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Welcome to the fifth edition of Chief Innovation Officer.

First of all, thank you for all the great feedback received for CINO’s last edition. Innovation continues to be top of many company wish-lists. In line with this, we cover some of the space’s most interesting developments and how they could help your company’s processes.

Businesses don’t often agree about the best way to innovate. Google, for example, prefers to adopt a ‘moonshot’ approach - where innovations are brought to the market rapidly - while Apple bides its time, looking at innovation from a continuous standpoint. We ask whether this continuous approach should be the way forward for your company.

Richard Angus also examines whether the Apple Watch has failed. Analyzing its release from a number of different perspectives, he looks at whether the watch’s uninspiring sales figures should be disregarded due to the product’s potential as a platform for future iterations.

Additionally, James Ovenden investigates if the decision made by a Californian Labor Commissioner, which states that Uber’s drivers are employees instead of contractors, is going to have an impact on the app’s future.

We also evaluate Ford’s new approach to self-driving cars and the chances of them being available on the market in the not too distant future.

To add to this, we look at whether Google’s vigorous recruitment process is stopping it from employing innovative minds. Whilst Rebecca Thomson, who’s organizing our Product Innovation Summit, analyzes if cars will soon have no place in cities.

We hope you enjoy the magazine, it has been created to help spread new ideas within innovation and amongst Chief Innovation Officers, so if you have any feedback please get in touch with me at sbarton@theieggroup.com.

If you like the magazine, please share it.

Simon Barton
MANAGING EDITOR
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**WRITE FOR US**

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Google’s Moonshots are the sign of an ambitious company which not only wants to impact the wider business market, but society in general.

It has been claimed, however, that Continuous Innovation - the strategy deployed by Apple - is more beneficial. Here are five reasons why Continuous Innovation could triumph over ‘Moonshots’.

The company that coined the ‘Moonshot’ innovation approach hasn’t always experienced success with its radical projects. The Google Glass was dramatically axed at the start of 2015, just months after its launch in the UK. Sales figures have never been released, but the price of the Glass, coupled with its limited functionality, would have deterred many potential customers.

While the glass should still be seen as a technological breakthrough, it was simply too alien for most to get on board with. This is one of the main reasons why ‘Moonshots’ are very risky - too much change, too soon, can be unsettling. Due to this, more incremental innovations often more readily resonate with customers.

The ‘first-mover’ concept is a theory which holds real academic weight. When it comes to technology however, ‘Moonshots’ are not always the key to sustained success.

The first MP3 player was the Rio PMP300 and whilst it was a commercial success at the time, Diamond Multimedia - the company which developed it - failed to make any significant improvements to the product.

The Rio PMP300 would have been deemed a ‘Moonshot’ back in 1998, but it would be Apple and Sony that would have the most success with MP3 players, only releasing their respective devices in the early 2000s when the technology was there to make them a sure-fire success.

Google’s Moonshots haven’t all been commercially successful being the first-mover isn’t always necessary.
Ahead of Google’s annual shareholders meeting, co-founder, Sergey Brin, had to defend the heavy costs that come with the company’s ‘Moonshots’. The risks attached to ‘Moonshots’ are extensive, as not only do they cost a lot to implement, but even more so if they fail to capture the attention of the market.

Companies looking to ‘Moonshots’ must take advantage of new technologies and employ the best engineers to make their vision a reality. Doing innovation incrementally allows companies to train their staff appropriately and make continual investments in technology, which to some degree creates less of a financial burden.

When you look at the array of ‘Moonshots’ that Google has in its portfolio, it’s not hard to see why Forbes contributor, Haydn Shaughnessy, says:

‘I can’t help thinking: this is either the new American conglomerate or they really don’t know where another big earner will come from, one that will equal their ads revenues’

There’s logic to Haydn’s comment. Due to their very nature, ‘Moonshots’ are radical and therefore removed from a company’s core processes. This could lead to a reduction in focus and time lost on products which aren’t contributing anything to the company.

Continuous innovation allows companies to be inventive, but structured at the same time.
Boeing Chief, Jim McNerney, referenced Apple when announcing that they had opened up a new innovation centre in Silicon Valley.

The aircraft manufacturer is looking to move away from its ‘Moonshot’ stance on innovation, with an article in The Guardian stating:

‘Boeing’s chief executive, Jim McNerney, said last year that he wanted the company to be more like Apple in the way it innovates, rather than doing a ‘Moonshot’ development every 25 years.’

Despite being a leading innovator, Apple spent just $4.6 billion from 2006 to 2010, whilst Microsoft spend $31 billion. What makes this even more impressive is that it was in these years that Apple was in the midst of its iPhone project.

