

PART III

# FAST FORWARD

## ADAPTING TO A DISRUPTIVE FUTURE

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## Adapting to a disruptive future

**W**elcome to the third installment of Fast Forward. When we first launched Fast Forward in partnership with Imperial Oil Limited, I wrote that our industry is on the cusp of great change. Looking ahead I saw an industry whose current technologies, regulations and human resource practices would be significantly different within a decade. The first two installments probed these changes and how they will transform the way we work.

This year we greatly expand the project with Fast Forward Part III: Adapting to a disruptive future. This will be the first of three supplements all with the focus on the strategies and practices motor carriers and owner/operators will require to adapt

and thrive in the future that will reshape our industry.

I hope you enjoy reading Fast Forward Part III. I also encourage you to turn to the special Knowledge Centre entitled An Inside Look at the Future of Trucking we created for you on [www.trucknews.com](http://www.trucknews.com) for more news stories, features and videos on the subject. Finally, I hope you come to our Surface Transportation Summit on October 11 where I will host a special panel of experts discussing the Future of Trucking and watch the educational videos we will generate from it.

**Lou Smyrlis**, Market Director, Newcom Trucking Group

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# WHAT WILL BECOME OF US?

BY JAMES MENZIES

## DRIVERS CONSIDER THE IMPACT TECHNOLOGY WILL HAVE ON THEIR PROFESSION

**A**I Goodhall spends a lot of time thinking about automation, artificial intelligence (AI), and the impact it will have on the trucking industry. As a professional driver of nearly 20 years, he has plenty of time to think about such things while behind the wheel.

“I think artificial intelligence and automation are moving so quickly right now, from a cultural and social point of view and a political point of view, that we can’t keep up with it,” the London, Ont.-based driver said in an interview while waiting to be loaded just east of Fargo, N.D. “It’s going to impact all of us, way beyond

trucking. It’s going to impact us, for sure, and it’s going to change the way we do our jobs. Whether (our jobs) exist or not in 20 years is a coin toss right now.”

Since global truck manufacturer Daimler first demonstrated its Highway Pilot autonomous driving system in 2014, there has been a surge of so-called “disrupters” arriving on the scene, racing to be the first to bring to market truly driverless trucks. This wasn’t Daimler’s vision. Its Highway Pilot autonomous driving system steers, brakes and accelerates without driver input, but the intent was always to have a driver at the controls, ready to >

take over when needed, much like the pilot of a commercial airliner. Daimler saw autonomous trucks as a way to enhance the driver's job – not eliminate it.

But since then, Otto – now owned by Uber – has arrived with a retrofit kit that can convert commercially available trucks into self-driving vehicles. It even delivered a load of Budweiser in Colorado, while the truck's driver looked on from the sleeper berth. San Francisco, Calif.-based Starsky Robotics has its own spin on automating trucking. It's actively testing technology that will allow a truck to drive itself on the highway. When it's time to exit the interstate and complete a delivery, a professional driver remotely takes over the controls from a central office and steers the truck to its final destination. These drivers would be responsible for several trucks – maybe even an entire fleet – all from a central office, much like a dispatcher is today.

In a Bloomberg Businessweek article published in June, Starsky Robotics founder and CEO Stefan Seltz-Axmacher, painted an idyllic picture of professional drivers working regular shifts out of comfortable, climate controlled, centrally located “driver centers.” He told Bloomberg his vision to disrupt the trucking industry has the ability to make the lives of the 3.5 million people working as truck drivers in the U.S. “a lot better.”

But drivers, for the most part, remain skeptical. Goodhall believes AI and autonomous vehicles have the potential to make his job obsolete, but there are many hurdles to overcome, and he doesn't think it will happen before he retires in 10 years or so. Asked what aspects of his job will be the most difficult for technology to take over, he said, “The tasks where we have to think for ourselves. Things change so rapidly out here. It's not so much getting the truck down the road – they're addressing that – it's what happens moment to moment, when the load changes, or the customer changes.”

Human interactions, noted Goodhall, are still a big part of the job.

Guy Broderick, driver training and recruitment supervisor with Apps Transport Group, agrees.

“A lot of people don't realize that truck driving really is a customer service-oriented job,” he said. “For the most part, the driver is the face of your company. When a delivery shows up (shippers) want to deal with a person. What are they going to do if there's damaged freight? What are they going to do if it's the wrong shipment or the wrong address?”

David Henry, a Manitoba-based professional driver who hauls oversize loads in Canada and into the U.S. Midwest, doesn't think he can be replaced by automation.

“I think there's always going to be a need for drivers,” he said. “There are going to be some cool things coming out that I think, if drivers embrace them, will help them. But, I think that in North America – especially in Canada – it's going to be very hard



for technology to get rid of drivers.”

