

---

# THE SUCCESS AND FAILURE OF NORTEL

**Lessons for event intelligence and beyond**



*Jonathan Calof, Greg Richards and Laurent Mirabeau,  
Telfer School of Management, University of Ottawa*

"Nortel Networks", a telecommunication giant, was one of the most successful Canadian companies in recent history. Since Nortel's demise, no other Canadian company has eclipsed its capitalization (\$300 billion by 2001), nor the market and technology success it had reached at its peak in 2001. In that same year, 75% of all internet traffic in North America was going through Nortel equipment. Indeed, in 2001, Nortel had crafted itself a leadership position in optical, wireless, wireline, and the business enterprise markets. Less than 8 years later, in January 2009, it officially filed for bankruptcy protection. This was the single biggest corporate failure in Canadian history and one of the largest worldwide.

The three of us over the past four years have been studying the Nortel story to learn what it took to become number one and what happened for this company to go from number one to filing for protection. To this end, we interviewed close to 50% of all the officers of the company who had been there at some point between 1997 and 2009, key customers in Europe and North America, competitors, suppliers, and other stakeholders. This led us to formulate more than 100 lessons learned, that can be found at the study website ([www.telfer.uottawa.ca/nortelstudy](http://www.telfer.uottawa.ca/nortelstudy)). Among the many important lessons we learned is how critical exceptional competitive intelligence is in gaining prominence in the industry, as well as how inadequate practices in CI can lead to the demise of the best companies. We plan to write a lot more about the intelligence lessons from Nortel in the future. In this article, we look at the role of competitive intelligence and environmental scanning in explaining Nortel's success (and failure) and we derive recommendations for running a successful event intelligence program.

While Nortel, in its rise to the top, understood its environment, to a certain extent, it also played a role in creating it. Customers told us how Nortel shaped the future, developing technologies and products that they, as customers, did not even realize they needed. But towards the later years, customers also explained that Nortel was out of touch with their needs, and that the company was unresponsive to their concerns. Many of those interviewed talked about the early to mid-90's and Nortel's extraordinary competitive intelligence unit and competitive intelligence guild; an across-lines of business "club" that brought together Nortel CI practitioners and users (Hogan 2001). They talked about Nortel's design and interpretive center; a unique center to which Nortel invited their customers' customers (the end users of telecommunications equipment) to use the new products that would be sold

to the telecommunication companies by Nortel. This helped Nortel learn more about the end user's needs so that they could develop better products for the industry as a whole. Many talked about an advanced planning function (some referred to the unit as Division 6) that engaged in environmental scanning and reported directly to the top levels of the corporation. Finally, customers recalled how Nortel would administer systematic customer surveys, something of great importance at Nortel which provided a wealth of information.

Therefore, our findings show that Nortel had several **formal external monitoring practices in CI**: the competitive unit, the competitive guild, the planning unit, the design interpretive center, and the customer surveys (see exhibit 1). Thus, from an intelligence perspective and event intelligence, we see the importance of having a world class intelligence unit as well as the need to focus not just on competitors but customers and, even in the case of Nortel, your customers' customers.

While the formal external monitoring practices played a critical role in shaping the company's success, we also uncovered a second class of CI practices that were integral in shaping Nortel's success: the **informal external monitoring practices** (see exhibit 1).



| Changing Environment | External Monitoring Practices                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                 | Decision Maker's Cognitive Makeup |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
|                      | Formal                                                                                                                                                                                              | Informal                                                                                                                                                                                                                                                                                        |                                   |
|                      | <ul style="list-style-type: none"> <li>• Competitive Intelligence</li> <li>• Competitive Guild</li> <li>• Design Interpretation</li> <li>• Customer Surveying</li> <li>• Formal Planning</li> </ul> | <ul style="list-style-type: none"> <li>• Board Members Reaching out</li> <li>• Building Industry Relationships</li> <li>• BNR's Futuristic Work</li> <li>• Funding Universities</li> <li>• Interacting with Customers</li> <li>• Attending Tradeshows</li> <li>• Management Programs</li> </ul> |                                   |

*Exhibit 1 - Environmental awareness model: the case of Nortel. Adapted from Calof et al., 2015*

Our team noted an extraordinary intelligence capability leveraged well by the intelligence team, a capability that enabled Nortel to extend environmental scanning capacity beyond just the intelligence team. By this, we mean leveraging assets not specifically focused on providing intelligence but ones that can be used for this purpose. These CI assets included people such as board members with industry connections and knowledge and senior executives with close friendships with customers. For example, many interviewees talked about Bell Northern Research (BNR). BNR was a long-term oriented research group that conducted fundamental research within Nortel. This unit, through its relationships with scientists around the world, its involvement in symposia, conferences and the like can best be described as Nortel's long-term competitive technical intelligence. BNR was an important part of an external technology monitoring capability that would then translate the knowledge captured from external sources into design and development of future products. They were not intelligence personnel but scientists. Their role was not environmental scanning but developing new technologies. By doing so, they would scan the pertinent literature, attend appropriate conferences, and network with various external experts in an informal yet effective manner.

