. As Paul Chen, founder of FloNetwork, noted about his venture capital firm, McLean Watson Capital, they were critical partners with him in surviving the "long walk through the night" as his business searched to reinvent itself. Many of the entrepreneurs in this book have become financiers as well, creating a powerful hybrid of knowledge and access to capital.

- ***Coaches.*** Part of the inherent value for a nation in producing serial entrepreneurs is their ability to teach. Entrepreneurs who are willing to give back, through coaching and mentoring, have traditionally been the hallmark of evolution in the leading technology nations of the world. The U.S., in particular, has been very successful at rallying entrepreneurs to assist in developing a strong community. Today, Canada too is reaping some of the benefits of its entrepreneurs'

prior successes. Many of the people profiled in this book have taken on the role of a coach in one way or another. They come in many shapes and locations—from founder of Onvia.com Glenn Ballman's Shawinigan Lake Club, to co-founder of the DocSpace Company Sandra Wear's Tykra, a consulting firm that guides entrepreneurs through hypergrowth. Though there are often differing levels of commitment—some formal, some informal—each has taken responsibility in ensuring that Canadian companies have a distinct experiential edge.

- ***Academic Bridges.*** Canada's post-secondary institutions are the key drivers in producing highly capable engineers, researchers, and scientists who make up much of the technological elite of this country. They are also an unparalleled source of ideas that can be commercialized into actual companies.

- ***Infrastructure Builders.*** Entrepreneurs are necessary but not sufficient in building a technology economy. The pre-condition required for accelerating innovation is a solid and stable infrastructure. Canada has one of the best technological infrastructures in the world. Creating this backbone has been one of our greatest strengths as a nation. Those who took part in building our infrastructure have played a critical role in paving the way forward.

These players, when looked at collectively, create a picture that resembles the early maps of Canada, with some territory known but much of it a vast expanse of possibility waiting to be explored. Like any early map, this one will be incomplete, and in the not too distant future, will look outdated. But like all good maps, an early outline is established for others to explore.

## THE BOTTOM LINE—CANADA IS STRONG AND GETTING STRONGER

Canada's impact on the technology economy has been far out of proportion to the nation's modest size. Canadians have founded or directed some of the most revolutionary and talked-about companies of the new economy, including such names as Inktomi, Akamai, Red Hat, and Macromedia. Canadians have also risen to the top of the largest technology companies in the United States—for example, providing a president and COO to Yahoo in Jeff Mallet.

Canada has consolidated its platform for accelerated growth—the country now has a large and growing number of technology entrepreneurs, sophisticated and experienced venture capitalists, and other capital providers, as well as coaches and mentors. Post-secondary institutions are increasingly focused on the power of leveraging their academic intellectual goldmine in partnership with entrepreneurs and financiers.

Together these players have learned to combine their skills and capabilities to create technological innovation. These communities of technology innovation—the clusters—are typically anchored/linked with an academic institution, and a large technology-oriented company or two. Financial partners with deep sector knowledge are often part of the community, as are mentors such as entrepreneurs-in-residence. Canada has mature clusters forming within virtually every major community across Canada.

Economists have long understood the importance of innovation to a country's productivity and, ultimately, to its improved standard of living. Our governments are beginning to understand this; our academic institutions are promoting it, and our businesses are looking to innovation to keep them competitive in an increasingly global world. Innovation is now widely seen as the key to building a stronger Canada. Toward that goal, all players are aligning practices and policies to nurture an environment conducive to growth.

At the same time, the broader economic context is moving more and more in our favour. The public sector has made substantial strides in reshaping the tax and regulatory environment to encourage business-building in Canada. The capital gains rate has been cut and is actually on par with, and often lower than, the rates south of the border. Corporate tax rates have been reduced; by 2005, Canadian firms will enjoy corporate tax rates lower than those in the United States.[1] In addition, Canada's public stock exchanges are working through a restructuring that is making them friendlier to entrepreneurs. This, combined with Canada's remarkable cost advantage for doing business, makes this country exceptionally attractive to the global business community.

Canada has the foundations in place, and is poised for an even better showing in the years to come.

## THE DNA OF *INNOVATION NATION*

We have organized this book into four distinct sections.

1. ***Setting the Context (the Foreword):*** Anthony Perkins is the editor-in-chief and founder of *Red Herring*—the industry bible for technology entrepreneurs. Early on, we contacted Anthony and told him that the Canadian story needed to be told in his publication. He replied, "What Canadian story?" He has been a believer ever since. In the foreword, Tony confidently sketches a future where technology becomes more and more intertwined with our daily lives. He also sheds some light on a new paradigm for entrepreneurs to think about when building new enterprises.
2. ***Accelerating Opportunity (the Precis, the Introduction):*** We discuss in detail the underpinnings behind Canada's stature as a technological leader and why we believe we have such a strong story to tell. We assume the perspective of an investor, and map out an argument about why Canada is a good bet these days, and why the odds may be getting better. We also take a stab at outlining how this country can benefit investors, policy-makers, and budding entrepreneurs.

