

TOP OF MIND

THE INTACT INSURANCE NEWSLETTER FOR BUSINESS INSURANCE BROKERS



ISSUE NUMBER 7: ARTIFICIAL INTELLIGENCE



SOMMAIRE

TOP OF MIND

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THE INTACT INSURANCE NEWSLETTER FOR BUSINESS INSURANCE BROKERS

Welcome to another edition of TOP OF MIND.

In this issue, we look at the growing interest in artificial intelligence with a feature article by our contributor Stéphane Desjardins, who talks about artificial intelligence. The story includes an interview with Jean-François Lessard, Deputy Senior Vice President and Chief Data Officer at Intact Insurance.

Happy reading.



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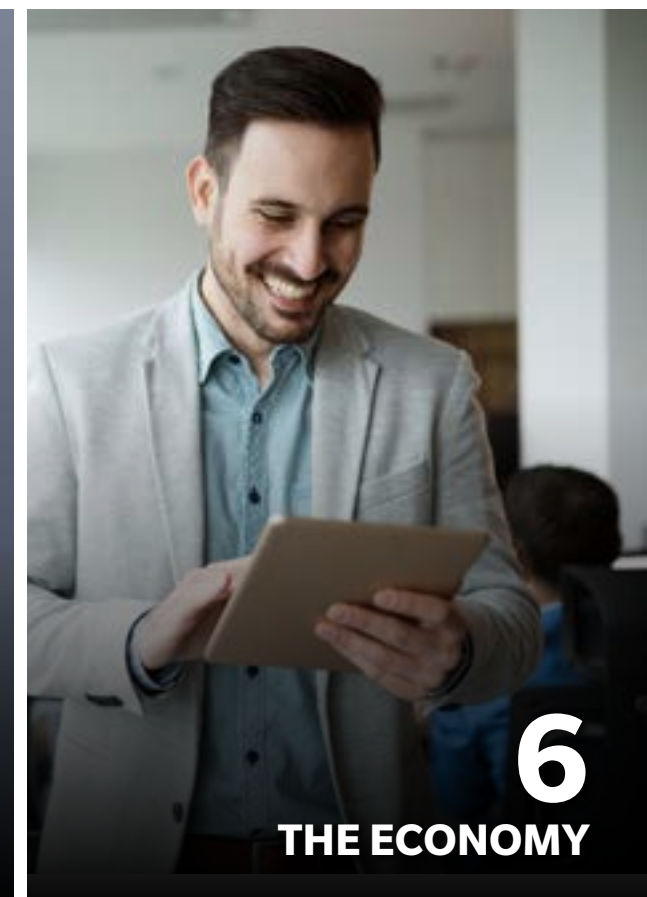
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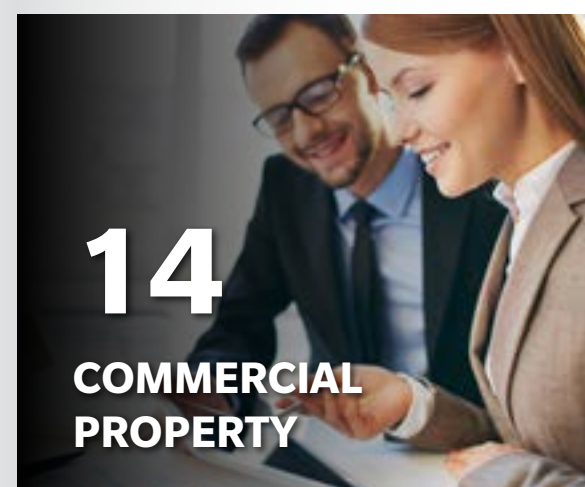