Henry said technology so far has enhanced his life as a professional driver, and he feels emerging technologies will continue to do so – he's not worried about it eliminating his job.

“The technologies we've gotten a hold of so far have been good for me, and I think in the future, some of the stuff that's coming out will benefit me as well,” Henry said.

He said platooning – where trucks travel in a tightly formed pack to reduce wind resistance and improve fuel economy with braking and acceleration controlled by the lead truck – and autonomous driving on long stretches of highway, can provide a more relaxed driving experience. Such technologies also have the potential to improve safety, which will reduce stress on drivers.

“If the vehicle won't allow drivers to be stupid, then that gives other drivers some peace of mind,” he said. “I think with the mapping and planning technologies and collision mitigation technologies coming out, we'll be more relaxed behind the wheel and we'll be able to handle the world of trucking with less stress. Our life is going to be better.”

Justin Bailie, co-founder and president of transportation management system RoseRocket, which aims to automate the role of dispatcher, thinks the push to replace humans with machines will come from retailers, and will be difficult for trucking companies to resist.

“If the cost of shipping goods becomes unsustainable for these large retailers, and they continue to drive costs down further and put more constraints on trucking companies, then they'll be more motivated to reduce costs,” Bailie said. “And if the technol-



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**For guys like me, who've been doing it for years, the enjoyment is in the driving. It's in the rolling down the interstate, it's in being in control of the vehicle, it's in the doing.**

—AL GOODHALL

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ogy's available to get rid of the labor cost of the driver, then I feel trucking companies will be motivated to do so. I think market pressure will be a huge determining factor in this.”

Trucking companies have already deployed a plethora of currently available technologies on the truck itself to reduce operating costs. The next step to improving efficiency will be to automate aspects of their operations, Bailie contended. And this may include replacing drivers.

“When we start thinking about how to become more efficient as an organization and how to grow profitability inside of transportation, we really need to look at what's happening inside the four walls,” he said. “There is a lot of opportunity for automation and really building a better business inside the four walls at the terminal. This is where a lot of the quicker wins can happen, through streamlining and scaling and automating a lot of redundant, mundane tasks. That's the quickest way to new levels of profitability. This might be the final bastion for your business. You've unturned every other stone, the shippers still want cheaper rates. So, where else are you going to go?”

If technology doesn't replace drivers altogether, could it help attract a new breed of professional driver? The industry has struggled to attract young people, and Goodhall thinks that will continue to be the case. He also thinks today's driver will resist relinquishing control to the electronics, even when traveling down the highway – considered by some to be one of the more mundane aspects of driving and the easiest to automate.

“For guys like me, who've been doing it for years, the enjoyment is in the driving. It's in the rolling down the interstate, it's

in being in control of the vehicle, it's in the doing,” Goodhall said. “I frequently turn everything off and the best part of the job is rolling from point to point and dealing with the challenges that come up. I don't call that mundane. If you took that away from me and I just had to sit in the seat and watch the truck drive, that's mundane.”

Henry thinks the future driver will need to be willing to embrace technology. He draws comparisons to the muscle-laden crop duster pilots of the 1940s and '50s, who were seen as the cowboys of the skies, required to manhandle their planes.

“Nowadays, because of electronic controls, just about anybody can (physically) fly a plane,” Henry said. “But you have to be very technologically advanced. I think we are getting the same way with trucking. In the old days, you had to be tough, strong, and able to fix things on the side of the road. They liked taking the farm boys and putting them in the truck. In the future, it's going to be the guys who love gaming, the electronics side of things, and can sit on the side of the road and diagnose their truck using the computer instead of popping the hood and checking for oil.”

Broderick agrees that fleets will have to change their recruitment tactics, targeting more tech-savvy individuals. At Apps, drivers are given a handheld device that's currently used – or soon will be – for everything from recording driving hours, dispatching loads, inspection reports, and reporting cargo damage.

“So, from a hiring point of view, we want people that are able to understand how to use technology,” Broderick explained. “We just cannot hire people that cannot bring that kind of technology mindset into the company.”

# DECIDING FACTORS

Emerging technologies hold plenty of promise, but which ones are right for you?

**T**he people who market different technologies are quick to highlight features and benefits. There are promises of higher productivity, better fuel economy, optimized performance and more.

But every fleet has a limited number of resources. To put it another way, there's only so much money to invest in technology of any sort.

Finding options that are a perfect fit – and meet the greatest need -- usually comes down to collecting related data, whether that involves dedicating staff to the tests or sharing insights with peers at trade shows and conferences. Montreal-based C.A.T., a fleet with 350 power units and 800 trailers, has an internal team dedicated to exploring new technologies. Toronto-based Carmen Transportation, with 80 power units and 280 trailers, relies on third-party verification services.

