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By **Guest Columnist**

Technological change is accelerating at a speed that's almost never been seen before. The last 12 months saw rapid progress for artificial intelligence, vehicles that don't need drivers and how connected everyone is. There was also that new iPhone!

But all that is a sign of things to come. The year 2018 promises a lot more as companies seek to launch intelligent products that understand us and are seamless to interact with. We've looked back over the last 12 months to see where the next ones will take us. Wired writer **Matt Burgess** talks us through the tech we can expect...

The smart office

Digital assistants have been installed in people's homes for a few years now. **Amazon's Alexa**, an artificial intelligence assistant, has been sold in the company's Echo speaker since 2014 (it was introduced in the UK in 2016) and has since seen increased competition from Google in the form of its Home device. The next step for these intelligent platforms is to find their way into offices. November 2017 saw Amazon announce Alexa for Business. It's claimed the system can answer people's verbal questions and help to arrange meetings, book rooms and more. There will also be more plug-and-play AI. Start-ups are creating online systems that can automate tasks, such as finding the right time for a meeting, and making them available for businesses for a fee. It means all companies can take advantage of intelligent systems, without having to hire specific software developers.



The Edge in Amsterdam is one of the world's most high-tech offices
(Credit: Ronald Tilleman)

This kind of intelligent offering being added to offices will increase: our workplaces will become spaces where buildings know their inhabitants and can adapt to what an individual needs. Like your coffee at a particular temperature? The machine will be able to prepare your order based on facial recognition tech. **The Edge, located in Amsterdam**, is thought to be the most intelligent office in the world. It has 28,000 sensors which measure everything from how much a desk is used to the CO2 levels in each area.

“Employees connect to the building via a smartphone app that also checks people’s daily schedules and helps them find colleagues, reserve meeting rooms and desk spaces,” explains Anne Lise Kjær, the CEO of Kjaer Global. “AI, machine learning, voice control, facial recognition and the growth of connected ‘things’ and devices is part of an integrated system, where the flow and entry of personal data could allow digital services to be truly personalised.” Your office will soon know you better than your boss does.

On the roads



“There’s no doubting that our cars are getting smarter,” says Martin Hamilton, a futurist at Jisc, the organisation behind the UK’s digital strategy for universities. If you’ve purchased a new car in the last two years, Hamilton says, it’s likely it has come with “speed limit recognition from road signs, adaptive cruise control, and emergency stop on pedestrian detection”. This is just the start.

Last year, **Waymo**, the self-driving spinout from Google, tested fully driverless cars on public roads for the first time. Steve Mahan, a legally blind man, was driven around the streets of Texas, US, entirely by Google's car: there was no other person in the vehicle and no emergency steering wheel or brake pedals if things went wrong.

The next 12 months will see this trend continue. More companies will catch up with the search giant and run their own tests that don't require humans. Autonomous vehicles are classed in six categories (Levels 0-5), and manufacturers are pushing towards making their vehicles the highest of these levels: Level 5 (full automation). This means no human control of the vehicle is needed at all. In 2017, most of the vehicles with self-driving features were at Level 3 (partial automation), meaning they're able to make decisions themselves but not fully control a vehicle.

Moreover, governments will catch up with autonomous vehicles: they will set out guidelines and laws saying who can use autonomous vehicles and when. Autonomous cars may be required to take a driving test to prove they are safe.



Electric cars, like Elon Musk's Tesla, will spark into life in 2018

This year will also be **the year of the electric vehicle**. Tesla, owned by former PayPal founder Elon Musk, will sell more of its most affordable Model 3 vehicle and bring them to the UK. Scores of other traditional vehicle manufacturers will continue to announce new electric cars as well. Volkswagen previously announced that all of its future vehicles would include some form of electric drive-train in favour of petrol or design engines, and more manufacturers will follow suit.

A world without cash

It's become a lot more seamless to pay people. Last year saw start-ups and tech giants making it possible to pay people directly through mobile phones, and in the process they're helping to create a society without cash. At the biggest end of the scale, Facebook's Messenger platform – used by more than 1.2 billion people each month – introduced a payment system in the UK.

Within the app you add your bank details, select a friend and tap how much money to pay them. Meanwhile London financial start-up **Transferwise** introduced a borderless bank account. It lets you save money in 15 currencies and doesn't charge international transfer fees. These seamless transactions all feed into a banking world that isn't reliant on traditional structures. Expect more countries to follow in the footsteps of Estonia, one of the most digitally prepared countries in the world. Since December 2014, the country has allowed anyone to become an e-resident: giving those who apply a digital ID, the ability to start a business in the country, access to business banking, and allowing contracts to be digitally signed.



Blockchain and other cryptocurrencies look set to muscle in on physical cash's territory this year

Digital currencies are also set to be bigger than ever before in 2018. The valuation of digital tender Bitcoin increased 17-fold across last year and attracted the interest of major financial institutions. The bubble of its price increase may pop (or may have already popped), but it's refreshed interest in the underlying blockchain technology. The blockchain, at its most simple, is a technology where everyone has access to see all transactions that have been made. "Businesses are beginning to think beyond blockchain usage primarily to improve efficiency," says Rob Gear, a futurist at the PA Consulting Group. Expect to see a lot more blockchain-for-X companies emerge next year.

The next step

The technology introduced in 2017 was just a start. This year, and in the years to come, more AI will be added to everyday products and tech will be able to adapt to each individual's needs. Connected products – whether they're vehicles, the devices we hold in our hands, or the household objects that surround us – are going to open a new era of personalisation that we are only just beginning to imagine.