

Developing Digital Strategy

By Heather A. Smith and James D. McKeen

CIO Brief

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THIS WHITE PAPER IS BASED ON THE PROCEEDINGS of the CIO Brief group focusing on how to develop a digital strategy, using the experience of Toronto Pearson Airport as a case study.

Silvia Gonzalez, a senior manager at Deloitte Digital responsible for Analytics and Digital Convergence, offered an introductory framework for thinking about this topic. "Digital is an era," she said. "It's a new way of doing things and will eventually become how we do everything."

Therefore, digital is not just about marketing but about changing behaviours, creating a digital life for ourselves with businesses, and connecting socially. It is changing companies, creating new approaches to customer service, and developing new digital skills, resulting in new digital products and outputs. "A digital strategy is only the first step in this new approach," she said.

Businesses must think about the journey to digital and what they want to become. Some key questions to ask include:

Strategy

- Where will we choose to play? How will we win?
- What is my innovation ambition?

Useful tools: Strategic Choice Cascade and Innovation Ambition Matrix.

Innovation

- What are the unconventional insights that matter?
- What new concepts can we design and test?

Useful tools: Ten Types of Innovation and Design Thinking.

Imagine

- What is a simple, beautiful contextual experience?

Useful tool: Business Model Canvas.

Build

- How do we engage early, test often, iterate, and visualize progress?
- How do we sustain and run the solution?

Useful tool: Lean/ Agile Development.

A digital strategy has four components:

1. A Digital Experience Design. This will create a long-term vision and estimate of benefits, customer personas, a customer story map, app features, wireframes of key processes, and detailed user stories.

About the authors

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2. A Digital Operating Model. This component assesses the technology platform to establish the options, criteria, and path that will eventually select the technology required. It includes: assessment of the current architecture and required web services; list of integrations required; and proposed solution architecture.
3. A Digital Platform Assessment. This is a delivery plan to outline the timing, effort, and costs required to deliver a multiple release schedule.
4. A Business Case and Delivery Plan. This includes: creative concepts and designs, developer-ready requirements, prototypes for testing, deployed mobile apps, change and communication plans and support, and assistance in promoting and marketing apps.

"To build the processes behind digitalization many companies are creating Chief Digital Officers to work with the CIO," Silvia concluded.

Digital Strategy at Toronto Pearson Airport

Toronto Pearson Airport receives 41 million passengers a year, serves 60 airlines flying to 180 destinations, and is the second largest airport for inbound international traffic to North America. Significant growth is expected to continue over the next 15 years. To accommodate new traffic, its CIO, Martin Boyer, is leading an enterprise-wide IT transformation.

Martin joined the Greater Toronto Airports Authority (GTAA) in 2014, after holding numerous positions in insurance and Air Canada. "The GTAA is the integrator of all airport services," Martin noted. Services include: airlines, customs and immigration, ground transportation, police, service contractors, retail and catering partners, and the travel and transportation industry. More than 40,000 people work there.

To support the expected growth, it would be easy to expand the airport's physical footprint by building. Martin believes, however, that there are still many inefficiencies in the current airport that can be improved by using IT to better utilize current structures and attract more partners and customers. "This is what's at the heart of our digital strategy," he said. "We want to minimize connection times for all involved."

The GTAA's 20-year vision is based on a combination of operational excellence, customer experience, and financial sustainability. "If we can deliver on these, we can delay construction and save money," he said.

Today, the airport has peaks and valleys in its schedule, which give staff some time to recover from a slowdown or a problem; tomorrow's airport will likely not have these ups and downs so it is important to use systems to optimize flow. Martin noted the close connection between the airport's online presence and travel spikes, storms, and other disruptions. "Seventy-five percent of our web traffic is now through mobile. We need to have an up-to-date digital presence about what's happening."

"Creating a great end-to-end customer experience is what a digital strategy is all about"

The GTAA's IT Blueprint is built in layers – communication platforms, operational applications, business intelligence, and network tracking of passengers and assets. All of these investments are strategic. For example, the network layer will take advantage of the Internet of Things to track machine-to-machine transactions and customers through their connected devices. To do this well requires enough bandwidth and a structure of information and predictive models. In addition, these layers must be integrated to achieve the organization's overall goals and communicate in real time with passengers.

The organization's digital strategy uses a POST acronym, which stands for:

- **People.** Who is our target and what are their needs? These include: passengers, employees, business partners, community, the press, and government bodies.
- **Objectives.** What are we trying to accomplish? What is the business objective? A sample objective for passengers would be to provide unparalleled access, convenience, and communications, especially during irregular operations. For employees, it would be to improve airport operations through timely and relevant information.
- **Strategy.** How will we achieve our objectives? This involves both monitoring emerging technologies and best-of-breed applications, and deep research into particular technologies and analytics.
- **Technology/Tactics.** What platforms or services will help us fulfill our objectives? The GTAA's goal is to serve multiple platforms through its website and move to fewer platforms that can be used at multiple levels. This will involve improving its website to enable greater volumes and creating more services, such as reserving a parking space at the airport. "There are huge opportunities available," said Martin.

Ultimately the blueprint and strategy will lead to specific initiatives that can be prioritized and deployed. "We've learned that in order to get where we want to go we need to understand what we want to achieve and that the boundary of the airport starts at home," he said.

Discussion

A key takeaway is that companies must convert customer touchpoints to purchases, said a member. "It's all about analytics," agreed Martin. "We need to make searches more successful and create a more positive online experience." Another member added that his company wants to make their customer experiences different and to surpass others in this area.

Removing barriers to boost convenience is essential to a successful digital strategy. "Creating a great end-to-end customer experience is what a digital strategy is all about, but it's not easy to do. The complexity of today's organizational ecosystems makes this especially difficult."

Although an online presence is very important, bricks and mortar operations are not going away. "There has to be a shared e-commerce model and

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*Knowing what you
want the
experience to look
like will then tell
you what
capabilities will be
required*

physical touch is still important for much shopping.” The best way to do this is with pilots that demonstrate the power of the combination of digital and physical. “The proof is in the sales figures,” he said.

Members asked if a digital strategy is as important for business-to-business organizations. Martin explained that this strategy works at two levels. “It’s not only about consumers,” he said. “We are using sensors and IOT at the front-line level as well.”

Employee enablement with digital is also an important component of a digital strategy. Employees must be part of this change, the members agreed.

Some members pointed out that the definition of “digital” continues to expand. For example, a car is now a digital device that can be networked. With the coming Internet of Things, everything will be online and potentially hackable. It is a challenge to know how to protect them and where the boundaries lie and this complexity is increasing.

Maximizing value and balancing cost and revenue are also significant concerns. Martin explained that the GTAA has two types of revenues – from airlines and retail to customers – so it has more choice about where and how to invest. Although selling more is always the objective, there are many ways to approach this, such as improving digital content and inventory.

IT strategy, business strategy, innovation, and digital strategy are all inter-related but these relationships are not always clear. Knowing what you want this experience to look like will then tell you what capabilities will be required.