“If it's relatively complicated, we want to make sure it gets PIT tested,” says Carmen president Vince Tarantini, referring to the neutral testing organization.

He's not the only fleet manager to refer to the service. “When I get phone calls from people who tell me, ‘We have a system that will save you 20% on fuel’, I ask those guys: ‘Have you ever heard of a company named PIT?’” says Ken Rosenau, president of Edmonton-based Rosenau Transport, which has 450 power units and 1,200 trailers. If PIT has tested the product, he might have a look. If not, he won't even bother.

Not every company is willing to be a guinea pig to test cutting-edge technologies, though.

Robert Bleier, Sutco Transportation's vice president, is more than willing to wait for others to prove the value of

emerging technologies. “What we try to do is find technology or things that have been proven,” he says, referring to the 85-truck fleet based in Salmo, British Columbia. That might mean waiting a couple of years for a case study that can be used for a financial analysis, leading to the hard target for a Return on Investment.

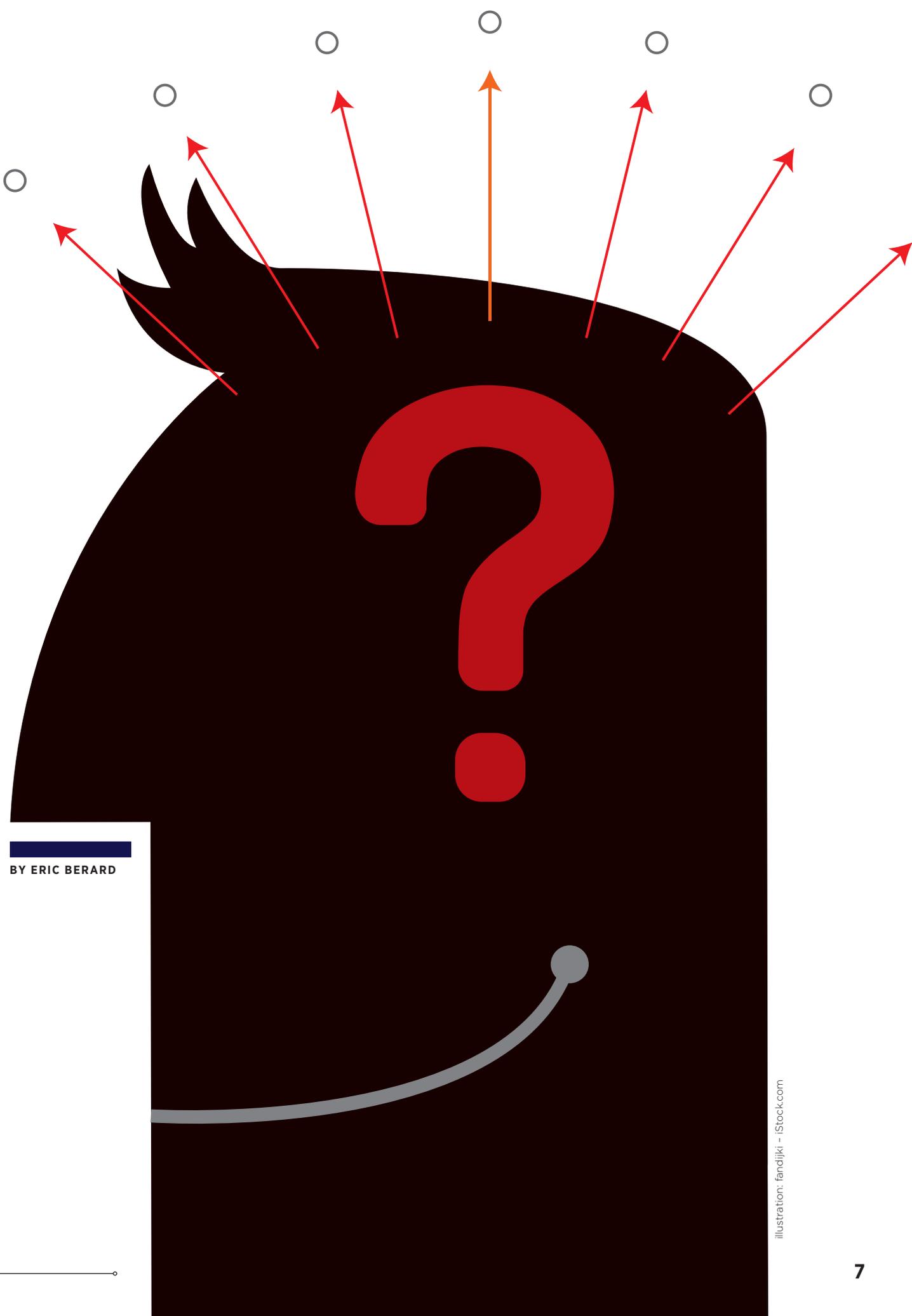
No matter what approach is accepted, these fleet managers stress that the value of verified data – and not empty promises – will be the key to success. And it applies to everything from natural gas engines to wide-base tires, automatic tire inflation systems, aerodynamic add-ons, trailer tails, disc brakes, or on-board document scanners. The same goes for dash cams or Electronic Logging Devices.

