



Moving beyond the comfort zone Digital transformation in power and utilities

A bright ideas article



Sometimes it seems like we're in an endless cycle of innovation and maturation. We saw it in the 1980s with the shift from mainframe to client/server computing, and in the 1990s with dot-com. Sometimes, technologies conspire to create a business revolution, and the latest one we've seen is digital.

Although this digital revolution has already created a new normal in many industries, the power and utilities space hasn't been quick to respond. On a fundamental level, energy companies are still using the old model. Some may be doing digital things—using digital tools or talking about digital—but this doesn't mean they're being digital. Digital platforms are still in their infancy, and energy companies haven't yet started down the path toward transformation for the digital age.¹

Given the growth in trends concerning how consumers desire more control over how they experience consumption, decarbonization, and electrification, it's not surprising there's a lot of pressure for change. As was the case many times before, it's much more likely that true disruption and change will come from non-traditional competitors because most legacy energy companies are slower to change. For example, during the recent California wildfires, which caused many power outages, demand spiked for Tesla Solar PV tiles and energy storage. Does this mark the beginning of a new business model that bundles your car with energy in your home? Or do tech giants like Alphabet or Amazon,

with their smart home products, bundle that control with energy in the home? This type of business model innovation could give non-traditional players an opportunity to put utility companies on the sideline.

Implications for Canadian utilities

While the need to be digital in order to compete with new entrants in the energy space may be debated, the realizable benefits shouldn't be. In Canada, vast operating areas and relatively low population density mean both asset-to-customer and asset-to-area ratios are higher compared to those of utilities in the United States.² Combined with harsh winter climates that affect the life expectancy of equipment, these often result in higher delivery charges. The best tools for combatting many of these challenges are underpinned in being a digital organization.

With strong digital capabilities, utilities can better sense or predict outages in the network, and even resolve those outages automatically when they do occur. These capabilities can greatly reduce and optimize so-called windshield time—the costly travel to and from work sites—and provide a host of other benefits, including improved

reliability, extended equipment life cycles, and overall safer operating environments.

While there have been some exciting recent developments in technology, such as affordable augmented reality for service workers, many technologies have been around long enough to be proven satisfactory—and yet utility companies have been slow to deploy them, or the deployments have not provided the return on investments or benefits that were expected.

If it isn't the technology that's failing, it must be something else—and what we have seen is that "something else" is often rooted in the people dimension. And that's why it's so important for all employees to understand what being digital really means."

Setting the digital context

What is the real case for change? What does it mean to be digital? And what does digital even mean? To answer these questions, we need to come up with a common definition. Some might say that digital means automation and efficiency; others that it means using digital technology to come up with new products or new business models. And this is the essential point: everybody sees it differently. At its heart, though, I believe digital is fundamentally a people transformation.

You may be asking yourself: “How can technological change be about people?” Consider *The Wizard of Oz*. The tornado that sends Dorothy to Oz isn’t central to the story, but it is necessary. And just as *The Wizard of Oz* isn’t about the tornado, the digital story isn’t about the technology.³ Technology is an integral part of how we’re moving to this new normal, but for us it’s not a technical challenge. We know how to solve the technical problems. Instead, it’s a people challenge. It’s about changing mind sets, cultures, capabilities and competencies, and ways of working.

Digital leaders take on new importance

As we embrace the digital normal, we’re going to need original ways of leading. We will need to think, act, and react in novel ways if our organizations are to succeed in a digital world. Along with new organizational structures⁴ that enable and embrace flexibility and scalability, the new ways of working will require agile approaches, human-centred design, and innovation. Probably the biggest transformation, however, is helping people to be future-ready with the skills and competencies needed for success in the new normal.

The world has changed, and there are still far too many people who don’t know how to be digital. Markets have been constrained since 2008, and the COVID-19 pandemic is only making the situation tighter. We can’t stop and reskill everybody. We’ve got to keep moving, and we don’t have time to pull off the road. Instead, we’ve got to figure out how to change the tires while the car is in motion.

In many ways, COVID-19 has been a natural catalyst for this. Before the pandemic, most organizations didn’t believe transitioning their entire workforce to remote work was possible, or if it were, that it would take years to achieve. But with the COVID-19 shutdowns, moving to remote work happened rapidly—a great example of change while in motion. Organizations had to adapt, and people are getting through it. And the change that’s still needed—transforming people—isn’t as scary as what we’ve just been through.

Learning in the flow of work

Many power and utilities organizations will need to think about learning in the flow of work, taking learning out of the classroom and integrating it into the day-to-day work employees do to deliver learning experiences that are personalized and context-specific. This means paying special attention to upgrading their teams’ skills. And this isn’t just about technical skills. It also includes those important, enduring human capabilities like critical thinking, communication, and collaboration. These skills are essential if the holistic changes—the new ways of working—are going to come to pass.

This is a massive change, and it will affect everybody and everything. The first step toward transformation is to define your guiding principle, your North Star. It’s not just about strategy, deciding where you’re going to play and how you’re going to win. Your North Star must be bright enough to inspire change and clear enough to lead you in making the tough trade-off decisions.

The second step is simple. You’ve got to get started. These are the minimal viable changes, the tactical actions that let an organization change its DNA. Get moving, start building momentum, learn within the flow of work, and start seeing results.

What happens next?

I believe that most people either understand or are on the cusp of understanding that transformation needs to happen. They may need a little kick to get started, and they need to realize what digital really is: a people challenge. Left to their own thoughts, most people think digital is about the technology. They’re doing things that involve new technology, and this makes them feel better. But they’re not actually getting there, and they’re not adopting digital.

We’ve all just been through a huge jolt with the global pandemic. And while it’s been hard, it also leaves us much more able to challenge the old orthodoxies. We’ve already broken one of the big ones: we’ve proven that remote work is possible, even sustainable. Now it’s time for energy companies to get out of their comfort zones and start looking at new business models and new ways of working. It’s time for them to develop a new digital mindset. Otherwise, they run the risk of having an outsider come in and do it for them.



The path toward a connected series

This series of articles will explore the issues facing stakeholders in the energy ecosystem, the options available to them, and case examples of what others are doing. Topics for our *Bright ideas: New perspectives on the future of Canada's power sector series* include assessing strategic risk and making choices to win in the future of energy; energy transition through innovation and digital transformation; the impact of the evolving customer lens; energy transition and operational implications; and the cyber risk implications of energy transition.

We hope that you will join us in the conversation.

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