

MIKE LAZARIDIS

ORAL HISTORY

COMPUTERWORLD HONORS PROGRAM INTERNATIONAL ARCHIVES

Transcript of a Video History Interview with
Mike Lazaridis
President & Co-Chief Executive Officer
Research In Motion

Recipient of the 2008 Morgan Stanley Leadership Award for
Global Commerce

Interviewer: Ron Milton (RM)
Chairman, Board of Trustees,
Computerworld Information Technology
Awards Foundation

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Ron Milton: Today is Wednesday April 30, 2008 and we're interviewing Mike Lazaridis, President & Co-Chief Executive Officer of Research In Motion.

Mike Lazaridis is the 2008 recipient of the Morgan Stanley Leadership Award for Global Commerce.

The interview is taking place at Research In Motion's headquarters in Waterloo, Ontario Canada, and is made possible by Morgan Stanley and the Computerworld Honors Program. The interviewer is Ron Milton, Chairman of the Board of Trustees for the Computerworld Information Technology Awards Foundation.

The Honors program was established in 1988 to seek out, honor, and preserve the history of the global information technology revolution. It was founded by Patrick McGovern of International Data Group, Roger Kennedy of the Smithsonian Institution's National Museum of American History, and the Chairmen of forty of the world's leading information technology companies.

It is now the world's largest IT awards program.

This oral history is being recorded for distribution to more than 350 national archives, museums, universities and research institutions in more than fifty countries on six continents around the world, and program's archives on-line.

Without objection, the complete video, audio and transcripts of this interview will become part of these international scholarly research collections and made available to the public on the web.

This discussion, however, is private and should any participant wish to withhold from the public record any part of these sessions, this request will be honored. All present here are honor-bound to respect this, and by remaining here, they accept the personal, professional and legal responsibility to abide by this agreement.

With no objections being heard, we will proceed.

Ron Milton: Let's start with your beginning Mike, when and where were you born?

Mike Lazaridis: I was born in Istanbul, Turkey.

RM: How long did your family stay in Turkey because I understand you spent some of your early years in Germany?

ML: Yes, my father always wanted to come to North America. He had been learning English and he decided to become an apprentice in tool and die. So we traveled up and lived in Germany for two years, and when he got his apprenticeship we moved to and settled in Windsor, Ontario. His first job was at Canada Bridge.

RM: Tell us what your parents were like, what they did.

ML: My father ran a retail store. My mother was a seamstress, but she was also a journalist. She worked for a paper in Detroit.

RM: What were their influences on you as a child?

ML: I think they taught me that you control your own destiny; that the world's a big place and it's full of opportunity. They were always self sufficient, always spending time with their family. They taught me about values, always supported me in what I did, even when they didn't understand what I was doing.

RM: As a child, what type of toys did you like to play with or work with? I understand that you had an experience with a train set that was influential.

ML: When I was young there were a couple of toys that captured my imagination. One was electric train sets. I was fascinated with how the power would go down the two railroad tracks. I think that was the first time I understood how an electric circuit was completed.

The other one was Lego. Lego was a very popular toy in Europe at the time, and it's something that I just couldn't get enough of.

RM: As a boy did you have role models, heroes that you looked up to?

ML: I think what had the most impact on me was my teachers in public school and high school. They were great teachers. They cared very much about what we were learning, our opportunities. The teachers actually were very influential in my later days. They taught me the love of the written word, taught me a love of mathematics as well as science and engineering.

RM: What were some of the most influential experiences you had in school?

ML: In high school we had a phenomenal electronics and regular shop program. We had two auto shops. We had an architectural shop. We had a mechanical drafting shop. We had a woodworking shop, and we had two large machines shops. We also had two large electronic shops. One of them was completely outfitted with the latest electronics technology, electric motor generator pairs, amplifiers, all the way up to precision electronic instrumentation. And one of the things that I discovered when I was there was that there were all these computer trainers. They were digital electronic computer trainers.

RM: So Mr. Micsinszki was one of your teachers who was very important?

ML: My high school shop teacher Mr. Micsinszki had one rule. We had all these boxes of new brand new electronics equipment, and the rule was that if you wanted to use a piece of machinery, you had to take home the manual and learn it. Then he would ask you questions about how to use the instrument, and if you answered them correctly then you were allowed to unpack the box and start using the equipment. Needless to say that summer I had opened every piece of equipment in that laboratory.

RM: Tell me about the genesis of the idea that resulted in founding RIM, and what part that your first contract with General Motors had.

ML: When I was in high school I was working with just learning how computers worked, and I was building my first computers. And I remember my electronic shop teacher coming in and saying, "Be careful not to get too involved in computers." He said that, "In the future, electronics, computers, and wireless are all going to combine, and that's going to be the next big thing."