Apple’s success shows that incremental innovations can be more economically efficient and lead to products that can create an entirely new market.
ACCELERATE NPD,

...BUT DON’T RUSH IT
That’s why the Chinese government has put in place a policy of ‘indigenous innovation,’ a system which gives preferential treatment to ideas and products created by Chinese companies.
As China continues to develop, concerns have been raised about the nation’s reliance on foreign technology. In the eyes of the central government, the country’s economic growth would be better handled if its own technology was used to drive its production capacity. That way, Chinese companies, not foreign-owned ones, will dominate the marketplace, something which they feel will promote long-term economic sustainability.

That’s why the Chinese government has put in place a policy of ‘indigenous innovation,’ a system which gives preferential treatment to ideas and products created by Chinese companies. Almost every conceivable industry comes under the indigenous innovation policy, putting foreign companies, regardless of their speciality, at a considerable disadvantage.

It seems as if there’s a different set of rules for foreign companies operating in China. For example, 80% of all IP thefts from US based companies came from China in 2013, causing $300 billion in losses as cheap counterfeits became successful in the Chinese market. This led the US Trade Representatives to question China’s patent protection policy, especially if they want to become a technological powerhouse over the course of the next decade.

“Pfizer, the US drugmaker, had to call a halt to its vaccine sales operations in the country after an import license for one of its most successful products was not renewed.”
There’s evidence to suggest that China is now just too difficult a landscape to navigate. Pfizer, the US drugmaker, had to call a halt to its vaccine sales operations in the country after an import license for one of its most successful products was not renewed. The medicine, which was being used to treat children who have pneumonia, meningitis and sepsis, will be sorely missed, highlighting the somewhat backward nature of China’s innovation policy.

Some argue that the policy would make more sense if Chinese innovations were in fact homegrown. Many point to China’s attempt to create its own operating system as proof of this, as it was largely based on American company Linux’s open source system. This highlights that China still needs outsider influences to create technology that has the capacity to improve its citizen’s lives.

On the face of it, China’s indigenous innovation policy protects its own interests and puts the future of its economy in its own hands. It seems as if China, however, is resigned to the fact that it will have to relinquish some of its technology marketshare to companies from different countries. It was announced at the end of last year that China had dropped tariffs within 200 categories, a move which is likely to bring in $1 trillion in trade. This is the first time China has done this in 17 years.

Whether China can truly keep to the guidelines stated within its indigenous innovation policy remains to be seen. Its impact, however, could be substantial and damage the chances of us moving towards a truly globalized economy.
Apple’s first wearable instalment should be looked at as a platform for future models.

BY RICHARD ANGUS
INNOVATION DIVISIONAL HEAD
In March it was revealed that Apple had overtaken Samsung as the world’s most popular smartphone manufacturer. In the fourth quarter of 2014, the combined sales of the iPhone 6 and iPhone 6 Plus reached a total of 75 million, up from 50 million the year before. There is, then, reason for Tim Cook, Apple’s CEO, to be happy with how things are going at the moment. At the company’s fiscal second-quarter earnings call in April, he was more than happy to discuss iPhone sales figures, but when the Apple Watch was mentioned, he did all he could to sidestep the issue. This won’t come as a surprise to a number of technology publications, like Forbes, who felt that the Apple Watch would probably follow a similar path to the Google Glass - a necessary innovation to pave the way for future iterations.

In that sense, the Apple Watch can’t fail. Its release has highlighted where they could make improvements - many people have pointed to the watch’s design as an issue - allowing the next instalment to be released quicker and more to consumer taste. Yet, with Business Insider reporting that the product had sold-out within 10 minutes of its release - it begs the question as to why the Apple Watch’s sales have dried up so quickly.

Forbes reported that Pacific Crest Securities Analyst, Andy Hargreaves, had cut his 2016 sales estimate from 24 million to 21 million, with product reviews mixed and consumer interest in the watch lower than the iPod, an MP3 player which has been on the market for over a decade. UBS also slashed its shipment projection by 23%. These figures are fairly damning for the product and highlight that it’s failed to hold the public’s attention.

Although these projections aren’t positive, defining the Apple Watch’s success within such a short timeframe should be avoided. Like the Google Glass, Apple’s first wearable instalment should be looked at as a platform for future models. They will now be able to focus on improving the watch’s design before the next release for example. Apple will also argue that the watch’s sales have been much more impressive than that of the Google Glass, a similarly explorative product.

