

The Ontario

JANUARY/FEBRUARY 2022 • VOL. 64 NO. 1

Technologist

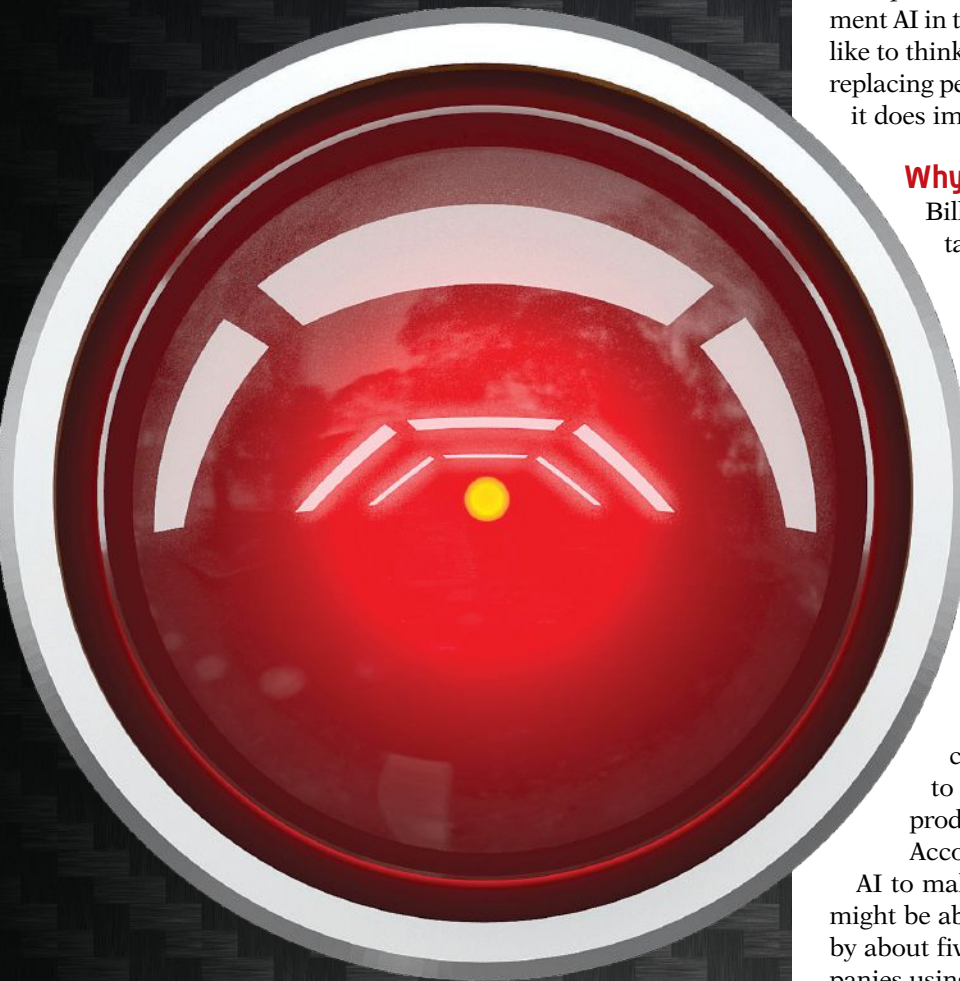


Artificial intelligence: Fact versus fiction

The reality of AI is often
at odds with what we see
in popular culture

Artificial intelligence:

Fact versus fiction



The reality of AI is often at odds with what we see in popular culture

BY DENNIS FURLAN

Much of our perception of artificial intelligence (AI) comes from movies where machines end up declaring war on humanity. Closer to home, and in this century, we have smartphone assistants and home gadgets that take orders from us — kind of. However, the reality of AI is a lot different from this “who’s in control” debate people like to have, and it’s a reality that’s important for how we grow and prosper as a society.

Julien Billot is CEO of Scale AI, an AI supercluster headquartered in Montreal that helps companies implement AI in their business processes. As much as people like to think AI is about self-driving cars or computers replacing people, the reality isn’t nearly as exciting, but it does impact our lives in more tangible ways.

Why AI matters

Billot says, “Artificial intelligence is so important because it helps Canada close the productivity gap we have with other countries. Right now, Canada is a leader in AI research. However, other countries, such as the United States, take that research, and implement it in practical ways that make companies more efficient and productive.”

Billot is essentially referring to using AI to analyze business processes and make them more efficient. He says that this is the tangible use of AI versus our perceptions from science fiction. From assessing business demand and streamlining manufacturing systems to setting retail prices and determining supply-chain efficiencies, AI is and should be used to make companies and our economy more productive.