At that point I had heard about it. I had listened to it. It had gone back into my subconscious, but it was years later, after I had started Research In Motion, and I had a chance to get a contract developing software for the first wireless data networks that I realized for the first time that those were prescient words from Mr. Micsinszki. And once I saw it all come together, it was almost like fate. You started to realize how important the opportunity was.

RM: What were your early successes, failures, lessons learned as you developed Research In Motion?

ML: One of the things I learned early on was the importance of really good people; skilled, talented, inspired, hard working staff, and so we've never skimmed on that. We've always recruited the best people we could find. We've always mentored them. We encourage them. We always made sure they had the resources that they needed, the most advanced equipment, laboratories, and tools that they could use to get their job done, and they've always excelled.

It's amazing what a group of bright, talented individuals who are focused on some problem or some opportunity can accomplish. BlackBerry was first built and invented when we were about 100 people. Today we're over 8,000 and the future looks very bright.

RM: The synergy of being so physically close and the innovation with the University of Waterloo next door, I'm sure there's no coincidence there.

ML: I came to University of Waterloo because of its co-op engineering program. I was determined to get a degree in electrical engineering, and the co-op education program was a great opportunity for both getting experience with work and as well as university, but it also allowed me to pay for my way, because I didn't come from a very wealthy family.

So while I was here, I recognized this incredible resource that the University provides in terms of talented students, talented researchers, great research, but also the co-op program. RIM started with one co-op student back in the 1990s. Today we're the largest co-op employer with over 1,000 students every year. They bring a whole fresh, vibrant view on things.

So we have the whole spectrum. We've got young students coming on working on our products. We've got seasoned professionals working on our products, and everything in between. That is what has led us to add some of the more consumer features like the Media Player and the Facebook application in the BlackBerry. It's really exciting to see employees working on this product as if it were their own, adding the features they would want, you know the perfect smart phone, or the perfect phone, or the perfect communicator.

RM: So you have a constant influx of new enthusiasm because of the nature of how co-op works.

ML: Yes, the way co-op works is that every four months there's this transfusion that's happening in the city. It's happening within businesses, and it's happening within the university because these students go out in the workforce for four months. Then they come back and do four months of university studies, and this is continuous. There's no break in between. It's a grueling program, but it gives you an incredible opportunity, and incredible experience that you really can't achieve in any other way.

So it was during those co-op work terms that I worked at Control Data. Many of you may have heard of Control Data. We had a research center here in Canada, and we were working on some really advanced technology. We were working on the very first CMOS gate arrays, the very first CAD tools to simulate and lay out those gate arrays. We built one of the very first air-cooled mini computers. In fact the performance we were achieving was phenomenal. I was disappointed that Control Data couldn't commercialize that technology. These were early lessons that were influential for Research In Motion.

RM: With the enthusiasm of young employees, and the co-op students with the Facebook application, what are they currently interested on being on a BlackBerry – where does that lead you into then with wireless technology for the future?

ML: One of the great things of working at Research In Motion is you get to be involved in all aspects of the wireless spectrum. You can work on things here from as complex as antennas, miniature embedded antennas that have multi bands and high performance, to the color of the plastics, or the industrial design of the packaging, and everything in between. We write our own radio software. We write our own operating system, our own java virtual machine, our own security protocols, our own security platform. We write servers. We write network control centers. We write wireless protocols. We design hardware. We write media players. So there's a tremendous spectrum of things that we do here that our employees can get involved in, lots of opportunity here.

What's really exciting is that we have control over the system, which is unique in the industry. That's why the BlackBerry works so well. That's why it's so reliable. That's why it's so secure. The opportunity for us now is to take that platform, and we've done that over the years, and open it up to the third party software vendors. In fact, BlackBerry is now supported by the two mainstream platform tools, Eclipse and Visual Studio. So there's lots of opportunity for all the other companies, and that was part of it, is to open it up and let the enormous creativity that's out there add value to the BlackBerry economy.

The other thing that's happening now is that we're working with all these network technologies, and we're merging all this technology, whether it's media technology, media player, music player, video player, instant messaging, phone calls, conference calling. The emails are getting more advanced, the web browsing, all this technology is now converging on the device. The challenge to us in the industry going forward is, how do we pack all these features, and continue to add more and more features every year to these devices, and still maintain their simplicity, and still maintain their reliability, security and battery life that our customers expect?

RM: So innovation is definitely not a challenge. It sounds like it's naturally created here.

