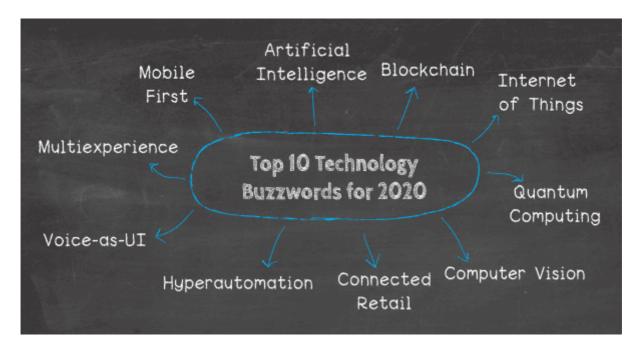
Top 10 IT & Technology Buzzwords You Won't Be Able To Avoid In 2020

By Sandra Durcevic in Buzzwords, Nov 20th 2019



The modern world is changing more and more quickly with each passing year. If you don't pay attention to new changes or keep up the pace, it's easy to fall behind the times (and the market) while other companies beat you to the punch. The solution? To keep abreast of current changes – at least at a level of basic understanding.

Adding to that, if you can't understand the buzzwords others are using in conversation, it's much harder to look smart while participating in that conversation. In this post, we're going to give you the 10 IT & technology buzzwords you won't be able to avoid in 2020 so that you can stay poised to take advantage of market opportunities and new conversations alike.

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1. Computer Vision

The first in our definitive rundown of tech buzzwords 2020 is computer vision. Exciting and futuristic, the concept of computer vision is based on computing devices or programs gaining the ability to extract detailed information from visual images.

In a computing context, 'vision' involves systems that can identify items, places, objects, or even humans from visuals mediums – images caught by a camera or sensor. Computer vision technology allows your smartphone camera, for instance, to decipher which element of the image it is capturing is a face, propelling technology such as Google Image Search to make decisions and deliver accurate results. No matter if you need to conduct quick online data analysis or gather enormous volumes of data, this technology will make a significant impact in the future.

While we've seen traces of this in 2019, it's in 2020 that computer vision will make a significant mark in both the consumer and business world. At present, computer vision is helping to facilitate advanced face recognition, a practical application that will be used in a number of scenarios, from staff security to smart database access.

Dubai airport currently uses computer vision-powered face recognition to provide a smoother customer journey, streamlining transitions through security, passport control, and departures while gathering essential consumer data that assist in the continual improvement of its services.

Other potential applications of computer vision in 2020 include:

- Brand safety: When it comes to programmatic advertising, images play an important role in
 encouraging readers to engage. But, often, ads can become tarnished by irrelevant or
 offensive images or poor placement. However, with computer vision, businesses will be able
 to leverage technologies that can scan for and identify discrepancies and take action to
 protect their ads from potential harmful brand messaging.
- Visual analytics: Around three million images are uploaded to social media every single day. For businesses looking to improve their consumer marketing communications, finding relevant images in real-time is a time-consuming venture. With computer vision technology, marketers will be able to program autonomous searches, sourcing images that will lead them to brand influencers, prospective partners, and valuable audience members with ease.
- Internal comms: Computer vision technology can serve to improve internal communication by empowering employees to perform their tasks more visually, sharing image-based information that is often more digestible and engaging than text-based reports or information alone.

2. Artificial Intelligence (AI)

Already in our shortlist of tech buzzwords 2019, artificial intelligence is on the front scene for next year again. Scientists have been working on Al for years and in 2020 we will see some more new applications.



All refers to the autonomous intelligent behavior of software or machines that have a human-like ability to make decisions and to improve over time by learning from experience. Currently, popular approaches include statistical methods, computational intelligence, and traditional symbolic Al. There are a large number of tools used in AI, including versions of search and mathematical optimization, logic, methods based on probability and economics, and many others. In business intelligence, we are evolving from static reports on what has already happened to proactive analytics with a live dashboard assisting businesses with more accurate reporting. They indeed enable you to see what is happening at every moment and send alerts when something is off-trend. An important part of artificial intelligence comprises machine learning, and more specifically deep learning – that trend promises more powerful and fast machine learning. An exemplary application of this trend would be Artificial Neural Networks (ANN) – the predictive analytics method of analyzing data. Neural networks create a system of interconnected layers with each subsequent layer acting as a filter for more and more complex features that combine those of the previous layer. This feature hierarchy and the filters that model significance in the data, make it possible for the layers to learn from experience. Thus, deep nets can crunch unstructured data that was previously not available for unsupervised analysis.