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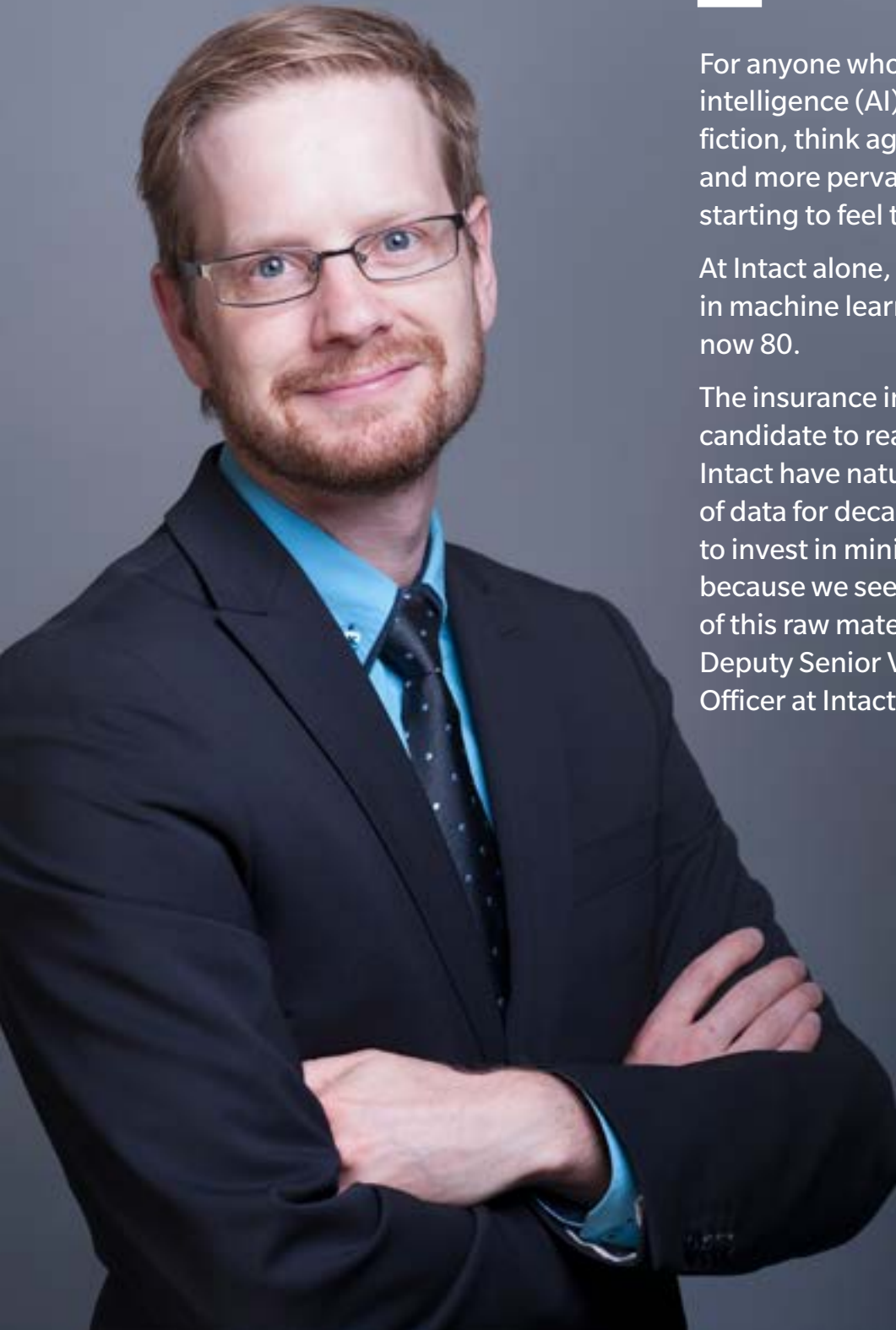
COMMERCIAL AUTO INSURANCE
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Economic Indicators

INDICATORS	REFERENCE PERIOD	CHANGE
Growth in Gross Domestic Product (GDP, Canada)	July 2019 VS July 2018	2.8%
Increase in Consumer Price Index (CPI, Quebec)	September 2019 VS September 2018	2.2%
Unemployment Rate (Quebec)	September 2019	4.8%

Sources: Statistics Canada and Institut de la statistique du Québec

INTERVIEW WITH JEAN-FRANÇOIS LESSARD



For anyone who believes that artificial intelligence (AI) is still in the realm of science fiction, think again! It's already becoming more and more pervasive in the industry, and we're starting to feel the impacts.

