

The   
**2018**  
→  
futurist forecast

more  
for you **O<sub>2</sub>**

“Don’t let’s talk about the technology as if it’s the technology’s fault that we’ve gotten better or worse at anything.

**It’s about how we choose to use the tools we’ve got.”**

Graeme Codrington  
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**Graeme Codrington prefers the term ‘thought catalyst’ to consultant. An expert on the future of work, he travels the world speaking to thousands of people about the technological, economic, political and social forces that are set to change the world in the immediate future.**

At the end of 2016, we worked with him to help us identify the disruptive technology trends set to hit UK organisations in 2017. His words struck a chord with many of us. Which is why we invited him, along with some of the UK’s top business decision-makers, to our recent Blue Door roundtable<sup>1</sup>, to think about what’s coming next.

We discussed the forces and factors that are set to shape 2018, and also revisited some of Graeme’s original predictions to see how they have progressed over a year in which change has become the only constant.

**Blue Door O<sub>2</sub>**’s roundtable discussions bring thought leaders from different organisations together. Under Chatham House Rules these conversations typically cover diverse topics; from general market trends, to overcoming skill gaps and designing programmes to drive internal adoption of new technologies. In an environment of shared experiences and learnings, these peers enjoy lively discussions on the topics that matter to them, their organisations and the communities they work and live in.

[For 2017’s report click here](#)



**Graeme Codrington**

Graeme specialises in the ‘future of work’ and has helped companies across the world to understand the forces that will shape our lives in the next ten years. His strategic consulting firm TomorrowToday Global aims to understand how people engage with technology in a changing world. Specifically, his team is focused on identifying disruptive influences in economics, politics, science and culture, and projecting how these will influence industries, individuals and entire societies.

Graeme’s objective with his clients is to reframe ideas, look at things from a new perspective and inspire a deeper conversation about the present, and the future.

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# The **2018** futurist forecast

Predictions for  
the year ahead



Mobile  
today or fail  
tomorrow

**“Within two years, if you are not mobile-first (which naturally implies cloud-first) you might be too far behind the curve to catch up.**

The smartphone revolution has not ended, in fact the last 20 years of progression have just brought us up to the starting line. We can expect that tomorrow’s employees will expect to be able to use the same level of technology at their workplace as they do at home. That means mobile-first, AI, natural language processing and staying always connected.

We joke about how wifi should now be the foundation layer for Maslow’s Hierarchy of Needs. But the time is coming when transport, work, medical treatment and civil liberties are all so reliant on the internet that connectivity will be as much a human right as running water and electricity.

Now is the time to seriously question the legacy IT investments that are holding you and your people back, because waiting is a costly game. Implementation cycles are being shortened from five years to five months, because of the risk of obsolescence over time.”





Think with  
an API  
mentality

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**“Look at the biometric fingerprint technology that so many banking apps are currently using for security. The banks themselves don’t need to create this technology, but they use an application programming interface (API) to allow Samsung and Apple to support the authentication of payments, and in the process improving the experience for the end user.**

Now, consider how many companies have access to data that could be useful to other enterprises, but sits dormant, ineffective, in their data stores. There are a number of unexplored partnerships and synergies that stand to improve products, services, and even societies – all using data that already exists, albeit in slightly unexpected ways, such as when Jawbone fitness trackers accidentally captured data on a massive earthquake in Napa.

Could fitness trackers soon go from counting steps to reporting seismological events through our biological reactions? It’s not impossible, nor are any other number of feasible cross-comparisons. Machine learning, teamed with improved data processing power and methodologies, means that there are massive insights and innovations that we haven’t even begun to explore.

Enterprises would do well to ask themselves what hidden value lies in their data for other organisations, and start trying to identify where these cross-overs exist.”



Look to  
the East

**“Stop worrying so much about Brexit. Seriously. So few of your euro-centric laws are going to change as and when the Brexit snake’s nest is untangled that it is simply not a productive use of energy or resources just yet.**

Instead question why, after the surprise nationalist rhetoric that categorised the Brexit vote and the US presidential elections, we are still navel-gazing when it comes to looking to technology and innovation. US-based companies like Facebook and Google are often looked at as global giants in terms of innovation, but we don’t talk as frequently about Alibaba and WeChat, two powerful Chinese organisations who have transformed the way people shop, chat and send money in China.