ML: Innovation is the lifeblood of the high tech industry. In fact I would argue that innovation is the lifeblood of industry in general. Innovation is very important. We have these tremendous opportunities because we can change any part of the system. So on the one hand we have this tremendous opportunity, on the other hand we have this tremendous responsibility to our customers to make sure that we don't break anything when we change something. The exciting part for us is that we get to take BlackBerry in all these different directions, and we have far more resources today than we ever did in the past.

RM: Would you agree with the statement, "No risk, no reward?"

ML: I've heard that people say that entrepreneurs are risk takers. I argue it's the opposite. I think that entrepreneurs work very hard to minimize risk, to understand risk. We don't like taking risks. What we do though is we pursue opportunities, and sometimes those opportunities aren't obvious. I think that's where the misconception is, that somehow we've taken a risk. We've seen the opportunity. We know where we want to get to, and we're just trying to line up the forces to get there, but all along that path, we try to minimize risk.

RM: How do you avoid mistakes as you go forward?

ML: I've been asked this before, how do we avoid mistakes? I would argue that one of the most important things in learning is making mistakes. I think the skill that comes into it is how quickly you can correct mistakes. If you break something can you go back and fix it? If you're going down a path, you should be making sure that if it turns out to be a dead end, you can maneuver quickly to a new path.

This is something that we call a revolution. So I would argue that making mistakes is natural when you're being innovative. You're going to try a whole bunch of different things before you get something that's right. You know all this incredible innovation that happens with the user interface in the BlackBerry? 9 times out of 10, we can come up with something that sounds great; intellectually it sounds like a great feature, or a great way of implementing a feature, or discovering a feature, or a great way for the device to work or operate; 9 times out of 10 it's wrong when we implement it. We'll try it out and no one likes it, or it just doesn't work, or it's very cumbersome. But if you didn't try those 9, you would have never come up with the 10th one, which is the bulls-eye, which is that feature or UI improvement that really sticks and provides value to the product.

So I would argue that making mistakes is a natural process with innovation. The trick is, can you create an environment where it's okay to make mistakes, because that's how you innovate.

RM: You used the term simplicity before Mike, in terms of making sure that with everything that's done, with all the innovation, all the features of the BlackBerry, that the simplicity is still there. How do you make that happen?

ML: One of the things we learned about the BlackBerry is that it just has to work. The mobile experience is very different from the desktop PC experience. What we find is that with the desktop PC, you have the opportunity to sit down and be comfortable. You have the opportunity for a big screen that it doesn't matter how much it weighs or how bulky it is. You have a large keyboard, and you've got a computer that is actually plugged into a power generator somewhere, and you have this high bandwidth fiber optic that's feeding you with information and giving you access to the world and into all your servers at a high rate. You've also got big cooling fans that cool the technology, that cool that big graphics controller, and all those memory chips and the high power CPU.

The mobile environment is very different. The mobile environment is something where there's a perfect form factor. There is a size that can be too big, and there is a size where it can be too small, and everything you design has got to fit between those two end points, those two limits. Once you get past that, you end up realizing that you can only provide so much power to the device.

Battery life is limited. Your battery life does not follow Moore's Law. So now you've got that other limit, which is battery life. Then the last limit you've got is the wireless bandwidth. And although the telecom industry, the wireless telecom industry has achieved broadband speeds, we have not necessarily achieved broadband capacity. So the ability to conserve bandwidth is very important. I think that the wireless spectrum has always been a place where conservation has been important. Compression, technology and audio compression technology, highly efficient protocols, all these things have been really important to the development of telecoms.

Going forward we have to keep that same way of reasoning, that same conservative, conserving mindset going forward as we apply more and more applications to the wireless spectrum. Because if we don't design these applications to minimize how much data they use, if we don't design these applications to minimize the bandwidth requirements of these wireless networks, then we're not going to be able to scale these applications. We're going to have a fewer number of users consuming a tremendous amount of capacity of the network and resources of the network, and it's going to be very difficult to scale applications to all the wireless users.

The other thing that happens is that the battery life is impacted, and that battery life is something that a user expects to last a long time. When you use a laptop computer, as soon as you turn it on, you wait for it to boot up, at that point you're watching your battery meter falling down as you're using it, and it builds up this stress. With a wireless handheld device, if you had that same experience, it would be very stressful.

At Research In Motion, we're always conscious of battery life, and extending that battery life. When we talk about a stress free day, we're talking about an unconscious carry. So there's lots of opportunity to make these devices have more features, but you've always got this paradox that as you add more things that it can do, it gets more complicated, and the battery is challenged. The battery consumption goes up, and so if you're able to work within those variables, you'll come up with a successful product. Sometimes I think we get captivated by one particular feature, and are surprised when that feature does not catch on in the marketplace, and usually the reason the feature doesn't catch on is because it compromises something like battery life or cost, or ergonomics.