At Intact alone, there were five people working in machine learning two years ago. There are now 80.

The insurance industry is actually the perfect candidate to reap the benefits of AI. "Insurers like Intact have naturally been managing mountains of data for decades. There's a sense of urgency to invest in mining and managing big data, because we see all the unexploited potential of this raw material," says Jean-François Lessard, Deputy Senior Vice President and Chief Data Officer at Intact.

What will AI change for insurers? Lessard compares this current transformation with the computer revolution of the 1970s, followed by microcomputers and then the Internet. Artificial intelligence will take hold just as gradually and we'll mainly see the applications in customer service. "People don't realize that AI is already at play in auto insurance with UBI, for example," says Lessard, who is leading AI projects throughout Intact.

Overall, AI is simplifying business processes. It will accelerate quotes, by automatically entering and processing some of the information. For example, brokers could reduce the number of questions for customers from 50 to 10. "We could use satellite images to obtain information on fire protection, the location of fire hydrants or stations, building floor space, whether they're located in high-risk areas, and other information. This would free up a lot of time for brokers and customers, allowing us to focus on specialized, high-value-added information," says Lessard.

For underwriting, AI will allow insurers to introduce expert systems that suggest additional questions on certain coverages, based on geography and customer activity, like a checklist that covers all possible angles.

Another example: AI can accelerate the claims process by automating potential fraud models to avoid certain investigations. Ultimately, AI means better customer service, coverages and rates. "There are certain principles in our industry that go back to the 1800s and thanks to technology, we're taking them even further," adds Lessard.

Intact has also just invested in two new research chairs at Université Laval: **the Natural Sciences and Engineering Research Council (NSERC)/Intact Financial Corporation Industrial Research Chair in Machine Learning for Insurance and the Educational Leadership Chair (ELC) in Big Data Analysis for Actuarial Science – Intact.**

"These investments allow us to stay up to date on the latest technological developments and to support scientific research. Researchers get access to a substantial amount of data in specific fields, and we get to know leading talent within a very competitive global recruiting environment."

ARTIFICIAL INTELLIGENCE IS ALREADY IMPACTING OUR LIVES

Stéphane Desjardins



Artificial intelligence (AI) has already found its way into the business world. And it's only just the beginning.

AI has always played a big role in science fiction. In Fritz Lang's 1927 film *Metropolis*, a female robot incites a rebellion among oppressed workers. In the *Star Trek* series that began in 1966, Captain Kirk and his crew maintain constant communication with Starship Enterprise's supercomputer. And in 1968, in *2001: A Space Odyssey*, the supercomputer HAL 9000 becomes deranged and kills an astronaut, believing humans incapable of carrying out its mission. Fifty-seven years after *Metropolis*, AI-equipped robots turn against their human creators in *Terminator*.

In reality, you already use AI when you order pizza; ask a bank, insurer or Google for information; use Facebook or any technical support live chat; or talk to a virtual assistant like Siri, Alexa or Google Home.

Even better: assistants and apps can now detect our needs, behaviours and habits and tailor their recommendations accordingly. Now, there are even robotic traffic cones with built-in GPS!

But we're only in the early days of AI, which will soon revolutionize our lives as much as the Internet has. According to Erik Brynjolfsson, a professor at the MIT Sloan School of Management, AI and related technologies have already outperformed humans in many areas, and that will only accelerate by 2030. He believes AI will eliminate poverty, massively reduce the effects of certain diseases and significantly improve global access to education. Other experts believe, however, that AI will only widen the socio-economic gap and lead to greater abuses of power and increased surveillance of individuals, as we're seeing in China, with its "social credit system" that seems straight from the pages of George Orwell's 1984.