## Timing is everything

The hardest decision after that is deciding on whether the timing is right, and whether it makes sense to be an early adopter.

“It's a difficult balancing act. You want to be early but you don't want to be too early,” says Sutco's Bleier. Early adopters can face the risk of systems that fail to meet expectations. There tends to be higher costs for the first adopters, too. Wait too long, however, and competing fleets will secure a competitive advantage that can be offered to customers and drivers alike.

It's about making the business safer, increasingly profitable, and more competitive, Bleier says. A central portal where customers can locate loads or electronically pay invoices, for example, could be a valuable tool for customers, he says. It could also help to recruit and retain fleet personnel who want to work for a progressive company. >



BY ERIC BERARD

illustration: fandjiki - iStock.com



**If it's a technology that's going to have an impact on their lives, don't be afraid to give them six months or nine months to get used to it, to do a pilot, don't rush them.**

—ROBERT BLEIER

And few changes will have a better influence on profitability than upgrades that promise better fuel economy. Fuel, after all, remains the highest operating expense after wages.

“As we get to three or four bucks a [US] gallon, you don't measure fuel efficiency by half mile to the gallon. Now you're down to the tenth of a mile per gallon,” says Tarantini.

The challenge is that there are many potential ways to achieve such gains, and each has its own pros and cons that need to be weighed in the context of specific operating conditions.

Wide-base tires achieve better fuel economy through lighter weights and lower rolling resistance. But they can also be difficult to source in specific areas, leading to extra downtime during breakdowns along specific lanes. An automatic tire inflation system might be needed to offset that risk. Trailer skirts and boat tails improve aerodynamics, but deliver their benefits when fleets spend most of their times at highway speeds. Disc brakes offer shorter stopping distances, complete with Preventive Maintenance procedures that can be completed in minutes, but they come at a higher price tag than their drum-based counterparts. Each aspect needs to be considered along with the future goals.

“All of that technology has to create uptime and reduce downtime. It has to create efficiencies and, ultimately, defer maintenance costs,” says Carmen's Tarantini.

### **Driver acceptance**

Some of the most important pros to consider will be the drivers who move equipment up and down the road. Push technologies too quickly or too far, and veteran drivers may choose to work elsewhere. That makes related rollout schedules and training an important part of any plan to introduce new technology.

“I heard it already from some of our drivers that we're putting in [Electronic Logging Devices] because 'Big Brother' is going to be watching. Well, that's not the case,” Rosenau says. “We want to make sure it's driver-friendly, that it's here to protect the driver, and we want to make sure that we are the safest guys on the route.”

Daniel Goyette, president of C.A.T., says younger drivers tend to be the quickest to embrace new technology, as if they were born to use it. But he still remains confident that more-experienced drivers can be converted.

“If a good training is offered before implementation, there's going to be a better acceptance. And when people master a

new technology and benefit from it, there's no way you could get them to go back to the old ones,” he says.

Pilot projects offer an effective tool for such rollouts. It's where fleets can compare different approaches or brands in a real-world setting. And drivers can be more likely to embrace new technologies they were involved in assessing.

“We had a number of drivers testing different [GPS and telematics] systems in different applications, to make sure it works, before we make any commitment to purchasing it,” Bleier says.

### **Return on Investment**

Any acceptable Return on Investment (ROI) can vary depending on the type of technology being considered.

“If it's software-related, I like to see an ROI within two years. Because it's moving so quickly now,” says Tarantini. For its trailer aerodynamic tails, Carmen Transportation was expecting an ROI of one or two years. “But it turns out it was less than one year. That exceeded our expectations.”

Sometimes the advantages are more difficult to quantify. For example, what's the value of an accident that didn't happen? What's the value of happier drivers and happier customers?

Goyette refers to the iPad-like tablets his drivers now use to complete pre-trip inspections, feeding the data directly into a central computer rather than using and scanning paper forms. “It does pay, yes. But it's very difficult to quantify since we already made pre-trip inspections before. Do we actually have less mechanical failures that occur on the road solely because of the tablets? Difficult to tell. We can't put a number on this,” he says.