You can see an application in business intelligence with the datapine solution, that comprises an Al algorithm based on the most advanced neural networksfor its alerts. That way, any anomaly is identified with high accuracy, as it learns from historical trends and patterns: every unexpected event will be notified, and an alert sent.

Some more examples of Al applications can be found in various domains: in 2020 we will experience more Al in combination with big data in healthcare. Heart monitors, health monitors, and EEG signal processing algorithms are already on the research frontline. Likewise, major advances have been made in the field of self-driving cars, as major companies, like Tesla and Volvo, are competing to take over the market. Volvo has announced that their autonomous car drivers will have the option to "eat, sleep, work, watch a movie, relax, do whatever." Another direction in which AI is heading is the introduction of a truly smart smartphone that would be able to make stuff for us. For example, you could tell your phone about the trip you plan and it would book the most convenient flight, hotel and rental car for you. Likewise, 2018 was the year of virtual assistants: Alexa, Cortana, all of them have taken the consumers' market by storm. It is not going to stop in 2020, as their development is never-ending; Google Now and Siri have become ubiquitous, thanks in large part to the voice recognition software becoming much more powerful over the past year. Siri, Cortana, and Alexa all share similar roles – enabling us to live one step closer to the futuristic notions of having Al virtual assistants that can do anything we need on a whim. Who knows, maybe AI will even have the potential to make or at least help us with our strategic business decisions in the near future.

Regarding the future growth of AI, it is undeniable. The research firm Markets and Markets, for instance, estimates that the AI market will grow from \$16.06 billion in 2017 to \$190.61 billion by 2025.

Al is undoubtedly one of the most prominent 2020 buzzwords to look out for. Gartner has stated that "artificial intelligence in the form of automated things and augmented intelligence is being used together with IoT, edge computing and digital twins." We will probably talk about Al as the megatrend of the future. They also predict that by the year 2022, 40% of new application development will have Al co-developers on their team. That being said, it is evident that artificial intelligence won't leave the IT buzzwords' lists any time soon.

3. Connected Retail

While IoT was a prominent feature of buzzwords 2019, the rapid advancement and adoption of the internet of things is a trend you cannot afford to ignore in 2020. This leads us to the next of our buzzwords in IT: *connected retail*.

To explain this most essential of 2020 buzzwords: connected retail is the seamless bridge between physical and digital retail, creating a connected, cloud-based ecosystem for enhanced consumer experience and advanced data collection. Such innovations offer the ability to transfer data over a network, creating valuable experiences for both the consumer and the business itself.

Connected retail is a buzzword in IT worth mentioning as it will become integral in 2020, with countless applications that offer unique data opportunities to brands across sectors.

Take Walt Disney World, for instance. An innovator in the field, Disney launched a smart wristband that allowed guests to tailor their experience within the park. Working with various touchpoints and sensors, guests benefit from a wealth of tailored park information while receiving bespoke deals, discounts, and offers as they interact with the landscape around them. In turn, this consumer data easily modified into detailed customer service reports provides invaluable insights for Walt Disney World.

From this example alone, it's clear that this consumer-facing, cloud-centric branch of the IoT creates richer experiences while enhancing the delivery of digital insights (and as such, deserves a mention of its very own) - big data that can empower a business to set itself apart from its competitors. One of the IT buzzwords you must take note of in 2020.

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4. Internet of Things

Without a doubt, the Internet of Things (IoT) is one of the most influential IT & tech buzzwords of recent years and will continue to grow in popularity as its applications will become more and more tangible. Advancing society, connecting different systems, improving the quality of our lives – all these potential elements of the IoT are starting to correlate with our traditional perception of reality. The number of connecting devices is growing rapidly, and 2020 won't be an exception to this trend.