[1] Canadian Minister of Industry's Keynote address to the Committee for Economic Development and eBusiness Roundtable on May 16, 2001. http://www.ic.gc.ca/cmb/Welcomeic.nsf/503cec39324f7372852564820068b211/85256a220056c2a485256a8f00561171!OpenDocument

3. ***The Stories (30 Profiles):*** Thirty Canadians have been selected for profiling. They are drawn from a broad array of organizations, large and small, from Canada and the U.S. One of the features of the people in the profiles is the fluidity of their careers—many will not even be in the same office by the time this book is printed. The true success of this project will be demonstrated when, while leafing through this book, a reader says, "I didn't know a Canadian did that."
4. ***The Truth about Entrepreneurship (the Afterword):*** Dr. Paul Kedrosky was, until this year, a professor at the University of British Columbia and ran one of North America's only university venture capital programs. Paul lives something of a dual existence as a Canadian, living and working in the U.S. but teaching in Canada and mentoring many startups in this country. He is a partner in a U.S. venture capital fund and a regular contributor to the *Wall Street Journal* and *Wired*. Paul's piece challenges the reader with the truth of what life is like as a technology entrepreneur. He provides a context from which to measure and appreciate the accomplishments of the Canadians featured here.

## THE MAKING OF *INNOVATION NATION*

This book is the legacy of an extraordinary three-year collaboration between the public (Industry Canada/Investment Partnerships Canada) and private sectors that came together to form the Canadian E-business Opportunities Roundtable. The Roundtable functioned as an advisory group to the nation on the state of technology and innovation north of the forty-ninth parallel. The mission was an ambitious one: to co-operatively re-engineer Canada toward e-business leadership in the global economy. The challenge was to collect the best in the country on an ad hoc basis with every participant agreeing to donate the asset he or she had the least of—time.

Chaired by David Pecaut of the iFormation Group and John Roth, the former CEO of Nortel, the Roundtable's membership included leaders from federal and provincial governments and 35 of the top executives from the Canadian technology sector and academic institutions.

Annually, the Roundtable released a report card that graded the country's development. Each year, objectives were set and missions were undertaken. Through this process, the Roundtable essentially functioned as a rudder of an overarching movement that assisted in turning the Canadian economy around—a movement whose success can be measured in such accomplishments as helping build the case, and lobbying for, the substantial lowering of the country's taxes; encouraging Internet adoption by Canada's small businesses to improve their productivity; the furtherance of the innovation agenda; and, in some respects, this book.

Most of us met through the Branding Team, one of the five working teams of the Roundtable. Those 20 individuals were challenged to spread the word about Canada as a technology leader. The truth was so compelling that we decided to collect the best leaders and entrepreneurs Canada had to offer and let them tell the story for us. There was no spin necessary at all. The story is at least as strong, if not stronger, as other countries (Israel, Ireland, India), which appear to have higher public profiles. We decided a book would be a fitting and lasting testament to the achievements our nation had attained.

## WHAT THIS BOOK IS, AND WHAT IT IS NOT

The intention of this project was not to write a treatise on innovation in Canada. Nor was it the goal to outline a history of the technology sector in this country. More importantly, this book was not written to pass judgment. Some of the entrepreneurs featured in this book chose to establish their companies outside of Canada; some could not have done it in Canada even if they wanted to. Regardless, we decided not to pontificate as to whether a Canadian-based entrepreneur is somehow more Canadian than one who left. Common to many of the individuals we interviewed here is the theme of border transparency, the state of mind that requires Canadians to adopt a North American mindset in order to succeed in their business. The point of this book is not just that Canada is a great place for entrepreneurs; it is equally the case that we produce world-class entrepreneurs, wherever they reside.

Each person profiled in this project has experienced both the height of success and the valley of failure. That is why they are interesting. You may read through the pages ahead and think, "why is this person considered an innovator?" The answer for each one is the same. They all contributed to changing the landscape of the Canadian or global technology scene forever.

This book is a celebration. It is no secret that Canadians have been remiss in telling their story. We are not known for our boasting. We hope this project will help Canadians to understand how far we have come, and how bright the future looks.

Another reason for writing this book was to inspire and nourish our young entrepreneurs. Therefore, the net royalties for this project will go toward an ongoing prize at Ryerson University for the best business plan in the IT Department's e-Business program.

Finally, we would like to thank the members of the Branding Team, and all those who supported the development of this book. We are extremely proud of the result. It was not as hard as we thought in many ways, but much harder in ways that we never would have imagined.