### **Financial support**

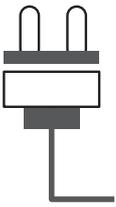
All four of these fleet managers agree that, when it comes to investing in emerging technologies, carriers should also explore government programs, tax breaks, subsidies or any form of incentive that could help finance such a venture – even if the paperwork seems onerous.

And take the time to make the right decisions, especially when it comes to encouraging teams to embrace the new offerings.

“If it's a technology that's going to have an impact on their lives, don't be afraid to give them six months or nine months to get used to it, to do a pilot,” Bleier says. “Don't rush them.”



BY JOHN G. SMITH



# TO SERVER & PROTECT

The secret to a safer fleet is hiding in telematics data, and your insurer knows it

**S**ome drivers represent a higher risk than their peers. You can see them on the road as they weave in and out of lanes, crowd other vehicles, or take offramps at unsafe speeds. They surge through intersections the moment a signal turns green, and begin braking at the last-possible second.

Managers no longer have to be in the cab to see these things happen. Related reports can feed directly into fleet computers, sometimes with video, and even in real time.

Indeed, the advances in vehicle telematics provide more insights into driver behavior than ever before – and those who write cheques to offset collision losses are taking notice. The >

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**It really does link back to behavioral characteristics – aggressiveness, self control, patience.”**

–RICK GELLER, MARSH CANADA



illustration: MHJ – iStock.com

bad habits of today, after all, predict the likelihood of future crashes. And the habits are far cheaper to fix.

Rick Geller, Marsh Canada’s vice president - transportation industry leader, points to an individual truck’s lateral movements as an example of data that helps to identify a high-risk driver. If these numbers crawl unusually high during a typical workday, it could be the sign of someone hopping from one lane to the next.

Moving violations that involve lane positions or merging are a close second to careless and reckless driving when it comes to predicting the likelihood of future crashes, Geller explains. “Any time you deviate from a straight line, there’s an opportunity to be involved in a crash.”

Unlike the moving violations that require a police officer to take notice, meanwhile, the vehicle sensors never blink.

Not surprisingly, hard braking events increase the likelihood of rear-end collisions, adds Don Williams, Aviva’s senior manager – transportation fleet, corporate risk. They also increase the likelihood of a particular type of lawsuit. These types of collisions are particularly prone to personal injury claims, he says. Those are among the most expensive claims of all.

**The big(ger) picture**

“It really does all link back to behavioral characteristics – aggressiveness, self control, patience, those kinds of attributes,” Geller says. And the problems are not only limited to new hires. Long-time employees with strong safety records have still been known to let bad habits creep into their daily routines.

The telematics data can offer insights into more than drivers alone, too.

Consider aggressive driving. Those who work behind the wheel may feel forced into such actions because of a dispatcher who pushes employees to extremes. It’s why Geller thinks it’s always best to step back from individual truck data to develop an image of the broader fleet. “You can segment business units against each other, terminals against each other, or driver managers against each other,” he explains, referring to how this is possible.

The picture becomes even clearer when different types of data are combined.

“You can record or map where the vehicle is, how fast it’s traveling, and cross reference that from a mechanical standpoint [to see] how the vehicle is behaving,” Geller says. “Primarily it’s the behavioral indicator that insurers are looking for – but there’s also the integration of the telematics with the operation of the business.”

As an example, Williams refers to the way that information about hard turns can be coupled with GPS coordinates. Each event is troubling, but hard turns that occur in areas known for dense traffic can represent the bigger threat of a collision. Then there’s the question of why drivers are taking such actions in the first place. A fleet that takes a broader look might be able to revise the route plan to offer a straighter path or limit troublesome left turns altogether; a shift in delivery schedules could limit interactions with other aggressive vehicles.

“How are [fleets] using that data to change driver behavior and change their operational management?” Williams asks. And are the issues isolated to specific drivers or part of a broader trend? If one driver is involved, the answer could be in the form of retraining in defensive driving. If the threat is widespread, it could be time to revisit the screening and hiring practices for new recruits.

The data can even become a coaching tool in its own right. “I’ve seen fleets that have used this to get real-time information to their drivers,” Williams says. Combine the funds for a safety bonus with a commitment to gamification and suddenly the drivers are changing their habits just to prove they are better than their coworkers. The same bonus structure can also help to improve the buy-in of drivers who see the technology as an invasion of privacy and yet another sign of an ever-vengeful Big Brother.

Negative data is nothing to fear – as long as fleets are taking steps to address the issue.

“Overall, the action plan should improve, or have a positive impact upon, their claims experience. When you’re talking fleet insurance, the better your claims experience, the better your [insurance] rates are over time.” Williams adds.