With the Internet of Things, the physical world will become one big information system. Everyday physical objects will be connected to the Internet and to each other creating ambient intelligence. The new task of designers will be facilitating an ambient user experience that smoothly flows across and exploits different devices. The device mesh refers to an expanding set of endpoints people use to access applications and information. It includes mobile devices, wearables, consumer and home electronic devices, automotive and environmental devices — all sensors in the Internet of Things that interact and cooperate with each other and that will constitute our Internet-connected reality.

The monetary value is also increasing, as more devices are becoming interconnected, bringing more potential to the computing networks of organizations. A study conducted by McKinsey pointed out that the potential economic impact of IoT by the year 2025 could be equivalent to 11% of the world economy. Digitalizing vehicles, machines, a DSS software upscaling business decisions, physical objects to refine and upgrade our reality are all indeed a powerful idea, that should be monitored in the year 2020.

While some may argue that the Internet of Things is eating up our world, even creating smart cities, and not just used in business operations, the potential of one of the most important IT buzzwords must not be easily disregarded.

The major holdup right now preventing the "smart home" revolution from happening is that there are too many different platforms on the market and connectivity issues. Google, Amazon, and Apple each have their own "ecosystems" that don't play well with each other. However, it's likely that soon this problem will be solved by the forces of innovation and capitalism – so keep an eye on this space in 2020.

5. Hyperautomation

Al was certainly a prominent buzzword 2019, and as mentioned, its evolution still makes it a vital term in 2020. Catalytic evolutions in the autonomous tech world have now given birth to one of the most disruptive of 2020 buzzwords - hyperautomation.

Hyperautomation is an innovation that results in the creation of a 'digital twin': a self-sufficient bot that can conduct a range of sophisticated human tasks, often under pressured environments.

In our hyper-connected digital age, 'automation' is one of the most prominent IT buzzwords or concepts you're likely to hear as it covers such a broad spectrum of developments. But hyperautomation is an innovation in its infancy, and it's expected to explode in 2020.

Hyperautomation is based on the application of advanced technologies, including AI and ML (machine learning), with the aim of automating a host of people-centric processes while augmenting human roles within organizations across industries.

Hyperautomation covers a broad range of tools but also refers to the sophistication of the automation itself.

While many are fearful of hyperautomation, rather than replacing people, the invention of digital twins will allow organizations to visualize and improve existing processes while helping people drive their roles to exciting new heights with the assistance of advanced automation.

Hyperautomation doesn't exist to replace humans - it's actually an incredibly sophisticated form of business intelligence (BI) for the new age.

6. Blockchain

The blockchain is *the* trendiest trend of the past years that keeps growing. This IT buzzword was on everyone's lips already in the last years, after it made history when in 2017, bitcoin increased its value from \$1000 to roughly \$20000 (20 times in one year!), but 2018 brought a major price correction – bitcoin decreased to roughly \$3000. In the following year 2019, bitcoin saw another price increment to roughly \$14000 in the first 7 months but decreased its value to roughly \$8000 in November. Despite the challenges, blockchain technology has significant potential in providing an alternative trust model opposing banks, governments, and many other institutions.



Everyone has heard of the blockchain, but few actually understand how it works due to its relative complexity, so we will try to introduce it here. Blockchain was invented in 2008 to serve as a ledger of the cryptocurrency bitcoin. Depending on the circles you run in, bitcoin was either:

- The shadiest thing that has ever happened to the internet
- The coolest innovation in modern currency, ever
- A non-factor since you had no idea what it was

In order to clear up any potential confusion, bitcoin is a system of currency that doesn't rely on banks, countries, or any outside institutions. This is potentially a very big deal, as there are many people living in developing countries that have to deal with issues like hyperinflation, not being able to exchange their currency for others, and having to exchange currency on the black market.