[Read more →](#)

A very big market

According to McKinsey, global investments in AI were estimated at between US\$26 billion and US\$39 billion in 2016, dominated by tech giants like Google and Baidu. About 60% of worldwide spending on AI is focused on machine learning, and the annual growth rate for global AI investments is 40%.

The high-tech, communications and financial industries are the biggest adopters of AI. Manufacturing, construction and government are lagging behind, while tourism, healthcare, logistics and transportation, media, retail, auto manufacturing and education are somewhere in between.



In terms of return on investment, the biggest gains from AI are in technology, media and professional services, according to McKinsey and Deloitte. Financial services and insurance are near the median, notes Deloitte.

According to IT research and advisory company Gartner, it takes time for businesses to deliver AI projects, given the massive amounts of data required. Managers need to make sure they're learning the right approaches, says Gartner, which predicts that within four years, 40% of infrastructure and operations (I&O) teams will use AI-augmented automation, resulting in higher productivity. But not all organizations are progressing at the same pace. According to Accenture, 77% of executives at the biggest global insurers say that artificial intelligence is advancing faster than their organization's pace of adoption. A 2017 McKinsey review of more than 160 use cases showed that AI was deployed commercially in only 12 percent of cases. There is a growing gap between early adopters (20% of AI-aware firms say they are adopters) and other businesses, which gives early adopters an undeniable competitive advantage. McKinsey adds that 41% of organizations are still undecided about the benefits of AI, but that early adopters see AI as a way to increase their revenue or market share.

What are the barriers to entry? Managing risks (especially cybersecurity), the complexity of integrating the technology, hiring talent, but, most of all, the private or strategic nature of data.

[Read more →](#)

Where will we see AI?

AI will be a big part of large organizations' technology infrastructures. Here are some examples Gartner provides: AI can anticipate when an assembly line part needs to be replaced, forecast when certain items will sell out, manage supply chains more effectively, predict the behaviour of certain in-store shoppers, identify certain credit or claims management risk factors, manage part of a quote process, and parse legal texts.

Keep in mind: AI will have a bigger impact wherever it is needed to emulate human expertise and interaction, rather than simply adding a layer of automation.

McKinsey says, however, that the challenge of labelling data (including cultural biases), the difficulty of obtaining massive data sets (ethical, regulatory or technological limits) and the perceived lack of transparency could impede AI adoption.



AI still doesn't have a good reputation. Some fear loss of control over their lives, especially their privacy, the misuse of data for profit or power, the increased dependency on machines, a reduced capacity to think for ourselves, the emergence of killer robots, and even just massive job losses, as Pew Research Center noted in a December 2018 report. Gartner, however, sees the opposite happening, predicting that by the end of the year, **AI will create more jobs in the U.S. (2.3 million) than it eliminates (1.8 million).**

We're ahead of the game

If there's one area where Quebec is far from lagging behind the superpowers, it's artificial intelligence. Montreal has become a global hub for AI, with some predicting that it will soon become the Silicon Valley of artificial intelligence, similar to how it's developed a reputation as a world leader in the video game industry. For now, some players, like the United States, China and Saudi Arabia, are global leaders in AI spending, but Montreal has a unique and enviable ecosystem that's recognized around the world, as noted by Forbes magazine in 2017. In 2018, *Wired* magazine called Montreal "the world's AI startup powerhouse," and noted that according to PwC Canada, in 2017 the city had raised more than US\$800 million in venture capital investments across 63 major deals.

Leading the wave is Yoshua Bengio, global superstar, Université de Montréal professor and cofounder of Element AI (which is dedicated to leading-edge AI research). He is the most oft-quoted computer scientist in

the world, with more than 500 publications and 135,000 citations. A pioneer of deep learning, Bengio is the co-author of the book *Deep Learning* (MIT Press, 2016), considered the bible of deep learning and praised by Elon Musk. He is also associated with the Montreal Institute for Learning Algorithms (MILA), an inter-university lab led by Université de Montréal and McGill University. Also located in Montreal is the Institute for Data Valorization (IVADO), an initiative of HEC Montréal, Polytechnique Montréal and Université de Montréal, with more than 1,000 researchers.