In 2016, China’s mobile payments hit \$5.5 trillion, roughly 50 times the size of America’s \$112 billion market, according to consulting firm iResearch. In Chinese cities, consumers pay for lunch, groceries and bicycle rentals using their phone, and busking musicians use QR codes to receive tips directly to their virtual accounts. It is fast becoming a completely cash-free society.

Blockchain is going to further erode the geographic borders that we currently have in business. When there are no more currency and forex restrictions, when we have legality that is not tied to landmass, we will finally discover what the global, digital economy really looks like.”



# Industries to watch

## Being disrupted...



### Transportation

Apart from the advances we've already discussed with regards to driverless cars, we're seeing other examples of the transport sector leading the way to smart cities. For example, at London City Airport, where augmented reality overlays are helping air traffic controllers make better decisions in the moment.

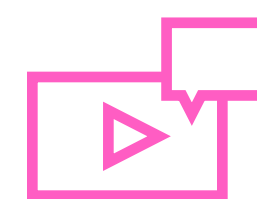
More people in cities and more cars on the road every year means that more countries will start investing in smart mobility solutions, and incentivising the private firms who develop these, as seen during the U.S. Department of Transportation's Smart City Challenge of 2015.



### Medical

The medical sector is well acquainted with the ramifications of the expanding IoT and new data protection rulings around how telemetric information is stored, processed and shared. After all, almost 10% of medical devices are now connected, a statistic that is only going to grow. This makes them well positioned to transition to a paper-free way of securing and transferring sensitive patient data in the future.

Additionally, there are obvious learning applications for augmented and virtual reality. Recently, St Bart's Health NHS Trust recorded the first 360-degree VR brain surgery. The video captures the patient's procedure allowing students to watch the procedure in an immersive, 360-degree view, as though they were live in theatre.



### Media

Media is fast overtaking financial services as one of the least trusted industries. The echo chamber effect of social media has been well highlighted, as well as the influencers who are able to manipulate audiences on a 'market of one' basis.

In the aftermath of last year's presidential election, Facebook has made a news feed update to include more information about the links and stories people see. Users will be able to click a button and see information from the publisher's Wikipedia page, a link to follow that publisher's Facebook page, and other links that might be related.

# Industries to watch

## Ripe for disruption...



### Politics

Because of the highly sensitive nature of ballots, we've come to accept the high level of complexity that surrounds engaging in political affairs, and casting our votes. But we can, and should, be demanding a more streamlined, and more accessible way to interact with our governments.

In Estonia, citizens and e-residents are now issued a cryptographically secure digital ID card powered by blockchain infrastructure, allowing access to various public services. Citizens can verify the integrity of the records held on them in government databases, and control who has access to them. Nasdaq has also successfully completed a trial that will enable company shareholders to use a blockchain voting system in the country.

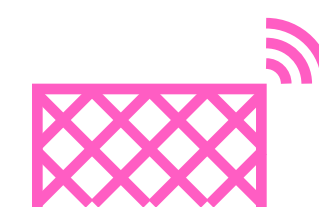
It's not inconceivable that we could soon be securely voting on government representatives and rulings using our mobile phones instead of lining up for hours.



### Education

With the number of free online resources available, and the value of practical experience over traditional accreditations, education should be getting cheaper and more accessible, but instead the opposite seems to be happening. Why?

The reasons for the rising costs of tertiary education are myriad. Rising administrative costs, the perceived necessity of a degree, the rising cost of student acquisition – the list goes on. However, our desire and need for further learning is only increasing, leaving age-old institutions open to the potential of external disruption. VR and AR opportunities exist to bring the physical laboratories and experiences together in an accessible, and typically more engaging and contextually powerful way.



### Sport

Having fans instead of customers mean that many popular sports industries have been able to rest on their laurels for years. It's true that innovations like Hawk-Eye and smart football helmets on fields, have helped a number of [sports deliver] more accurate referee calls for fans, and better safety for players.