Bitcoin can solve all that – but the technology underlying bitcoin, called blockchain, is the real star of the show. The blockchain is what enables bitcoin users to be able to exchange currency without any fear of being ripped off or getting "counterfeit" bitcoin. Basically, blockchain works by keeping a record of each transaction that happens using Bitcoin as a currency. This record is completely transparent to everyone and is part of the fundamental structure of bitcoin.

As Investopedia puts it: "To use conventional banking as an analogy, the blockchain is like a full history of banking transactions. Bitcoin transactions are entered chronologically in a blockchain just the way bank transactions are. Blocks, meanwhile, are like individual bank statements."

Bitcoin is just one example of using blockchain technology in cryptocurrencies. Last year was the year of many others that entered the market.

This blockchain structure makes it very difficult to forge cryptocurrencies or do any sort of fraudulent activities involving the currency itself. And indeed, its solidity is shown as blockchain is starting to be used by major banks around the world as a way to pay large amounts of money with less time spent on security, thanks to the safety of the blockchain. For example, in October 2016 Wells Fargo and The Commonwealth Bank of Australia made history by using blockchain to facilitate paying for a shipment of cotton from the U.S. to China. The increasing potential does not solely rely on the transaction settlements, but also a highly secure framework for protecting data. In recent years, we have witnessed some shocking data breaches that made users skeptic towards sharing their personal information with 3rd parties. Blockchain has stepped up as an incorruptible encrypted recordkeeper that can be used in securing simple tasks like online shopping. Considering the ups and downs in the last years, blockchain will remain one of the 2020 buzzwords to keep an eye on.

How it will be used in enterprises, we will yet to see.

7. Quantum Computing

Quantum computing will continue being a major technology buzzword in 2020. In general quantum computers can solve much more complex problems than classical electronic computers by using quantum bits (qubits) instead of binary digits (bits). This means that the data doesn't have to be limited to two defined states any more: 0 or 1. For this reason, quantum computing is much more flexible by allowing computations to be performed in parallel.

However, the real challenge is *how* do quantum machines really carry out these quantum computations. Scientists have been researching in this field for decades, so it may still take some years before quantum computing becomes a reality. Nevertheless, the increasing potential to use quantum computing has even made Google map the path to quantum supremacy. There are many ways in which this new way of computing can be utilized, from cryptography (the most common area people associate for quantum computing), forecasting, aviation, but the interesting part lays within data analysis and interpretation. Although quite far from the everyday usage of quantum systems, big organizations like NASA are already looking into utilizing it for analyzing the enormous data they collect about the universe.

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8. Mobile First

Mobile first is not exactly a new concept, but it will be accentuated in the years coming, making an essential part of our IT buzzwords 2020 list. Software providers have realized that users have many different interfaces to the Internet, and to access what they want. They've stopped assuming that users – and employees more specifically – do most of their works sitting at their desk in front of

their PCs. There is hence the need to develop software and apps that are adapted to these alternative ways of working and use habits.



Mobile first answered that need, by accommodating desktop computing in a way that fits the flexible work style of the mobile and smartphone era. As the name states, it designs the online experience for *mobile* before designing it for the desktop: a real change in paradigm. First an issue for B2C businesses who have to adjust to permanently changing consumers habit, it has reached the more defined, traditional working-style professional world, and B2B companies are increasingly moving towards mobile first – or at least, "mobile too".

That is a trend that also came to the business intelligence world. Today, with solutions like datapine's, you can take your data everywhere you go and work with it flawlessly. Online data visualization tools have made the mobility possible, accessing data in real-time, and providing insights while on-the-go. We know that modern businesses are not restricted to the physical limits of an office and the opportunity to access and work on your analytics whenever and wherever comes in handy. Digital nomadism is not just for hipster bloggers traveling the world – mobile BI accompanies you with its flexibility and ease of use, whichever device you chose to work with.

New visual analytics tools will provide users with advanced analytics and friendly user interfaces that would enable autonomous and informed decision-making. Business people will be able to pull valuable data insights whenever and wherever they want, as mobile enables easy access on-the-fly. In theory, missed business decisions won't belong in the future but some decision-makers will still ignore data and follow their guts – humans will remain the weakest part of the system.