Data can still lead people astray, of course. Geller, for example, refers to the way a process audit can tell whether everyone completed a series of identified steps. The question that still needs to be answered is whether the identified steps were the ones that should be answered in the first place.

“There’s so much data coming at you, it can be difficult to separate what’s germane from what’s just noise,” he admits. The benchmarks for comparisons make a difference here, and that’s where insurers can offer some of the biggest help of all. Sure, a fleet can compare individual employees, but an insurer can tell if the experiences line up with similar operations.

### Looking into the future

The focus on data could become increasingly important as personal injury lawyers look for new ways to suggest a collision could have been avoided. This may not be an issue yet, but Geller can picture a time when the lawyers looking into a 2 pm crash might begin asking about the two or three close calls that occurred earlier in the day. It could lead to awkward questions about why the fleet didn’t act on the information. An operation with a close eye to real-time data could identify such threats before they take shape, he says.

The irony, of course, is that some fleets use similar scenarios when describing why they have avoided investing in telematics.

“There is an element out there that believes they could be handing a plaintiff’s attorney or regulators the bullets to shoot them,” Geller admits. “People need to awaken to the fact that it’s already here – and you’re far better advised to assume control of it and manage it.”

Even if a fleet isn’t using telematics data, plaintiff attorneys have begun combing through driver cellphone records to see when people received a call or text. If the times align with the moments heading into a crash, that is seen as proof of distracted driving.

Williams puts management teams at ease with another fact. “The data is the property of the fleet,” he says. “If they want to share that information with us, the more the better.” And he’s never heard of a case where an insurer has used telematics data as a reason to deny coverage.

It all could eventually reshape the way insurance is offered. In an automotive context, insurance teams are already looking for ways to ensure that coverage is blind to gender and age. Put another way, a younger driver could secure a lower rate than an older driver – as long as they can prove they’re safer behind the wheel. “They’re going to migrate away from ‘pay as you drive’ to ‘pay how you drive,’” Geller says. Today’s rates based on postal codes and traffic volumes could be balanced with proven data about someone’s safe driving practices.

Could there be a future for usage-based insurance in the trucking industry? Perhaps. Maybe that could play for an owner-operator. “We’re not there yet,” Williams says. “I know that discussion has been going on.”

In the meantime, insurers are looking for ways to improve the safety of those they cover.

“Insurers don’t tend to look at getting rid of customers,” Geller stresses. “The mindset right now is to jump in and help people correct those issues.”

And the corrected issues offer a path to affordable insurance.

“As an underwriter, if you can show me how you’re using that system effectively, it makes you a better-run fleet,” Williams says. “I would be attracted to that type of risk.”



illustration: MHJ - iStock.com

# data DILIGENCE

Many roads lead to protecting data from loss and theft

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BY CARROLL MCCORMICK

**W**hether it is deleting dodgy emails, not doing sensitive business in unsecured wifi zones, using Cloud services, or hiring experts to protect against advanced threats, it takes many hands to keep fleet data safe.

It may be helpful to think of two groups of data protection: protection from loss, like deleted documents and hard drive crashes, and protection from hacking and data theft.

On the loss front, it is a mantra that we must regularly back up our work, whether it's hitting the Save button every few minutes, saving to a thumb drive or external hard drive at the end of the day, or using a built-in tool for saving (almost) everything, like Apple's Time Machine.

More and more, however, users, from owner-operators to big fleets, are storing or backing up some or all their data in the Cloud, which is poetic way of saying that they have handed the job to a business "out there," such as Dropbox, Amazon Web Services or Microsoft Cloud. It's easy and assumed to be reliable.

"I have spoken to half a dozen owner-operators ... and they are all aware of the importance of protection from hard drive failures, and continuously back up data with external storage. Several told me 'everything goes to the cloud' when it comes to document storage and back-up ...," says Joanne Ritchie, executive director of the Owner-Operator's Business Association of Canada, in response to a query about her members approach data protection.

In the maintenance shop in the transport division of Trois-Rivières-based Groupe Bellemare, data is on company servers. If a laptop crashes, says Yanick Bergeron, mechanical services clerk, "We change the laptop then continue our jobs."

Backups are not, however, failure proof. Patrick Cruikshank, director of professional liability, Northbridge Insurance, warns, "Testing the integrity of your data backups is as important as regularly backing up your data. Some companies have said their data backups were blank."