But there is still a lot of room for innovation with regards to monitoring, measuring and predicting athlete performance, and keeping fans engaged. Even if that's achieved with something as seemingly simple as fast and reliable stadium wifi.



The

2017

update

How have January's predictions stacked up?



# 2017: Three key points

**Back in December 2016, Graeme summarised his thoughts with three key pieces of advice for enterprises looking to succeed in 2017:**

## **No more 'wait and see'**

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The cloud of uncertainty isn't going to clear up anytime soon. Prepare for volatility by creating a framework for action that accommodates change.

## **Experimentation is the new innovation**

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The telephone wasn't invented through 'optimising' letter writing. And innovation won't come from just 'optimising' what you've always done.

## **Robots won't replace people**

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AI and robotics can dramatically simplify and improve our lives. Instead of being threatened by these technologies, we should look for where a human touch cannot be replaced, and invest time and effort in upskilling workers in these areas.

One thing that's as true this year as it has been in preceding years. **The technology sector hasn't stood still.**

AI and natural language processing are in our homes, we've watched driverless cars take to the road, and listened as Bitcoin and blockchain quickly moved from fringe science to common conversation.

And as the year ends, we asked Graeme and our Blue Door guests to revisit and analyse some of 2017's initial predictions.

**Here's what they had to say.**



# No more 'wait and see'

## From January 2017:

*"Unfortunately for the companies who hunkered down in 2016, they're going to discover that 'waiting and seeing' isn't a viable business plan. I think that quite a lot of companies delayed the implementation of new strategies, technologies and systems in 2016, amidst all the uncertainty. But they're not going to have much more clarity in 2017."*

## The update: Early adopters are going to drive policy

As technology becomes more ubiquitously advanced, consumers are going to adopt it faster and at greater volumes, forcing governments and enterprises to quickly follow suit.

For instance, we've been reading about driverless cars for years as though they were still distant science fiction. But in the last year, Waymo has attained permission to operate its autonomous minivans on public roads in Arizona. While Singapore-based nuTonomy and selected Uber markets have been experimenting with self-driving cabs during 2017 with plans to expand their operations over 2018. And in Dubai plans are already underway for autonomous flying taxis to begin operations.

It's exciting progress. But the real safety advantages of driverless cars can only be realised when they are fully networked with other driverless cars. And the safety benefits, and efficiencies gained, will only skyrocket if autonomous vehicles become compulsory. When this happens, a wide range of industries will be impacted. Obvious contenders like insurance and law are already getting ready for the change. But less immediate sectors, such as construction and hospitality, will also have to adapt. As an example, private cars will shift from 'assets' to 'service'. Why should a car that can drive itself anywhere be locked in a basement parking lot for eight hours? Our entire society is going to have to adapt to an entirely new transportation paradigm.

## Editor's note

According to **Vinnett Taylor**, Head of IoT sales at O<sub>2</sub>, the new 'Driven' project could see fully autonomous cars in motorway trials from 2019. Driven is the result of a consortium of British tech companies (including O<sub>2</sub>), supported by £8.6m in funding from the Government's Innovate UK initiative that aims to test fully autonomous cars on British motorways in the next couple of years.

[Read the full post](#)

# Experimentation is the new innovation

## From January 2017:

*“Successful companies have shifted their mindsets towards experimentation. At the moment, the emphasis in many companies is on making a watertight business case for every single decision, and only proceeding after detailed analyses, multiple layers of approval and total buy in. In the digital era, we’re going to need to be quicker, and more confident, even when we don’t have all the details. Some of what we need to do can’t be fully pre-planned. We’re only going to know if it works by actually trying.”*

## The update: Enterprises and startups working together

“Experimentation is still the mother of innovation, but it has to be done with the ‘fail fast, fail cheap’ ethos of rapid prototyping and rigorous testing,” says Graeme. The only time you want to think twice about experimenting is when it stands to affect your core business operations and/or outputs.

If failure of a trial is going to negatively impact anything your organisation relies on, you need to find a safer way to experiment. Look at Google Glass for example. It was a little too ahead of its time, and might not have been a consumer or commercial success, but it’s certainly helped to pave the way for the increased levels of virtual reality adoption we’re seeing in enterprises at the moment.