9. Voice-as-User Interface (VUI)

The next in our rundown of essential technology buzzwords is voice-related.

User interfaces allow us to interact and communicate with machines, encompassing the likes of computer monitors, keywords, controllers, and digital dashboards. And in recent times, the rise of voice technology has increased the consumption of VUI.

Consumer voice technology has exploded, with Amazon Alexa, Siri, and Google Assistant now commonplace in households and businesses across the globe. Experts predict that 50% of all searches will be conducted with voice searches by the end of 2020.

As voice-as-user interface or VUI adoption increases, this is a tech buzzword that will dominate 2020. And as verbal innovations like Alexa and Siri continue to evolve, the VUI will become an increasingly prominent part of the workplace, helping businesses to manage their daily duties with the help of a humanized voice assistant.

VUIs are equipped with artificial intelligence (AI) and machine learning (ML) capabilities, which means that these interfaces learn and improve from continual human interaction.

The human-centric aspect of VUIs makes them intuitive, appealing, and seamless in terms of user experience. In 2020, voice-based functionality will become part of many software platforms, with VUI-based assistants becoming a more prominent part of the business world.

In a conversation on VUI technology, Werner Vogels, chief tech officer at Amazon, explained:

"Interfaces to digital systems of the future will no longer be machine-driven. They will be human-centric. We can build human-natural interfaces to digital systems, and with that, a whole environment will become active."

10. Multiexperience

Arguably one of the most potent technology buzzwords on the list, multiexperience is a concept that has the potential to accelerate the success of countless businesses as long as they're willing to embrace its capabilities.

So, what is this most intriguing of tech buzzwords? The term multiexperience refers to the replacement of technologically advanced people with people-literate platforms or technology. The evolution of a digital data dashboard, for instance, means that everyone within an organization can take charge of the insights that will not only empower them to do their job better but also drive the organization forward as a whole.

The idea of the multiexperience is that it empowers everyone to perform to their optimum capabilities, improving engagement and cementing interdepartmental communications in the process. Everyone gains access to invaluable information in a way that suits their strengths or capabilities, resulting in commercial growth and advanced business intelligence across the board.

With multiexperience, the traditional notion of a computer or platform evolves from a single point of interaction to include multisensory and multi-touchpoint interfaces such as wearables, advanced computer sensors or cloud-based tools that people can access remotely from a range of mobile devices.

As multiexperience evolves into 2020, experts predict that it will become more immersive, with virtual reality (VR), augmented reality (AR), and autonomous technology at its heart. While multiexperience is a relatively new idea, it's a concept that is growing at an incredible rate - and one of the buzzwords of 2020 that command attention.

The more touchpoints you have at your disposal, the more rich data you'll be able to collect - and by making these insights accessible throughout your organization through dynamic data discovery

tools, great things will happen.

So, What Are The Essential IT & Technology Buzzwords For 2020?

2020 holds a lot of exciting tech innovations in store, that we don't know about yet. We can, however, sum up here the 10 IT and tech buzzwords that we believe will be abundantly discussed in the coming year:

- 1. Computer Vision
- 2. Artificial Intelligence (AI)
- 3. Connected Retail
- 4. Internet of Things
- 5. Hyperautomation
- 6. Blockchain
- 7. Quantum Computing
- 8. Mobile First
- 9. Voice as UI
- 10. Multiexperience

"New technology is not good or evil in and of itself. It's all about how people choose to use it." - David Wong, writer

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The rate of technological change in our modern world accelerates with each passing year. By embracing and using these tech buzzwords of 2020 to your advantage, you will propel your business to prosperous new heights.

By taking note of these IT buzzwords 2020 and keeping up with constant change, you will connect with new opportunities in the market - those that your slower competitors won't see or will fail to act upon with enough pace to yield any real results. Explore our definitive list of technology buzzwords 2020 and push yourself ahead of the pack, one initiative at a time.

Hopefully, by reading these 10 tech buzzwords 2020, you've learned what to pay attention to in the headlines – the rest is up to you.

And if you want to take advantage of some of the buzzwords incorporated into modern software, try datapine for a 14-day trial, completely free!