The Apple Watch’s impressive sales figures at the time of its release can, in part, be put down to the select few who need to own the latest tech. The Apple Watch hasn’t failed, however, but Apple’s definitely going to have to do more to win over the rest of the public when the next Apple Watch is released.
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IS UBER GOOD OR BAD?

BY JAMES OVENDEN
EDITOR
New startups are all seeking the label of disruptor. They want to portray themselves as revolutionary pioneers, blasting apart tired industries that have become riddled with vested interests. They’re taking the power back from moustache-twiddling profiteers and giving it to the consumer.

At their best, disruptors not only provide an alternative, they force traditional firms to adapt and compete to provide better value for the consumer. At their worst, they hide behind the tag and make their profit not necessarily by taking advantage of customers, but by exploiting employees and swerving regulation instead. Which is not really any better.

A recent court ruling in California has cast further doubt on which of these camps Uber falls into. The California labor commissioner has declared that the ride-sharing company’s drivers are employees as opposed to contractors, arguing that this is because Uber is ‘involved in every aspect of the operation’. Uber are appealing the decision.

The implications of the ruling are potentially substantial, most importantly in that they throw a bit of a grenade in Uber’s claims that it is just a marketplace rather than a transport operator. The ruling could see Uber forced to take responsibility for employees’ health insurance and various employer taxes, incurring large costs they previously didn’t face. It should be noted, however, that investors do not believe that the decision will have a significant impact on the firm’s valuation. When Uber was a smaller company, it required a more flexible work force, and contractors cater for such needs. Now it is larger, however, it has more predictable demand for its service and can benefit from having employees scheduled to work regular shifts.

Uber’s ability to avoid regulation has long been a concern, one loudly voiced by taxi firms who feel that doing so is an unfair competitive advantage. This is hard to argue against. Conditions for Uber’s employees at the moment are also notoriously fraught, as a result of both their freelance status and Uber’s ratings system. If a driver’s ranking - something which may force a better service, but can be hit by the whims of spiteful consumers - falls below 4.6 they are simply deactivated. They have none of the rights of a normal employee who is removed from his role - no tribunal, no right to appeal, no severance package. They are simply terminated.

This is not an issue exclusive to Uber though, but one faced by all freelancers, who are limited in their rights compared to employees. As the nature of employment shifts, with technology enabling people to work remotely and turn to
freelance and entrepreneurial means of making money, it may be worth updating employee rights. Freelancers are also compensated in other ways, which is why many choose such employment, enjoying the advantages of the flexible hours they work and often higher pay.

Industry disruption is too often painted as a moral crusade. The idea of traditional industries as profit gougers, charging as high a price as possible simply because there’s no other competition, is often untrue. Most are more expensive because the means they have of providing their product or service are less cost efficient than their disruptors. Uber has an extremely slick app, and it is undeniably better for the consumer, both in ease of use and cost. Its App is a better way of running a taxi service than what is currently available, and it doesn’t necessarily need to flaunt regulation as it once did to the competition.

What the California ruling means for Uber is as yet unclear, but with a valuation topping $40 billion, it can afford to treat its drivers well. The UK Government is keen to promote sharing platforms, which appear to be the future, and it is looking for the UK to become an incubator for them. To the extent that they launched an independent review into how to help them grow, albeit one run by Debbie Woskow, Chief Executive of sharing platform Love Home Swap. As the sector grows, the benefits they afford the consumer mean it is important that they are not discouraged, but it is also important that employees are not trampled underfoot.
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It’s impossible to predict the future
In an article in the Washington Post, Matt McFarland, Editor of Innovations, reminisced about General Motor’s (GM) Firebird II, a concept self-driving car which looked like something out of a 1960s Sci-fi film.

In the video, the driver has to call a control tower where he’s kept waiting for about two-minutes before he’s put in self-driving mode. While today’s self-driving cars demand an element of machine-to-person communication, the contact is thankfully much less than predicted by GM.

Google’s driverless cars have been the most significant foray into the self-driving space. Thanks to Machine Learning, the cars can bypass 80% of the unexpected issues they’re faced with, but rarer occurrences - like a cow being on the road - create problems. Due to this, Google has a system in place where the car can contact an assistant who can help solve the problem.

Ford, perhaps America’s most iconic automotive company, is looking to be the first major company to produce a fully autonomous commercial car. It announced that its aim is to introduce ‘driver-assist technologies’ to all its cars within the next five years. Although this would be a significant step-forward, it’s just the start of a long journey. Raj Nair, VP Global Product Development at Ford, claims that the adoption of driver-assist tech would be ‘the first of five development stages toward fully autonomous driving.’

