

The Great Hack brings clarity to Cambridge Analytica scandal



Emmet Ryan A Netflix documentary on the exploitation of Facebook data by the now defunct political consultancy is a timely warning to the unwary

Icarus began life as a documentary on its maker's limited trial use of performance-enhancing drugs, yet ended up being central to the Russian sports doping scandal. Capturing the Friedmans was meant to be about a clown, but took a far darker turn. And the makers of Hoop Dreams could never have expected the radical life changes that its subjects would experience.

The Great Hack, which was released last week on Netflix, gets its surprise element from the central figure it follows throughout the scandal of Cambridge Analytica, the now-defunct British political consultancy which is accused of exploiting Facebook data and using dirty tricks to manipulate elections.

The star of the show is not Alexander Nix, the company's former chief executive, who makes what is in effect

a cameo appearance. Nor is it Chris Wiley, the first whistleblower. Were this a straight-up drama, Carole Cadwalladr would be the focus, but even the Observer journalist who broke the story would yield top billing to Brittany Kaiser, the former director of business development at Cambridge Analytica.

Kaiser's eagerness to essentially let the film-makers see everything about her role in the affair and its aftermath

gives a perspective that most viewers would simply not expect. It's clear that she regards the film a means to rebuild herself, to change her portrayal from willing participant to whistleblower on a journey to somehow becoming a privacy advocate.

She is what makes The Great Hack worth watching for those who have followed the Cambridge Analytica story from the off, from Cadwalladr's first piece with Wiley to the subsequent revelations about the Brexit campaign and many parliamentary hearings.

Those who have followed the story, however, will be disappointed at the lack of new information, and will also be left wondering why Arron Banks, co-chairman and main funder of Leave.EU, tried to stop its release. That should not deter you from

watching it, because it does tell a clear story.

It essentially uses Kaiser to add some coherence to everything that happened, making it easier for more people to understand what they should be concerned about.

The Great Hack has arrived at a time when there is clearly an important role for such clarity. FaceApp's explosion, with most of the people downloading it oblivious to its terms and conditions, shows just how easy it is to penetrate the average user's data.

Through Kaiser's raw and seemingly unfiltered commentary on all that happened, we get an idea of how easy it was for Cambridge Analytica to succeed, and how easily a similar scandal could sprout up. For those with only a passing

knowledge or memory of the scandal, this will be an absolute eye-popper of a piece. The near two-hour run time feels a little excessive at the start, but the pace picks up in the final third. Cadwalladr, by being a reasonable person, is almost overshadowed by the cameos. As with his few public appearances at the time of the scandal, the footage of Nix is like something out of an Armando Iannucci production.

Wiley, the face of the story when it first broke, barely features at all. That will surprise most viewers, but as the story unfolds, his relative absence will make more sense.

It's no Icarus - which remains the flagship documentary in Netflix's library - but that's a high bar to aim for and The Great Hack gives it a good shot.

A Peex at the potential future of live music

With its wearable audio receiver, Peex is attempting to transform the live music experience by democratising the best seat in the house, writes **Jack O'Kennedy**

Poor quality sound is the live music scene's dirty little secret. A case in point: Twitter erupted with complaints following the Spice Girls' recent Croke Park gig, with many fans reporting severe sound issues, and some barely able to make out their "zig-a-zig-ah's".

Bruce Springsteen's show in the same venue in 2016 generated similar ire, as did Hall & Oates's performance at the 3 Arena a year later. Ultimately, it doesn't matter whether you're Baby Spice or the Boss - no act, it seems, is immune to sound problems. So what is the regular gig-goer to do?

Enter Peex. The brainchild of Graham Tull, chief technical officer and co-founder of Powerchord, the Peex rX is a wearable receiver that a concert-goer pairs to an app on their phone via Bluetooth. They then insert the attached ear buds and get a direct feed of the sound from the stage.

The desired effect is that it doesn't matter whether you're sitting in the acoustic sweet spot or in the worst seats in the house - the end result will always be the same.

"Though the PA and the sound engineers do an absolutely fantastic job, sound has a horrible habit of destroying itself for no good reason," Tull told *The Sunday Business Post*. "You may just be unlucky and be sitting

in a place where you don't hear the clarity of a guitar, or where the bass is overwhelming. With Peex, you have the personal control to bring back those elements that are naturally lost or destroyed by the physics of the room."

