



# EMERGING TECHNOLOGIES: THE UNEXPECTED LAKE IN BUSINESS'S GPS



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A recent report from Jalopnik revealed that roughly 100 drivers in Colorado drove into deep mud because Google Maps told them to. The whole story starts with a detour away from a crash site that sent said drivers onto a privately owned and maintained road. The road in question had been turned into a muddy morass by recent rainfall and became an involuntary parking lot for the drivers involved. Some — whose vehicles boasted all-wheel-drive or its equivalent — got through in one piece and offered rides to some of the stranded, but it worked out effectively the same way: A whole bunch of people got stuck thanks to their GPS tools of choice.

When we trust new technology too blindly, we run the risk of ending up exactly like those drivers in Colorado: stuck in the mud because we unquestionably relied on new technology. New technologies are constantly emerging to market and are offering great potential — especially for businesses. But understanding these technologies and the roles they can play in our current operations can represent the difference between a smooth trip and ending up stuck in the mud.

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### IOT KEEPS THE BUSINESS ENVIRONMENT OPEN

The Internet of Things (IoT) offers a huge opportunity for businesses. Those opportunities don't come without some risk, though.

#### *Up-to-the-Minute Tracking*

With IoT systems, it becomes possible to identify the location of any asset at any point in a system. Follow finished goods inventory from the production floor to the warehouse, and know at a glance how much of any product is in place. With this kind of information flow, a little bit of advance planning renders shortages obsolete.

#### *Better Communications*

The improved flow of information also makes communications better. By knowing exactly what's in place when, and making

that information readily available, there's little need for anyone to get back to you later. Everything you need to know about corporate assets is at hand.

### **Security Threats**

IoT represents a serious problem with security. Not only does it make your systems more tempting to hackers — all that additional information is priceless to your competitors — but it also provides a way in. Most IoT systems are little more than a sensor and a wireless network jack, so without conscious security support, they represent a clear path back to your network that could be exploited.

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## **IOT KEEPS THE BUSINESS ENVIRONMENT OPEN**

Omnichannel messaging is one of marketing's great advances.

### **Round-the-Clock Contact Point**

Omnichannel messaging operations can be available at any time of the day or night — weekends, holidays, and so on. Customers want to contact your business on their schedule, not according to your hours. Omnichannel messaging systems allow you to offer that point of contact without having to hire round-the-clock staff.

### **Staff Relief**

With an automated system similar to what omnichannel messaging provides, this emerging technology can answer simple questions for your customers fairly readily. Questions such as “What are your hours?” and “What is my account balance?” can be answered by the automated points. Why pay your staff to answer these when they can address the most complex questions instead? This frees up the staff and allows greater customer satisfaction as the harder questions are answered more quickly.

### **Only Useful Sometimes**

While automated tools like this can take some weight off of

staff, they can only do so much. A human staff is still vital for those complex issues, and customers calling after-hours likely won't be satisfied solely by the automated responses.

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### **AUGMENTED REALITY: NOT JUST FOR GAMING ANY MORE**

Augmented reality — the technology that electronically inserts images into a human's field of view — represents a significant change in several business practices.

#### *A Training Champ*

With augmented reality, the notion of on-the-job training hits its peak. Employees can actually learn by doing, with the augmented reality system pointing out exactly what should be done in almost any situation.

#### *The Ultimate Map*

Augmented reality has long been associated with GPS tools, showing users on a windshield display where to turn and when. Compress this down to a tablet or smartphone display and it becomes the ultimate map in stores, showing shoppers exactly where to go.

#### *The Ultimate Try-Before-You-Buy*

Customers wanting to see how a shirt would look on them no longer need to wear it briefly. Customers wanting to see how a couch would look in their living rooms no longer need to haul it home. Augmented reality can overlay these items in the relevant locations and let the customer see for themselves what the item in question would look like where it should be.

#### *Dulled Edge*

The risk to augmented reality, however, is that it may become too useful. If employees begin to rely on it and it's lost for some reason — power outage, network disconnect, and so on — employees' ability to perform tasks and find things may take a hit.