This process, however, is being treated differently in Europe than the USA.

In Europe, emphasis has been placed on creating embedded systems where cars interact with one another and the smart infrastructure that surrounds them. David Wagner, Commentator at Information Week, states that American companies, like Google and Uber, are reluctant to rely on a smart infrastructure, instead concentrating on laser-technology which will be able to determine how close a car is to hitting something.

Both systems have their positive and negative aspects, but with the EU approach relying on cooperation between the government and private companies in order to get the smart infrastructure operational, it’s likely that the process will take longer than in the USA. This doesn’t mean that the EU approach is less likely to work, just that it might take longer to develop.

“Ford, perhaps America’s most iconic automotive company, is looking to be the first major company to produce a fully autonomous commercial car”
In his article, David Wagner states;

“European policymakers will likely hedge their bets hurting their chances, and Google will likely forge ahead knowing that if it waits for US policymakers it will never get done. So, like in every war, the real casualty is the little guy caught in the crossfire.”

Ford is currently experimenting with technology that will allow drivers to park in narrow spaces without getting stuck in their car. The driver simply gets out of the car, presses a button on their car-key and watches the car park itself. The car has sensors which mean that it stops when something’s in its way.

Ford’s latest venture into self-driving cars was unveiled at a press event in San Francisco this month, and is aimed at proving that the automotive company is still at the cutting edge of technology. There’s clearly some way to go, however, and as we find more and more companies experimenting in the space, the clearer it will be as to what the timeframe’s going to be before we have fully enabled self-driving cars.

The advantages of self-driving cars are abundant. The average person in the USA spent 157 hours driving their car last year. Imagine what could have been done if that time were used in a more productive way? Ford is hoping to give us an answer.
The concept of paying for something with your phone is not new. Back in 2012, PayPal, AT&T and even banks like Barclays, were clamouring to have a stake in the mobile payments space.
Yet whilst contactless payments are now commonly used, mobile payments have failed to pick up the same steam. This led the New York Times to suggest that mobile payments were ‘a solution in search of a problem’, and that people, in the main, see no reason to swap their credit cards for a phone.

Apple Pay arrived in October 2014, and there are now many retail locations around the globe which accept the service. Softcard, which was at the time Apple Pay’s main competition, found that interest in its own platform grew substantially once Apple’s service had been introduced. However, only 15% of iPhone 6 users have ever tried Apple Pay, although the majority of that 15% use the service on a regular basis.

Google’s former mobile payments system, ‘Google Wallet’, was released well before Apple Pay, in 2011, and is considered to be a failure by many. The internet giant’s business model, where as much information is stored about an individual as possible to produce targeted adverts, is deemed the main reason why the service failed to capture the public’s imagination - with privacy concerns the main sticking point.

As a reaction to the failure of the Google Wallet, a new service, Android Pay, is soon to be released by Google. It has already been praised
by a number of different media outlets - with Techradar highlighting the fact that Android Pay incorporates loyalty programmes as one of the reasons why it’s a better service than Apple Pay. Google is also so confident that it’s made its Android Pay free of bugs, it’s willing to give $40,000 to anyone who can find one.

The problem for Google is that there are so many potential providers of mobile payments out there. Some, like Amazon, are just getting started, whilst Facebook is still yet to venture into the space. In addition to this, PayPal is still the most established player in the payments market - and its acquisition of Braintree and Paydiant allows them to support P2P payments, as well as online and in physical stores, just like Apple Pay.

Apple, ironically, has helped Google revive its payment prospects. Apple Pay has allowed more consumers to experience the advantages of mobile payments, and that extra exposure means that the odds of Google’s Android Pay being a hit have shortened drastically.

It’s important that retailers have faith in mobile payments and implement the systems needed to give these platforms a chance. It’s only then that we’ll know if mobile payments is in fact looking for a solution to a problem that doesn’t exist, or if we’re on the verge of a mobile commerce boom.

“Apple Pay has allowed more consumers to experience the advantages of mobile payments, and that extra exposure means that the odds of Google’s Android Pay being a hit have been shortened drastically.”
As we move towards next year’s London Mayoral Election, Boris Johnson will be outlining why he’s the man to lead the city until 2020. There will be real pressure on all the candidates involved to address the issue of the city’s cycling infrastructure. So far this year, eight cyclists have died on the roads in London, seven due to collisions with lorries and one with a car.