The receiver contains a microphone which detects the audio from the stage when it reaches its wearer. A digital fingerprint of the sound travelling through the venue's PA is created - this tells the receiver what to expect, leading to what Tull described as "an electronic game of Snap" that matches the feed from the stage to the output in the user's earbuds at precisely the right moment.

What this means, in theory, is that the person hundreds of feet away from the stage is having the same experience as the person in the front row.

Peex provided a live demonstration of the technology during Elton John's recent gig at the 3Arena in Dublin. After downloading the app and pairing it with the Peex rX, I stood by the concession stand, about as far back from the stage as I could get.

Despite the thick layers of concrete in between myself and the stage, I could soon hear the familiar



Graham Tull of Powerchord: the company's Peex rX technology proved a winner at the recent Elton John concert in Dublin's 3Arena



opening bars of Bennie And The Jets

with perfect clarity. As the piano virtuoso began a two-hour-plus performance, I strode up and down the length and breadth of the arena. Much to my surprise, my audio re-

mained full and consistent wherever I roamed.

When I eventually made my way to a very good seat just left of centre stage, I expected to discard the wearable device. But even at a short distance from the performers, the receiver offered a richness to the sound that enhanced the show.

Peex also allows you to customise your concert through the use of five faders, which give personal control over the levels of the vocals, piano, drums, bass and guitar.

At the moment, Peex is renting its

wearables to punters for €10. There's also talk of offering the device as an add-on when gig-goers are purchasing their tickets online, as well as the option to buy a device outright.

"There are a number of different ways to monetise it," said Tull.

"But what we really want is for the fans to understand it as a value proposition.

"They're getting something that is, of course, extra money to the ticket, but it's doing something for them that may turn a good show into a great show."

Gadget Watch



OnePlus 7 Pro

Price: from €219 bill pay on Three Ireland

OnePlus takes on Huawei with its powerful 7 Pro

The top of the Android table has been dominated by Huawei for well over a year now, with Google the only handset maker putting up a decent challenge. Samsung continues to deliver crackers, but not on the same level. It is, unsurprisingly, about time that OnePlus decided to shake things up a bit.

The OnePlus 7 Pro oozes power from the off. The slightly heavier feel to the handset hints at the oomph inside, but the exterior is where you first sense it. The 1440p display is fantastic, a true all-screen effect that nobody on the market is matching right now - not even Google.

At more than 16cm, it's a long phone, and some users will find it difficult to manage with one hand.

At 48 megapixels, the rear camera comes closer to what Google and Huawei are offering than Samsung. It still trails Huawei by some distance, mainly because everyone trails Huawei by some distance. But there's a little twist that really rocks: a pop up camera for selfies.

The price is where things get interesting. OnePlus is noted for taking on flagship brands; now it is making the transition into being one of the phone makers with a target on its back. The billpay option is a little cheaper than you can expect for Huawei, Samsung or Google flagships, but it's pre-pay where the gap is more noticeable. At €720, it costs about €300 less than the other Android big guns or the top-end iPhone.

That is still a lot of money to shell out on a phone, so it's hard to call OnePlus a true budget brand any more, but it's in that sweet spot where you are getting almost everything that the top dogs deliver, along with a few extra bits for a cheaper price.

Is it enough to take a medal spot for 2019? Yes, with one caveat. There are still new devices from Huawei and Google that are likely to supersede it by the end of the year, while Samsung also has more on the way. For now, the 7 Pro puts OnePlus neatly into the silver position behind the Huawei P30 Pro, and given that we're past the midway point of the year, that's nothing to sniff at.

The combination of price, features and responsiveness makes this a serious entry into the market. There's never been a better time to be an Android user.

VR can be good for the mind

Workplaces will increasingly use virtual reality to help with employee wellbeing and training, writes **Niall O'Driscoll**

As mental health has become more widely discussed, so too have the digital interventions which aim to help people maintain a healthy mind as well as a healthy body.

This is big business, with the sector set for continued significant growth worldwide - it has been predicted that it will be worth nearly \$30 billion globally within the next five years.

The digital transformation of mental health services is happening across the board, from telephone, text and email counselling to self-administered solutions, to apps and websites such as Silvercloud, Big White Wall and Be Mindful.

Virtual reality is also expected to play a not insignificant part. Work carried out by

vStream with its clients and partners has used the idea of neuroplasticity, a theory that the brain is malleable, and that behavioural patterns can be changed.

One of the early uses of this was helping a person overcome their fear of heights through exposure therapy techniques. The person puts on a VR headset and is in a fully immersive, visual environment - a building with a lift.