According to Billot, “So, one company using AI to make various improvements to its processes might be able to increase revenues, or decrease costs, by about five to 10 per cent. But, if you have all companies using AI in the way that it can most benefit us, we’d have a significantly more productive and prosperous society. That’s why governments across Canada are investing so heavily to turn Canada AI research advantage into practical results.”

This may not seem as exciting as Arnold Schwarzenegger coming back from the future, and that’s because the perception of AI is often at odds with what AI really is. Cameron Schuler is chief communications officer and vice-president, Industry Innovation with the Vector Institute in Toronto that helps foster research in artificial intelligence. He believes, for various reasons that people’s images of AI, and even their fears, are not fact-based.



The port logistics optimization tool at the Port of Montreal is just one practical tool that increases the productivity of Canadian businesses without “taking over” for people.



Julien Billot, CEO of Scale AI.

It's not about humans versus machines

Schuler says, “Well, there are a couple of things to keep in mind. First, the amount of computing power needed for a machine to in any way mimic what it is to be human is not only way beyond us today, but I don't think we'll ever get there. But, also, what it means to be human, I think, is something that is way beyond computers, no matter how powerful they are.”

In fact, the reality of AI is so much more mundane than what Hollywood depicts that Billot likened the situation to digital adoption by companies a few decades ago. He says, “Back in the 90s, businesses started entering the digital age. However, even before the pandemic started, too many companies were still not using the cloud, for example.”

And that's how Billot sees the adoption of AI today. He says, “Right now, there might be a small percentage of companies using AI to make their businesses more productive. As time goes on, that percentage really needs to be progressively higher so that, in a few decades, it becomes the norm, just like digital is today, and we have a more productive and prosperous country.”

Billot also balks at the suggestion that AI is taking over for people. Just as using a spreadsheet is using a tool that can be performed much more efficiently than a person using a pencil and paper, using AI is simply using a tool that makes companies more efficient. He says, “You still have people programming the AI, and people using the information provided by AI to assess business needs. It helps people and businesses.”

AI's practical applications

The kinds of projects Scale AI is currently supporting provide a framework for what the technology can currently do for businesses — now, and in the future. Current examples include port logistics optimization, supply chain forecasting, home-care modernization, demand forecasting, quality control and machine analytics. And the types of AI tools used in the economy can only grow as development and implementation continue to grow.

And research organizations such as the Vector Institute are part of Canada's world-leading AI knowledge base that constitutes the foundation for further growth in the sector. Both the Institute and Scale AI receive considerable investment from all levels of government, and that's because Canada really can't afford

to lag behind in the field.

Schuler says, “Why is AI so important? That's a really good question. The reality is that that's where the world is headed. And if we don't try to stay ahead, we'll lose opportunities that are vital to our country's interests and our wellbeing.”

Another aspect of AI is how people can get involved in this sector, given that it will have a more prominent role in society as time goes on, regardless of how a person feels about this. Both Billot and Schuler say that a master's degree or higher is actually needed to program AI. However, in other areas, people of various educational backgrounds can get involved. ➤

There might be a small percentage of companies using AI to make their businesses more productive.



A tour of Kruger Products in Sherbrooke, Quebec, where the AI Digital Twin helps the tissue and towel manufacturer improve processes across many key operations.



Scale AI holds an event called AI in Action in which members of the Canadian AI community gather together to discuss and promote a vital Canadian economic sector.

A world of opportunity and learning

Billot says, “Well, first of all, what many people don’t realize is that traditional information technology is often used in support of AI efforts. So, anyone in one of these support efforts of various educational levels can definitely be a part of the broader world of AI.”

But Billot points to what he considers an even more important educational effort in AI. He says, “People in

business or other practical endeavours really need to learn how AI can be used to improve their organizations. It’s one thing to know that AI is out there. It’s another thing to know how to use it for the sector you’re in. There really is no lack of learning opportunities in AI.” 📖

Dennis Furlan is a contributor with The Ontario Technologist.

2022 SALARY SURVEY

ATTENTION MEMBERS AND COMPANIES! OACETT WILL BE RELEASING ITS 2022 SALARY SURVEY IN MARCH.

- All members who participate will be entered into a draw to win one of five \$200 gift cards.
- All companies who participate will get access to invaluable salary and compensation information.
- Be sure to check your emails from Environics in March 2022 to participate.

*All member and company data will not be accessed by OACETT and is collected over a secure platform.