(Even tools which imply that they back up everything, may

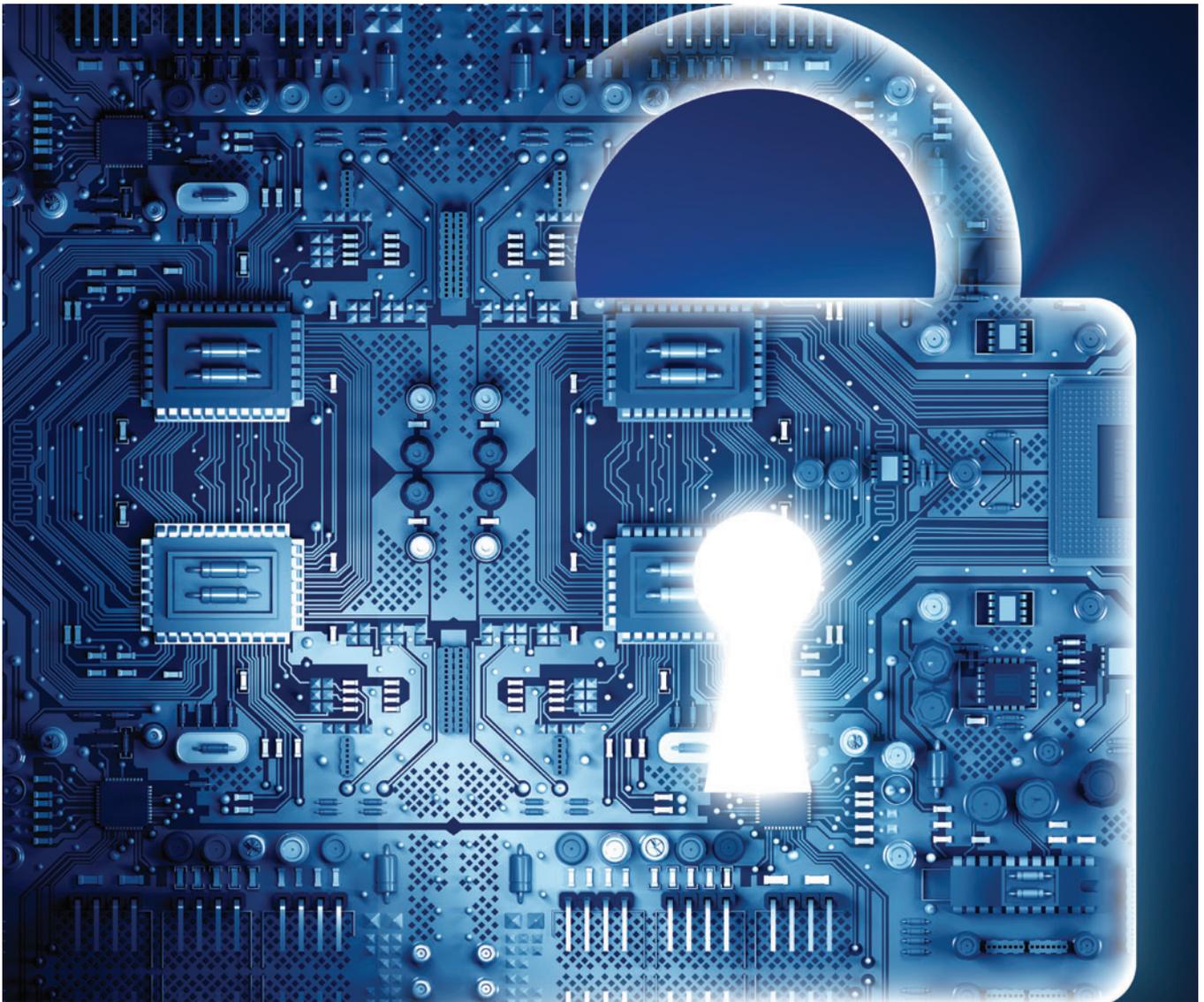


Image: Henrik5000 - iStock.com

have hidden limits. One user, for example, discovered after a hard drive crash that his computer's built-in tool did not save his Calendar information, nor did it save a single Outlook email. Fortunately, a running archive of his 12,000-plus emails existed elsewhere.)

Time Machine uses what is called an iterative method of backing up data. This means that earlier versions of files (within the constraints of the save schedule) are all saved – possibly years' worth – until the external hard drive where the data is stored, at least in the case of Time Machine, is full. Only then does any overwriting begin. Why does this matter?

“We find the best backups are done on an iteration level – think date stamp – rather than overwriting the last version. This way, in case of infection you can go back to the last clean version. We have seen cases where backups were overwritten with infected data, so such backups were contaminated,” Cruikshank says.

Backups may also save your bacon after a ransomware attack.

A high-profile ransomware attack this May 12 infected some 230,000 computers in 150 countries with a cryptoworm called WannaCry. It locked up victims' computer files and the hackers demanded hundreds of dollars in ransom from each victim.