The Montreal ecosystem attracts hundreds of millions in AI investments and talent from around the world. As an example, Element AI gets 4,000 résumés a month. Montreal has a lot of strengths to draw on, including deep learning, machine language, cybersecurity, data protection and ethics. The city has 92,000 employees, 11,000 university students and over 300 doctoral researchers dedicated to AI (the highest academic concentration in the world). Google, Facebook, Microsoft, Samsung and Thales all have Montreal-based AI labs. Some star AI researchers might go unrecognized in the Mile-Ex neighbourhood, but they're well-known on the global AI stage. As NewCities, a think tank dedicated to improving life in cities, notes, "Montreal is winning the AI race."

[Read more →](#)

KEY AI TERMS

Artificial intelligence (AI)

an area of computer science that emphasizes the creation of intelligent machines that work and react like humans.

Machine learning

an application of artificial intelligence that enables computers to learn by themselves.

Deep learning

a subset of machine learning in AI that has networks capable of learning unsupervised from data that is unstructured or unlabeled.

Artificial neuron

a mathematical function based on a model of biological neurons.

Perceptron

a mathematical model of a biological neuron designed for supervised learning.

Deep neural network

an artificial neural network with multiple hidden layers that increase the network's ability to learn.

Turing test

a test performed to determine a machine's ability to exhibit intelligent behaviour. The basic concept behind the test is that if a human judge is engaged in a natural language conversation with a computer where they cannot reliably distinguish machine from human, the machine passes the test.

SOME CURRENT AND FUTURE AI APPLICATIONS

Increase income tax refunds by helping identify possible deductions based on the taxpayer's personal situation

Identify security threats by analyzing surveillance images

Quickly identify accident victims and their medical conditions in emergency situations

Screen job applicants more effectively based on their résumés

Keep fleets of taxis or self-driving ride-share cars in constant circulation to reduce wait times

Operate fleets of self-driving trucks thanks to traffic congestion monitoring systems that accelerate just-in-time delivery

Predict if a script will make a movie a commercial hit or failure

Operate autonomous delivery robots in neighbourhoods, on campuses or in buildings

Develop personalized drugs based on patients' genetic profiles and lifestyle

Keep the elderly or those with disabilities at home longer through assisted management (hygiene, security, food, drugs and ambient temperature)

Improve cancer detection methods

Provide instant translation for work or travel

Enable better forecasting of climate change and its effects



THE RIGHT DATA = THE RIGHT PROTECTION

Data plays a huge role in today's world, and not just in artificial intelligence. When it comes to insurance, having current information in the policy file is vital for making sure your customers are properly protected. The needs of their business will change over time. As a broker, you have an important role to play in providing your clients with expert advice on their specific needs.

By using up-to-date information and listening to your customers, you can provide the right protection and avoid big problems. In the event of a loss, being underinsured could have disastrous consequences. As their insurance professional, you can prevent trouble by adjusting their coverage to reflect the current situation and make sure they have sufficient coverage.

DID YOU KNOW?

A study found customers were underinsured in 37% of large losses. This can be avoided if your customer's file contains the latest information.

A STRATEGY TO KEEP YOUR BOOK OF BUSINESS VIABLE

Keeping your customers' information accurate and up to date is essential for providing them with an outstanding experience. The underwriting strategy we have put in place enables you to:

obtain more accurate information and offer coverages that truly reflect the risk the customer represents

adjust coverages and limits to meet their real needs and avoid problems in the event of a claim

update the right policy with the right information at the right time, whether at renewal or when a policy change is made

offer a premium adjustment when there is a midterm policy change, when your customer will be more receptive



LIABILITY INSURANCE, REFRESHED AND SIMPLIFIED

After last year's rollout of *EDGE Complete*, Intact Insurance took another big step forward in 2019, with a new, simplified CGL offering that gives your business insurance customers more flexibility and choice.