Many big businesses either have seen benefit from supporting or partnering with startup incubators, who give them access to agile experimentation, while they reciprocate with access to enterprise mentorship and networking.

## Editor’s note

Couldn’t agree with Graeme more. Telefónica’s own startup accelerator, Wayra, was launched five years ago and now we’re seeing expand into smart transport and cybersecurity. There’s an insatiable appetite for innovation in the UK. Wayra has helped more than 160 startups raise over \$150 million in funding since it was founded in 2012. In addition to powering a number of worthy initiatives, it’s also given us access to new innovations which we can in turn share with our customers.

[Learn more about Wayra](#)



# Robots *won't* replace people

## From January 2017:

*“Robots aren’t going to replace people in the next 12 months and probably not in the next 12 years either. No matter how much technology changes, there will always be a hybrid system. Machines will, in time, replace the analytical, diagnostic and empirical aspects of work. What they cannot replace is the empathetic, intuitive, caring and creative aspects of our jobs.”*

## The update: Workplace technology still has a way to go

In our personal lives, we don’t have patience for mobile apps that require more than three clicks to deliver results, or make us wait more than three seconds to give us an answer.

What’s changed is that the way we access technology is very different to how we did 20 years ago. Historically, the cost of technology was significantly higher. It was your workplace that would put the latest technology in your hands to improve your efficiency. But today, as prices have dropped and innovation has accelerated, we often have better technology at home (and in the palms of our hands) than we do at our workplace. Broadly speaking, AI in the workplace has more to do until it is at the point where it can help us do our jobs in as real a way as it’s currently helping us to manage our heating at home, simplify shopping, and play our favourite tunes.

So, while workers are still not really in any danger of being replaced wholesale by robots, organisations do risk falling behind their competitors if their internal IT continues to hinder people’s ability to do their jobs, instead of enabling them.

## Editor’s note

We’re working hard to bridge the divide between the way our customers experience technology at home and when they deal with us. Last year we ran a trial using Facebook’s Messenger platform integrated with a ‘smart bot’, programmed to deal with a range of queries using its own artificial intelligence capability. We’re also trialling Amazon Alexa linked to My O<sub>2</sub> to improve recognition-based contact routing, and to drive deeper analysis of customer needs and behaviour.

**Mark Gait**, Head of Customer Service at O<sub>2</sub>, has written an article that goes into greater detail about how we’re bringing technology to customer service here.

[Read the full article](#)

# Closing thoughts

**“Ultimately technology will get us so far, but we still need to agree to achieve a common purpose with the tools available to us.**

What’s important is that we seek inspiration and understanding from all places, that we keep our eyes on the horizon and imagine what the technology of today will look like in three, five, and ten years’ time. What innovations are already present today that are in their infancy, and might explode in by 2020?

One clear aspect is that IT departments need to be enablers of innovation, not the gatekeepers of legacy infrastructure. IT should be the hippest, coolest, most switched on department in the business. Driving experimentation, and the adoption of new technologies. Not just blocking people from using Facebook in their lunch hours.”

**Graeme Codrington**

It used to be said that when you got a job, you’d have a job for life. We’ve now accepted that the current generation will move through job roles at an accelerated rate. Organisations who want to thrive are going to have to adapt, or they may find that their approach to technology has the power to turn away their best talent – and potentially even drive their industry into obsolescence. It won’t be the robots, AI, or machine learning that are going to change the way we work. It’s will be how accurately we’re able to identify the forces for change, and how quickly we’re able to adapt to them.

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## Why O<sub>2</sub>

O<sub>2</sub> has been constantly reimagining how people work for the last 30 years. We’re trying to help make IT departments ‘the hippest, coolest, most switched on department in the business’. It’s why organisations across the public and private sectors trust us to help them reimagine the way they work.

**For more information on O<sub>2</sub>, our enterprise offerings, and our experience in digital transformation, please call 01235 433507 or visit [o2.co.uk/business](https://o2.co.uk/business)**





# The **2018** futurist forecast

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