RM: With such a ubiquitous and popular device, like the BlackBerry, people become dependant on it, they're in love with it, they don't want to put it down, they can't afford to put it down. So it becomes somewhat of a love/hate relationship or maybe it's those around them that see it that way, any comments on that?

ML: I'll tell you, one of the reasons why I thought BlackBerry was going to be successful in the early days was I would go home and I would have to log in. So I would be spending all this time holed up in my home office getting work done or corresponding. And if I'm not in the office I would be interrupted on the phone.

The BlackBerry freed us. It freed me. It freed others that used the product because it allowed us to leave the office, go home, spend time with the family, and not feel stressed out because you might miss an opportunity, or you might not be able to help out at work when there was a problem and people needed your help. So in effect what it did was it allowed you to get something done very quickly. It allowed you to get it done accurately, and get it done within a short period of time. So you can spend more time with your family, more time with your personal pursuits.

RM: I want to turn now to some questions to do with leadership with you as the head and founder of RIM. You've been quoted as saying that education is the wellspring of innovation, could you comment on that?

ML: My most prized possession is my education. I think one of the most amazing things that we have as a species is the ability to pass down information so that the next generation doesn't have to start from scratch. That's built our society. That's built our way of life, and it's given us all the conveniences we enjoy today.

As we go forward investment in education, and investment in basic science is going to be just as important, if not more important as we go to the future where we start to understand the impacts we are having on our environment. When we start to think of a world without oil, we start realizing the importance in discoveries and innovations in the future, and how they are going to help us continue the kind of life that we enjoy, the kind of wealth that we enjoy, and the kind of freedom we enjoyed in the past. It's going to get done through innovation, and investing in that innovation is going to be very, very important.

RM: So is that where you think innovation comes from, in terms of education and awareness?

ML: As humans we're innately creative, and we're curious. When that creativity and that curiosity are augmented with powerful tools like science and mathematics and engineering our potential is limitless. I think all the advances we have seen today, whether it's the Blu-ray DVDs, or HD television, or the Internet, or fiber optics, or computers, or multi-processing, or immersion video graphics and 3-D displays, whether it's high speed air travel – you name it – medical MRI machines, all these advances have occurred within the last 100 years. Imagine what the world's going to look like 100 years from today if we can continue that kind of innovation and discovery that occurred within the first 50 years of the last century?

RM: You have inspired so many at Research In Motion to innovate so you're an expert at identifying who could innovate, what would you recommend to those who are listening to you now about the traits and qualities of innovators that could be identified and brought out in their companies?

ML: One of the things that we've really internalized here at RIM is the belief in the numbers, belief in mathematics, belief in the limits imposed by physics, and the general understanding of physics. If you don't understand the limitations you can't design something that works well within those limitations.

We've talked numerous times about the importance of battery life. We've talked about the importance of security. We've talked about the importance of optimizing the wireless bandwidth so that more can be done with it without compromising the scalability of the wireless networks. Those are all basic understandings of the physics involved, whether you are talking about electromagnetic radiation, whether you're talking about digital communications theory, or you're talking about the periodic table and it's applicability to new battery technologies.

The bottom line is that physics rules, and that it's very important to understand the physics of something. In a high tech environment, if you don't understand the physics of your particular industry or your particular technology, and you don't understand the limitations imposed by those physics or mathematics, it's really at your peril.

RM: Do you agree with this statement – that information management is at the center of strategy and competitive advantage?

ML: I think that our ability to manage information and our ability to mine information, and our ability to discover correlation and display that information in a meaningful way, allows us to pursue trends in markets and pursue trends in industry, and to understand customer requirements on a macro level.

It's amazing what kind of insights you can have when you have 14 million customers using BlackBerrys everyday. You start to realize that there are some macro issues that you can help them with, you can add value to the product.

RM: What are your hopes for humankind in terms of the revolution that IT has brought and where BlackBerry fits into that?

ML: Early on when we were coming up with the whole idea of the BlackBerry, one of the things that we realized was that a classic entrepreneurial mistake is to try and solve the double serial problem. In other words, we were aware that for us to sell wireless BlackBerry email, we would first have to sell industry on email in general, and then we would have to sell them on the advantage of taking it wireless, taking it with you. So we decided we were going to wait and keep perfecting the product until the email market had grown to a certain maturity, so we wouldn't have to come and sell you on two things. We would just have to sell you on wireless access to email.