One way around this hack is to fire up another computer (say, the laptop you keep under your desk for trips) and restore the files from your backups, suggests Mark Murrell, the co-founder of CarriersEdge, which provides online driver training services, and which provides the system used for the Long Combination Vehicle certification program in Ontario and the Atlantic Provinces.

But ponder this advice on backups from Joey Frazee, vice president development, Trip Data and Safety Management Inc. (TDSM) “The big thing we always tell our clients is not to back up to the same device your application is on. We have some clients who back up to detachable drives. Anything that is attached to the computer is potentially vulnerable to viruses. Plug them on only for the backup process. Otherwise, >

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**With Cyber Risk insurance we request an application to look at a client's risk structure. If there are weaknesses in the risk profile, we like to help clients identify and address areas of improvement. Cyber Risk insurance is a component part of an insured's overall risk management.**”

unplug them from the computer.”

How do commercial providers like CarriersEdge protect data from irretrievable loss? “That’s pretty simple,” Murrell explains. “Hard drives are cheap. It is very easy to set up redundant systems. In general, the way around hard drive failures are redundant servers, regular backups, storage in multiple locations. We have multiple servers, redundant data, twice-daily backup, multiple backups a week, and backup to offsite.

“All of the stuff I’m talking about – we have a data centre provider that manages that. Everyone is moving more and more to the Cloud. It is getting to the point where it makes no sense for us to have our own servers. Amazon, Microsoft, IBM, etcetera, can do a much better job of this. Many companies are doing this, and if they are not using the Cloud, they are looking at it.”

Some might wonder where the crash of an Electronic Logging Device (ELD), mandated for fleets before the end of 2019, could land them, compliance-wise. Although the Federal Motor Carrier Safety Administration created legislation for data tampering, Frazee notes that, “...it has not dictated any legislation for the security of e-log data. They have left security [against loss] up to the provider.”

But no worries for TDSM ELD users, Frazee assures. “Say the ELD fails. The driver will have to go to paper until he can log into a new device. The e-data will come back to him, as well as the paper logs, which are digitized, converted to electronic data and sent back to the ELD. With the right solution, drivers can be fearless when it comes to their data.”

Protecting against hacking and theft of fleet data includes simple, oughta-be simple, and specialized solutions requiring IT specialists. On the “oughta-be simple” level, the weak link is the human. For example, despite endless warnings and even training, some people are constitutionally unable to resist opening suspicious emails.

Cruikshank offers some useful tips: “Apply patches and software updates when available. They are usually there for a reason. Having a culture where these are installed in all devices as soon as possible is really important. Continually train your staff to be more diligent about network security, for example,

to not use social media passwords in the work environment.”

Murrell adds, “Set your machines for auto-updates. We train our staff not to transmit code or anything sensitive over public wifi.”

Using commercial providers does not exempt fleet personnel from vigilance. “The biggest thing I see is people sending their credit card information by email, or leaving it in voicemail boxes. They should protect against that,” Murrell says. Another no-no is sending extra information. “When a customer signs up with us ... all we need is the names of the drivers, and preferred password information, if they want. [But] some companies send a full profile of drivers. We get rid of that data immediately. You can share too much data,” Murrell says.

Mark Botticelli, executive vice president, technology, PeopleNet, says, “Fleets need to implement tight controls on the inventory of vendor equipment to ensure hardware doesn’t go missing. In the event of a missing truck, fleets should also alert vendors, who might be able to help them locate the truck because their equipment is installed in-cab and can be traced.”

Sharon Reynolds is the chief information security officer for Omnitrac, which uses vehicle telematics to provide various solutions to fleets. She says, “It is a joint responsibility for Omnitrac, the fleet and the drivers to all practice strong security measures. As with any information system, we are only as strong as the weakest link.”

By the way, there is no harm in asking service providers how they handle data protection and privacy. “I’m surprised at how little we get asked about that. Periodically you get people who are very diligent and ask lots of questions, and are curious about how we handle it,” Murrell says.

Companies like Omnitrac and Northbridge Insurance are ready to offer counsel to fleets on data security. “Omnitrac provides security briefings with existing customers and prospects regarding threats to the industry, risk mitigation and best practices for operating information systems,” Reynolds says.

Cruikshank notes, “With Cyber Risk insurance we request an application to look at a client’s risk structure. If there are weaknesses in the risk profile, we like to help clients identify and address areas of improvement. Cyber Risk insurance is a component part of an insured’s overall risk management.”

The experts also remind us that someone in the fleet needs to be in charge, both for protection, and response in case of a loss or security breach. “One of the largest areas of weakness is around business response planning,” Cruikshank notes.

Reynolds counsels, “Identify/hire a role responsible for security and develop an information security program. Perform third-party security assessments, penetration testing and remediate identified gaps in security. Develop and practice an incident response plan.”

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