Taking the lift to the first floor, they are encouraged to walk out from a balcony on a virtual plank of wood.

Immediately a fear response is triggered via the amygdala, the part of the brain that manages this response. But while the instinct is to be fearful, the conscious part of the brain knows that this is only a virtual world, and that this is a safe environment.

Once the person becomes a little more relaxed, and their levels of stress and flight response decline, they are brought up to the second floor in this virtual building and exposed to a greater height. As the immersive experience carries on, the person's emotional response to heights is altered.

Immersivity in VR makes for a very believable experience, convincing human instinct that it is, in fact, real. It becomes an experience that can form memories. As a method of training in the likes of manufacturing, for example, it is proving invaluable.

Where two parts of the brain light up when a simple power point presentation is shown, for example, with immersive techniques five parts of the brain are triggered. This allows for greater recall and, essentially, the creation of a memory.

Rather than trying to remember a lot of 'two-dimensional' information, the person recalls a whole memory, allowing for a more instinctive response to a challenge, for example assembling or op-

erating a machine. The cost of stopping production on a factory floor can be eliminated, with mistakes significantly reduced.

When it comes to stressful workplaces, a new dynamic can be formed. As well as training employees in operational matters, health and safety and so on, cognitive behavioural techniques can be digitised to empower employees to 'inoculate' themselves against inevitable stressful situations at work.

It is not the technology itself that is the solution - it is the application of already proven techniques through these tools that is showing greater efficacy. Society is already grappling with the mental health issues that are associated with so many online platforms, especially with a younger generation where these things are so integrated into how they live.

Digital mental health services are offered in some third-level institutions, but there is a real need for them to be delivered earlier and in a more pervasive way throughout society. Second-level stu-

dents, who are so inundated with digital challenges across social media, require a digital health solution also. These digital health tools need to be as pervasive as the tools that pose a potential threat.

Likewise, in the workplace, a 'mental gym' will inevitably become an offering, if not a regulation, as health and safety and operational training. This is good for employees and good for employers, reducing stress-related absenteeism and encouraging a happier, healthier workforce.

The most important thing a company can look to do as it embraces digital transformation is to ensure it develops a human-centric experience approach, always thinking and designing the solution from the person's point of view, be they a technician, a patient or a consumer.

Technology should be used to improve the human experience, not replace it.

Niall O'Driscoll is co-founder of the Irish firm vStream, which specialises in innovation, consultancy and digital transformation; see vstream.ie

Consumer brands giant pushing the envelope with recyclable products

BY HANNAH O'BRIEN

Henkel, the chemical and consumer goods giant whose brands include Persil, Sellotape, SuperGlue and Loctite, is aiming to expand and improve its range of recyclable products.

Rajat Agarwal, the company's head of lifestyle and sportswear, said that it was making the shift because "sustainability is one of the most discussed topics globally".

"We are more and more conscious of the use of resources and where resources come from," he told *The Sunday Business Post* at the firm's headquarters in Düsseldorf.

Agarwal said the 143-year-old business was now dedicated to growing a "circular economy" whereby it designs and produces recyclable products, promotes reuse and improves the quality of recycling material.

One example is its new re-

cyclable padded envelopes. Some 20 billion envelopes are used in e-commerce packaging every year. Traditional bubble-wrap is not recyclable and paper packaging is on the rise, so Henkel is getting in on the act.

"We've looked at the design and come up with a new solution," said Agarwal. "We've created a new mailer which is very advanced in terms of design, process, shape and also the special kinds of adhesives. The result is an envelope that is entirely paper-based, which makes it recyclable."

The overall goal is sustainable development combined with economic success, he said. Amazon is using the packaging in selected markets, while the envelopes recently received the 'widely recycled' classification and will carry the How2Recycle label.

Henkel is also looking to expand its 3D printing offering, working with software

designers and printer equipment manufacturers.

"It's a really young but promising market. It affects everything, from automotive to electronics, and medical to consumer goods," said Michael Todd, head of innovation and new business at Henkel.

"The transformation is really about our customers. They are coming to us saying 'you have technology in 3D printing, can you make this part?' The customers are pulling forward the materials and finding new applications for 3D printing.

"That is a programme that we're investing in for five years into the future. We want to be early into this development stage so that we will be known as the material leader for 3D printing when it becomes double-digit percentages for our sales.

"I truly believe this will transform manufacturing five to ten years from now."