All along we realized that we were giving you access to something incredibly valuable, which was your data store, your IT department, your databases, your infrastructure. That information defines the organization, the financial system, the ERP system, the SAP system, whatever you've got installed defines the organization. Having access to that increases value and makes your job easier. It allows you to accomplish that job from wherever you are. So the whole paradigm of BlackBerry was not to replace that system, but to give you access to that system in a meaningful way, regardless of where you are, and whether you're actually connected into your corporation. That's really what defined the BlackBerry mobile experience. We weren't trying to replicate the desktop. We weren't trying to replace the email system. We weren't trying to replace the database. All we were trying to do was to securely move that information out to the mobile user, regardless of where they were, in a way that didn't compromise economics and didn't compromise physics.

Another thing that we discovered was that there was this whole new wireless paradigm coming, wireless data. The market at that time was broken up into two sides. One was wireless voice, cellular voice. That was growing by leaps and bounds. The other side was paging. Paging was a huge business in North America, and we realized that the new networks were going digital, and when we went digital, the voice would be digitized, the data would be just a payload on that network just like the voice would become a payload. Then we realized that there were no standards, there were no protocols; everything was brand new, and so we started investing in that.

As time went on we saw that this a la carte idea that you would buy technology from one and bolt it to another and tape it all up together, that wasn't working either. So we discovered that we really needed to integrate everything together seamlessly and provide a complete experience. It wasn't enough to just hand a device to somebody. It had to be hooked up and working out of the box. We endeavored to make sure that the device worked out of the box and it was reliable.

We also made another important discovery early on. I had an opportunity when I was working with Intel, Intel was an early investor, and their IT manager took me in and we talked to some of his colleagues. I tried to present the idea of the BlackBerry in the 90s, and the overwhelming reaction was, well we don't fully understand what you're talking about, but if it isn't secure we're not going to use it. That really left me with this impression that we had better solve the security problem because this technology is unique in the sense that it's what we call an unconscious carry. It's something that you wear and then you leave the office. When you leave the office, people are still thinking you are there. So they'll send you an email within the organization, believing that it's within your infrastructure behind the firewall, but that information is now leaving the organization. So the security model that we had to create and build over the decade was something that had to be acceptable to IT environment, and in fact it had to be such a strong encryption model that these devices could stay on and connected regardless of what country you were in, regardless of what network you were on. This was something that became the bedrock of the product, its security model. The BlackBerry security model is something that has been independently verified and accredited by nearly a dozen different security accreditations worldwide. It's probably the most tested and accredited solution available today. But it all started from that conversation I had with Intel's IT manager, and then talking with his colleagues to realize the importance of security whenever you have an applications that's working outside your firewall but is still connected 24/7.

RM: Do you see the greatest obstacles ahead as technical or social?

ML: The amazing thing about technology is that it seems to be limitless, and the opportunities going forward are amazing, but so far I think they are still limited by things like battery life, and wireless spectrum, and the physical ergonomics of the device. However I think what we're going to see is these devices becoming more effortless. We're going to be able to accomplish more. They're going to give you more and more different ways to interact with others, interact with information. I think they're going to take on more of a style. They are going to be more individually styled. We're going to have a lot more choice.

One of the things we found was that the closer that these devices get to you physically, if it's something that you wear, like a watch or something you put in your pocket or hold in your hand, it takes on a whole different meaning. It becomes something that becomes a part of you. It reflects your character, your personality, and you take certain attributes from that device. There's a status involved. So what we found was that there's going to be a large amount of customization going forward. There are going to be different styles, different models.

One of those paradigms we're going through right now is just changing the color of the device. We're finding that there are different markets, different opportunities, and people have various choices of what kind of color that they want with these devices. For years all we put out was black, and we had a blue model. Today BlackBerry is available in all kinds of different colors, all kinds of different shapes and sizes. I think that choice is really going to expand the market.

RM: How would you like to be remembered in this IT revolution we're all a part of?

ML: The thing that I hope that people remember is that you can start something up from scratch. That if you have the patience and keep working at something honestly, you can, through the integrity you build over time with your customers, and your partners, your suppliers, and your employees, you can build a great organization. You don't have to do 50 different things at once to be successful. You can focus on one or two, and do a really great job.

You have to understand the importance of your employees, the importance of hiring well, the importance of being generous with them and making sure that they have the equipment and freedom to really pursue their goals and their opportunities and their personal visions, but at the same time, you have to stay open to them, talking to them, and making sure they understand the opportunities ahead for the market.

RM: Mike Lazaridis, President and Co-Chief Executive Officer of Research In Motion, recipient of the 2008 Morgan Stanley Leadership Award for Global Commerce, thank you so much.

ML: Thank you.