Many believe that a city should commit to either supporting travel by bike or by car. European cities like Amsterdam and Copenhagen have infrastructures designed for cycling, and whilst fatalities occurred in both last year, occurrences are much lower than in London.
Electric bikes or ‘e-bikes’ are commonplace in cities like Berlin and Beijing, yet in the USA and the UK, they remain a relatively alien concept. Ed Benjamin, Senior Managing Director for eCycleElectric explains America’s reluctance by stating;

‘The U.S. is not a bicycle-for-transportation culture. It’s a bicycle for fitness/sports/recreation culture.’

If people in the USA are only interested in cycling as a way to improve their health, then the e-bike’s main advantages - that they’re faster, less strenuous and easier to park than say a scooter or a motorbike - will be lost on them.

With high-end e-bikes priced at $5,000, cost has clearly had an impact on the lack of success in the USA and the UK too. The cost is considerably more than a yearly pass on the subway - for example - making it an expensive option.

However, Karmic’s latest e-bike, the Koben, which will cost in the region of $1,337, will hopefully mark a change in the industry’s pricing policy. Karmic’s not the only company looking to bring affordability, its competitor, the Wave, is offering a crowdfunded bike which will retail at $999.

In an interview with Fastcoexist, Hong Quan, Karmic’s founder, states that;

‘A lot of e-bikes start with a regular bike and then you’re just adding and adding until you get this big huge beast of a monster that’s more akin to a motorcycle than a bicycle.’

The Koban’s designed differently. Everything is built around the battery, meaning that unnecessary parts can be easily discarded. This lowers the weight of the bike and makes going up hills, for example, easier.

Whether the Koban can get commuters out of their cars and on a bike is a different question. In the UK and the USA, it could be argued that infrastructural advances have to be made which improve the safety of the roads before people will even look at bikes as a better option when commuting.

If e-bikes are given the correct platform to operate efficiently however, there is no reason why people won’t start looking to them as their preferred method of travel.

“So far this year, five cyclists have died on the roads in London, all due to collisions with heavy-goods vehicles.”
One of the perks of being Google is that there’s never a shortage of talented people who are ready to pack in their current jobs to join the ranks.

With its modern offices and surreal workspaces, it’s a truly unique place to work. Yet getting a position there is a real challenge. It’s now officially easier to get a place at Harvard than it is to get a job at Google.

The search-giant gets around three-million applications per year, and out of that pool, a mere seven-thousand get their foot in the door - an acceptance rate of 0.2%.
Amazon has been touted as another company which sets a high bar for success. It has its ‘bar raisers’, but to even get an interview at Google you’ll need to get through four separate people; the Recruiter, the Sourcer, the Coordinator and the Candidate Host.

Whilst this process is arguably necessary with the sheer volume of applications received, its almost bureaucratic nature has led some to suggest that it’s designed to slip people up, not get the best out of them. Making a good impression in one interview is hard enough, let alone four. If, however, you get past the preliminary stage, additional interviews will be held with a hiring committee, your potential boss and colleagues and if it warrants it, even Google’s CEO, Sundar Pichai.

This is, however, the dumbed-down version. Before, recruiters would ask candidates brainteasers, which according to Business Insider, were ‘outright ridiculous’ - a quick Google search will find the list. Thankfully, some of these questions have been banned, taking at least some of the pressure off candidates.

Here are five of the most memorable:

1. Explain the significance of ‘dead beef.’
2. Design an evacuation plan for San Francisco.
3. How many vacuums are made per year in USA?
4. A man pushed his car to a hotel and lost his fortune. What happened?
5. Why are manhole covers round?

The process sets an incredibly high bar for success, which is exactly what Laszio Bock, the SVP of People Operations at Google wants. He states that, ‘a good rule of thumb is to hire only people who are better than you’, which judging by the process explained in this article, is a pretty difficult thing to do.

The jury’s out as to whether Google has it right. The company’s clearly doing well at the moment, with its fourth quarter profits up by 30% from the same time last year. But making candidates jump through so many hoops can mean hiring people who are good interviewers, not necessarily good employees.

But in this case, most good employees may well be good interviewers. Google demands strong interpersonal skills, and if the pressure that comes with the process is too much for a candidate to deal with, they’re probably not right for the company. You can get lucky in one interview, you can’t in four.

Jobs at Google - according to a survey from Glassdoor - are well paid. Google’s engineers in Silicon Valley, for example, earn $128,000, whilst someone doing the same job at Facebook earns just under $120,000. Couple that with the company’s notoriously fun working environment, and it’s easy to understand why the company is so successful on the recruitment front.

Google’s not going to stop getting millions of applications. They didn’t when some of their questions included; ‘How many piano tuners are there in the entire world?’ , so why would they now?
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