Several of those interviewed also mentioned that Nortel learned a lot due to ongoing interaction between technical staff and Nortel clients. One senior technical person commented that by listening to the clients' concerns they could "in 10 minutes, develop new solutions". Industry relationships were also seen as a method for gaining knowledge about the industry with many of those interviewed commenting on the closeness between Nortel senior management (in

particular sales management) and customer senior management, outlining the information they gained because of these relationships. Others talked about the valuable information gained thanks to board members, in particular board members who represented Bell Canada Enterprise (BCE), a key Nortel customer and, at one time, a significant shareholder. Having a customer on the board provided Nortel with valuable information on customer's needs and concerns as well as test sites for new technology. Also mentioned was Nortel's links with universities through endowed chairs and research programs, which provided valuable insight into technology developments.

What is the event intelligence implication of these assets? One of the authors of this article has worked with Nortel intelligence staff in the past on event intelligence programs. One of the objectives in this Nortel event intelligence program was to get the assistance of Nortel non-CI staff at events to gather information required for Nortel's intelligence efforts. There were some major industry events with hundreds of Nortel personnel in attendance. These people greatly extended the capacity of the intelligence unit at these events. They provided additional networks for the intelligence unit to access (the friends and colleagues of the Nortel employees in attendance), additional interviewers, and experienced eyes, capable of understanding the technical and market complexity of what they are seeing at the event. Nortel's culture of "bleeding blue - Nortel's colors" (the Nortel family and customers come first) made the "asking" for help from these Nortel employees relatively easy and in fact was no doubt of benefit in growing the intelligence guild (mentioned earlier).

Thus we found these two types of monitoring activities (formal and informal external monitoring) to be very active in Nortel and contributing to its success. We also saw how reduction in both sets of capabilities contributed to its demise. More detail on this is provided in the study report which can be found on the study website [www.telfer.uottawa.ca/nortelstudy](http://www.telfer.uottawa.ca/nortelstudy) and in a more detailed academic article on the environmental scanning at Nortel published in the Journal of Intelligence Studies in Business (Calof et al 2015).

In addition to the formal and informal monitoring practices, we found the cognitive map of decision makers was pivotal in both success and failure as it conditioned how the information from the CI practices would be relayed and acted upon. It was not just about having the information, the decision makers also needed the right mindset when receiving it. This idea has been discussed before: the intelligence field has identified the need to communicate intelligence in the manner in which the decision maker is prepared to accept it and that practitioners need to know more about the decision makers cognitive capabilities when providing the intelligence (see Calof 2015 for more on this). The Nortel study provided valuable insight in that four specific cognitive variables were mentioned in interviews:

# 1. Technical vs. management orientation

Nortel was a company that prided itself on developing innovative technical solutions. Therefore, much of the intelligence created for management had to be of a technical variety. Respondents, when talking about



the management of the 90's (Nortel's rise), marveled about the technical competence and sophistication of these senior managers and their ability to understand the technical environment. They also commented on their business knowledge and strength. Key here from an event intelligence perspective and intelligence in general is to ensure that the readers of your intelligence have the cognitive profile to understand exactly what you are presenting to them.

## 2. Cognitive complexity

How many variables can management process at one time? The growing complexity of the environment requires that decision makers be able to consider simultaneously customer needs with an eye on how the competitors are going to respond while also looking at technological developments and emerging government regulations. Reports prepared from events can be integrated into multidimensional views of the environment or can be one dimensional profiles (i.e., here is the customer intelligence, here is the competitor intelligence). Intelligence reports in general and event intelligence reports specifically need to cater to your client's cognitive complexity or they won't be understood.

### 3. Externally oriented vs. internally oriented

Intelligence is about being externally oriented, focused on the environment but many companies that we deal with are more focused on internal information and issues. It is well documented that senior managers caught up in the politics of the organization are often focused on building their kingdoms. Many of those interviewed brought up how in the 90's Nortel was very much focused on ensuring that customer's needs were met (uptime on new equipment for example being 99.999% - referred to as five nines reliability), providing support and clearing away anything that interfered with serving the customer.

### 4. Open minded vs. closed minded

Being a good intelligence user (client) requires an open minded attitude, a willingness to consider opinions (on the environment) contrary to those held by the user. Many talked about Nortel's strong culture creating a "not invented here" mindset resulting in the perception that management was not open minded to information about possible environmental changes, especially when it was contrary to their beliefs in technology needs.