CGL Max and Liability *EDGE*

YOUR BUSINESS INSURANCE CUSTOMERS CAN NOW ENJOY THE COMMERCIAL GENERAL LIABILITY – MAX FORM, PROVIDING BASIC COVERAGE AND THE OPTION TO ADD THE LIABILITY *EDGE* EXTENSIONS. THEY GET:

Simplified, clearly explained products that offer expanded coverage

13 optional Liability *EDGE* extensions, with three levels of coverage (1.0, 2.0, 3.0) to meet their business's needs, regardless of size or industry

The same coverages nationwide (if they do business in more than one province), which simplifies the claims experience.

Want to learn more about these products? Open the [Toolkit](#) for details of the 13 Liability *EDGE* coverages.



A DIVERSIFIED COMMERCIAL AUTO OFFERING

Your business insurance customers can count on the range of Intact Insurance products to cover their risks. We cover individually rated commercial vehicles, trucking companies, fleets and garages.

Here are some of the offers that can make a big difference for your customers:

Good Record Protection Commercial Vehicle:

forgiveness for two accidents, with no premium increase for claims in a 5-year period;

Roadside Assistance

up to four calls per year, for services including towing up to 50 kilometres, emergency gasoline delivery up to 10 litres, or a battery jump-start;

Synchro Insurance for Business

by combining their commercial property and auto coverage, your customers can save up to 10% on their auto insurance, pay just one deductible on a claim, and pay their premium in instalments.



For an overview of all our commercial auto insurance products, see the Commercial Auto **Star Features chart**. (available in French only)



NEW FEATURES FROM SPECIALTY SOLUTIONS

Equipment Breakdown Insurance

Intact Insurance offers **Equipment Breakdown Insurance** to get your customers back up and running quickly after their equipment sustains sudden and accidental damage. Coverage is available as a stand-alone policy, or it can be added to any Intact Insurance business package policy.

From small retail stores to large manufacturing plants, virtually every type of business has an equipment breakdown exposure. All businesses use some form of electrical, mechanical, pressure or electronic equipment as part of their regular operations. This insurance is not just designed for production machinery.

WITH INTACT INSURANCE, YOUR CUSTOMERS BENEFIT FROM:

Specialized equipment breakdown underwriters

Broad wordings and extensions that address modern business exposures

Experienced loss prevention consultants to help them identify and mitigate business risks

24/7 Claims Service

To find out more about the available coverages and extensions, refer to the [Equipment Breakdown tip sheet](#).

New Excess Liability Wording

OUR EXCESS LIABILITY WORDING GIVES YOUR PROFESSIONAL AND MANAGEMENT LIABILITY CUSTOMERS:

insurance limits above and beyond the business's primary liability policies with other carriers

excess coverage up to \$25M when the underlying liability limits have been exhausted.

WE WERE THERE!

33rd Salon de l'agriculture: another successful event

Intact Insurance participated in the Saint-Hyacinthe Salon de l'agriculture again this year. Notable guest speakers included businessman, political columnist and politician John Parisella, who spoke on current political and economic realities. Our farm insurance professionals and business development representatives were there with brokers to answer visitors' questions and share their expertise. We enjoyed good visibility and look forward to returning to the agricultural fair in 2020.



Alexandre Lagacé, Specialty Solutions - Farm, Intact Insurance, Édith Grondin, Manager, Marketing & Distribution, Intact Insurance, John Parisella, Senior consultant, Strategy, NATIONAL, Steeve Lavoie, Business Development - Account Manager, Intact Insurance

HOP! 2019 retail trade show

HOP! is the biggest retail trade show in Quebec. There were many well-known guest speakers at the 2019 edition, including scientist and explorer Jean Lemire. We were there as an exhibitor, and also as a Gold Partner of the event. We participated in a panel discussion on cybersecurity: Yan Lacoursière, a loss prevention consultant and an expert on the subject, took the opportunity to break things down for attendees.



Mathieu Dugal, Panel moderator and moderator and host for Radio-Canada, Yan Lacoursière, Senior Loss Prevention Consultant, Intact Insurance, Gabriel Tremblay, President, Delve Labs