

Columnists

Opinion: Data a gold mine of knowledge and opportunity – if we knock down barriers

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Reg Joseph, CEO of Health City Edmonton, poses for a photo in Edmonton on Friday, July 17, 2020. PHOTO BY IAN KUCERAK /Postmedia

We leave a constant stream of digital fingerprints — data — from multiple interactions in our daily lives. The analytical yield of data collected from millions of these interactions is a gold mine of knowledge. That knowledge, when used to inform decision-making, has the power to improve the lives of all Canadians and drive economic growth.

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In many sectors however, we are not fully using the power of data to inform our decisions. The health sector is a prime example of this. In Canada, our health costs continue to rise while our outcomes, when compared to other jurisdictions around the world, are declining. The adoption of artificial intelligence/machine learning (AI/ML), and other data techniques on the vanguard of technology would enable us to be smarter and timelier in how and where we deploy resources, so that we reduce costs and improve health outcomes.

So why aren't we better at using data in health care? Many of the barriers to access and utilization are due to a culture of risk avoidance, and most importantly, legislation. Our current legislation is outdated and needs to reflect the current demands of the data economy. It is no longer feasible or necessary for health systems to bring the required vast technological capacity in advanced analytics "in house" when it is possible for collaborations to deliver solutions.

Partnerships with community, academia, and industry would provide the know-how and latest tools to move our data resources into knowledge with impact. Instead of fencing off data, imagine the creation of a multi-partner framework under which talent from several sectors could work collaboratively and safely with health data. By creating a culture of collaboration, we would create the opportunities to address some of our health systems' biggest challenges and opportunities.

When I share this concept with fellow Canadians, the response I most often get is "you mean we're not doing that already?" Studies have shown that Canadians are ready to embrace the number of potential benefits that exist from readily available data, as long as privacy is a clear priority.

Privacy and data are not mutually exclusive when appropriate and responsive safeguards are in place. Principles of privacy and ethics can be designed into the latest technologies, as is shown in a collaboration in Alberta around synthetic data. The project addresses privacy concerns by creating an AI-generated record that only mimics real-world data; as it is "synthetic," it doesn't track back to individual patient personal information. The Office of the Privacy Commissioner of Alberta participated in this collaboration in the role of observer.

Alberta companies are already providing solutions to problems in their communities and beyond. If they can combine powerful tools like synthetic data with data sharing, homegrown solutions can be used to solve similar challenges nationally and globally, allowing these companies to scale to other markets.

Considering Alberta’s existing leadership in technology platforms like AI/ML, Internet of things (IoT) and immersive technologies, along with the impressive strides made in implementing a common electronic medical records system, our province has an opportunity to not only improve the health of Albertans but to be a national leader in data and its management. This opens the door for collaborations within our community, academia and industry to perform research and build on the numerous existing strengths in our region. In turn, this creates more opportunities for innovators and entrepreneurs to build and grow their companies right here in Alberta.

To fully harness the power of data, we must first have updated ethics and privacy policies that adapt to and anticipate our ever-changing technological landscape. Secondly, with technological advances, there are novel methods to address privacy requirements — we must leverage these. This will enable more efficient deployment of public resources and support emerging sectors that fuel job growth.

Data is a gold mine of knowledge and opportunity, and for it to live up to its promise we must do three things: tackle existing barriers — cultural, technological and legislative; invest in improved data usage; and prioritize collaboration. Only then can we truly harness data’s true potential to drive economic recovery, diversification, and growth and improve the health and well-being of all Canadians.

Reg Joseph is CEO of Health Cities, a Canadian not-for-profit corporation that works with clinicians, innovators, philanthropic organizations, and companies to develop new models of care to drive better health outcomes and economic growth in the health sector.