The first two items (technical versus business orientation and cognitive complexity) reflect management's ability to understand the intelligence you are developing. The latter two (open minded vs closed minded and external vs. internally oriented) impacts the decision-maker/

clients attitude towards intelligence. Understanding all four need to be considered by the CI practitioner in writing up intelligence reports and providing briefings from events.

#### CONCLUSION:

World class competitive intelligence and well integrated informal external monitoring practices helped propel Nortel to the top of its industry. Conversely, our study also shows how a reduction in these capabilities contributed to the demise of Nortel. The decision makers' cognitive make up also played a very important role in enabling the intelligence developed to be effectively implemented in Nortel's rise. In terms of the lessons learned from the study for event intelligence, three are brought up in this article:

- Involve all company employees going to an event in the event intelligence program and not just the intelligence staff;
- Consider while at an event intelligence topics that could be of direct importance to your customers (your customers key intelligence topics);
- Write reports/ briefings from the event that address the cognitive capabilities and cognitive limitations of your intelligence customers.

One final comment, the Nortel study goes well beyond how to successfully run an event intelligence program: it provides insight on the need for intelligence in general, how to become number one in your industry and how to avoid failure. With all that is contained in the study documents, we encourage readers to visit the study website ([www.telfer.uottawa.ca/nortelstudy](http://www.telfer.uottawa.ca/nortelstudy)) and download the various study reports and key findings.

## REFERENCES:

Calof, Jonathan., Richards, Greg, Mirabeau, Laurent, Mouftah, Hussein, Mackinnon, Peter, Chapman, Peter (2014) An overview of the demise of Nortel networks and key lessons learned. <http://sites.telfer.uottawa.ca/nortelstudy/files/2014/02/nortel-summary-report-and-executive-summary.pdf>.

Calof, Jonathan, Mirabeau Laurent and Greg Richards. 2015. Towards an environmental awareness model integrating formal and informal mechanisms – Lessons learned from the Demise of Nortel. *Journal of Intelligence Studies in Business*, Volume 5, Issue 1, <https://ojs.hk.se/index.php/JISIB/article/view/112>.

Calof, Jonathan. 2015. *Creating Impactful Intelligence: Communication Lessons From the Corporate Environment in Intelligence Communication in the Digital Era: Transforming Security, Defence and Business*. Palgrave Connect, edited by Ruben Arcos and Randolph Pherson.

Hogan, Scott. *CI in High Tech Environments: A Practitioners View*. Presentation made February 14 2001, Nortel Networks. <http://www.fptt-pftt.gc.ca/pdf/Hogan.pdf> Accessed April 19, 2015.

.....

**About the Authors:**

**Jonathan Calof** is a professor of International Business and Strategy at the Telfer School of Management at the University of Ottawa, and co-director of the Telfer's Business Analytics and Performance Management area. He combines research and consulting in competitive intelligence, technical foresight and business analytics to help organizations develop key insights on their competitive environment. Jonathan received the fellows award from SCIP and the lifetime achievement award in competitive intelligence from Frost and Sullivan. He has close to 200 publications to his credit including co-editing the *Competitive Intelligence Foundations Conference* and *Trade Show Intelligence* book.

Jonathan has given over 1000 speeches, seminars, and

keynote addresses around the world on intelligence, foresight and analytics, and has helped several companies and government agencies around the world enhance their capabilities on these areas. He can be reached at [Calof@telfer.uottawa.ca](mailto:Calof@telfer.uottawa.ca).

**Greg Richards** is currently MBA Director and Director of the Centre for Business Analytics and Performance at the University of Ottawa's Telfer School of Management where he teaches courses on Organizational Performance, Management, and Management Consulting. Prior to that, he worked as Director of Market Development for Cognos Incorporated. He is a Certified Management Consultant who has provided consulting services to a wide variety of public and private sector organizations. His current research focuses on performance techniques in public and private sector organizations, the use of Big Data and Analytics, and the role performance information plays in stimulating organizational learning and innovation. Greg can be reached at [Richards@telfer.uottawa.ca](mailto:Richards@telfer.uottawa.ca).

**Laurent Mirabeau** is an assistant professor at the Telfer School of Management at the University of Ottawa and a former Nortel Network Customer Advocacy Manager. He has extensively consulted with companies on matter of strategy and competitiveness in both the private and the public sector. As a scholar, he is a published author in the *Strategic Management Journal* and a member-at-large representative of the Process Interest Group at the Strategic Management Society. His expertise includes strategy process, emergent strategy, strategy-as-practice, and technology governance and complexity science. Laurent can be reached at [Mirabeau@telfer.uottawa.ca](mailto:Mirabeau@telfer.uottawa.ca).