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### **AUTOMATION: A RAZOR'S EDGE**

Easily one of the most complex emerging technologies, automation can be a disaster or a delight.

### **Don't Sweat the Simple Stuff**

When it comes to the simple things, automation is key. We've already seen automation work wonders in packing boxes or cutting forms; many aspects of factories these days are automated — with some human help on the side. Automation means employers no longer have to pay a workforce to do what a machine can often do better, faster, and without rest.

### **Uniformity**

Automation also scores high marks in uniformity. When you need the same thing over and over again, a machine wins out every time. A human can get bored or distracted, but machines have no such trouble. Machines stop when they completely break down or need repair, but they are often back in play quickly.

### **A Permanent Unemployable Underclass**

The greatest risk of automation, however, is a macroeconomic one. All those people who did the work machines do now or will do tomorrow (automation is stepping into legal, accounting, even medical fields) will be hard-pressed to find work elsewhere, because those who fail to automate will inevitably fall behind their competitors and close.

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## **ARTIFICIAL INTELLIGENCE: THE GREAT COIN FLIP**

### **The Ultimate Search Tool**

The emerging technology of artificial intelligence represents one of the greatest potential victories or disasters around.

Imagine a device that understands what you want as well as you can describe it. That's the potential artificial intelligence represents. Instead of counting on your Google-Fu or your ability to find a search engine that can work from a picture, artificial intelligence can find what you want from your description. This speeds up the process of finding information and improves decision-making speed. For businesses that aren't already agile — such as larger

enterprises — this can restore some of that small-business pivot speed that's so often lost.

## **Massive Connections**

Artificial intelligence is essentially a human-style face on a massive computer network brain. It can remember things about its customers, and it can make connections and draw inferences. It can suggest other possibilities based on what's already known. Hotels, including Marriott International and Cosmopolitan Las Vegas, are already putting these tools to work with excellent results so far.

## **More Human Than Human**

Much like automation, artificial intelligence can supplement human abilities, or, potentially, replace them. After all, why pay a human to do what a machine can do? Worse, what happens when the artificial intelligence gains control and decides you're not a boss to be obeyed but a problem to be removed? Because artificial intelligence is also designed to learn — and has the internet on its side — it can quickly outpace humans. Just ask Brad Rutter and Ken Jennings, who lost by wide margins to the Jeopardy-playing Watson AI developed by IBM.

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## **MACHINE LEARNING: DEGREES FOR DEVICES**

Machine learning isn't so much an emerging technology in its own right but rather a supplement to others.

## **The Perfect Supplement**

Machine learning helps put the punch in artificial intelligence, gives automation a leg up, and — for 97% of leaders in a QuanticMind study — represents one of the most helpful tools savvy marketers will ever know.

## **Surprising Utility**

Because machine learning is similar to grand-scale analytics and it finds useful data from the sea of random (and often unsorted) data we all work with, its potential line of use cases

### *Always Working with Something Else*

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## HOW TO TAKE ADVANTAGE OF THE POWER OF EMERGING TECHNOLOGIES

is massive. The amount of data that will be subject to data analysis by 2025, according to IDC, is poised to reach 5.2 zettabytes. Having machines on-hand to help with that analysis will be the only way to prevent workers from becoming swamped by the sheer amount of data.

Machine learning really doesn't do much by itself. Rather, it augments other systems to produce better results. Thus, in order to use machine learning, it effectively has to have its own infrastructure as well as other projects going on at the same time. There is no real way to engage in a machine learning project by itself; it needs to be paired with another for real effect.

Emerging technologies represent opportunity. Whether this opportunity is used for good or for ill depends almost wholly on the user. If you put emerging technologies to use to improve your operations and constantly monitor the impact of these changes so you're ready to change as well (this includes removing some technologies that don't perform as well as hoped), you're ahead of the game. If you just plunge blindly after the next big thing, then you're likely to wind up stuck in the mud your new technology led you into. Stay out of the mud, and drive your way to victory by getting in touch with us. We'll show you how to put the latest in emerging technologies to work for the best outcomes possible.



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