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Gaming at 33,000 feet – But keep an eye on your data

With satellite connectivity more ubiquitous, affordable and high-speed than ever before, the global mobility markets are really taking off. Aviation is seeing huge gains in both traditional inflight connectivity and entertainment spheres, as well as new applications, such as shopping, social media, and live gaming. There are also new challenges on the consumer front, relating to data privacy.

When we consider the amount of technology around us today, it's undeniable that we're living in a golden age. Our homes and daily lives have become stuffed full of Smart devices like phones, tablets, TVs, coffee machines, utilities meters, all connected and communicating by high-speed Internet. We've certainly come a long way from dumb phones, dial-up Internet and coat-hanger TV aerials in the last couple of decades; today, we have fridges that can place orders for their own supplies, vehicles capable of driving themselves, and automatic monitoring of everything from ships at sea to agricultural equipment, thanks to the Internet of Things.

Where this new era of connectivity and Smart devices really comes into its own, is the mobility sector. Thanks to the latest generation of high-speed, high capacity satellites, vessels on land, in the air, or at sea can stay just as well-connected as the average office or home. That opens up a whole new host of options for consumers; I can get a bus

and do my grocery shop online at the same time; I can do my Internet banking and pay utility bills while on a train to Europe; I can even shop for Christmas and birthday gifts from the (relative) comfort of a transatlantic flight!

It's no wonder the inflight connectivity and entertainment as a market is booming. There's some dispute over how much - Industry Research estimates a CAGR of 7.77 percent in 2019-2024, while Kenneth Research expects a CAGR of 18.65 percent in 2018-2024 - but everyone agrees, it's on the up, and by quite some margin. And this inflight connectivity is only set to get faster. Some airlines are now looking at incorporating 5G connectivity, only very recently launched, to boost high-speed air-to-ground capabilities, with several Chinese airlines reportedly exploring their options.

Indeed, there have been a number of noteworthy developments in inflight connectivity over the last twelve months that signal changes to day-to-day operations might be looming.

Inflight espionage

It's 2020, and digital privacy plays a key role in the lives of billions of people around the world. Every day we're subject to adverts for cybersecurity apps, reminders on using complex passwords, and not using the same PIN number for everything. And every day, countless individuals, companies and government institutes are subject to a huge variety of breaches, some successful and some not.

Accordingly, many of us are becoming increasingly wary in all aspects of life; we use antivirus software on our devices, we shred important documents, and we incorporate increasingly complex systems, such as iris or fingerprint scanning, to access our electric devices, homes, and places

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of work. Privacy and security are of the utmost importance today for so many of us. We reproach the huge amount of monitoring of our everyday lives, with 'Big Brother' watching over us, despite state assertions that it's in our own interests.

And yet, in August 2019 it was revealed that an updated privacy policy means that Cathay Pacific customers are having their movements and preferences recorded at the airport and on board planes, and that the information and images will be stored 'as long as necessary,' as described by the airline itself.

Forbes reported that the new policy was brought into effect in August, and that images taken from CCTV both on the ground and in the air, as well as other data, could be held indefinitely.

Cathay Pacific is reportedly collecting "information such as previous travel arrangements, feedback about your experiences, details of lost luggage and other claims, your use of our inflight entertainment system and inflight connectivity, your images captured via CCTV in our airport lounges and aircraft."

That's a lot of very personal information for a commercial airline to keep safe, and even the company acknowledges that while they'll be making security a priority, "no data transmission over the Internet ... can be guaranteed to be secure from intrusion." This follows 2018 reports that 9.4 million Cathay Pacific passengers had their data, including passport numbers and ID cards, stolen after a particularly large breach. The airline also admits that passenger data could be shared with third party partners for marketing purposes.

Cathay Pacific isn't entirely alone in worrying passengers when it comes to sensitive information. Earlier in 2019, passengers on board American Airlines, Delta Air Lines, Singapore Airlines and United Airlines reported that the inflight entertainments screens now come complete with cameras. The airlines asserted that the cameras are not active, and later covered the cameras to placate passengers. Some airlines are reportedly planning on utilising the cameras to enable video calls.

There's a lot at stake here. With Cathay Pacific now openly storing customer data – and we all know that, in the right hands, data is money – the door is open for other airlines to follow suit. Some passengers are bound to vote with their feet. While these kinds of data storing activities are limited to a handful of airlines, that may change in the years to come as more airlines get in on the action. For some customers, it's not so much the sale of their data, but the storage itself – people still like to believe in their right to privacy and

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anonymity, but in an increasingly digital age, this is fast becoming a distant dream. Meanwhile, for those with malicious intent, airline cybersecurity measures are likely to crack eventually, with massive quantities of data ripe for the taking.

The inflight gaming revolution

The gaming sector has been quietly transformed in the last decade or so; no longer the preserve of teenage boys hiding out in their parents' basements, clicking buttons until all ours of the morning, gaming has become extremely mainstream, thanks in part to the recent changes we've seen in society. With hugely popular extremely clever celebrities such as Brian Cox and Neil deGrasse Tyson making being smart 'cool,' (although I'm told by our younger News and Social Media Editor that the word is now 'safe,' and only old people are using 'cool'), and hit shows such as The Big Bang Theory celebrating high-IQ scientists, we've seen a massive surge in interest in traditionally geeky pastimes, such as comic books, cosplay, and gaming.

The demographics of gamers have shifted significantly. The average age is much older than you'd expect, with millennials making up the largest proportion of today's gamers, and women are increasingly coming on board. There's also huge money to be made in gaming. We recently saw a UK-based 15-year-old boy win a global Fortnite challenge, bringing home half of a £1.8 million prize (apparently, he plans to buy his mother a house). Gaming is now big business, with millions of people around the world not just gaming but watching videos of other people gaming on platforms like YouTube and Twitch. Moreover, competitive gaming is moving beyond the Earth and into the skies, thanks to high-speed satellite connectivity.

Gaming tournament

Over the summer of 2019, Israel's EL AL airline hosted its first gaming tournament inflight and streamed it to tens of thousands of watchers back on Earth utilising connectivity from Viasat. The flight from Tel Aviv to London hosted four or Israel's biggest YouTube stars embarked on a live gaming competition.

"EL AL is proud to be the first airline to present a gaming flight out of Israel and to enable the gaming tournament for leading gamers," said El Al Vice President of Commercial and Industry Affairs Michael Strassburger. "This is an innovative marketing step made possible by EL AL's high-speed Internet experience and varied media content that we offer our customers."

The participants, which included gamers and YouTube stars Eyal Yossef, Shlomi Ben Atar, Ben Keysar and Guy Podolitch, competed in a number of games, including Marvel Ultimate Alliance 3, FIFA, Super Smash Bros and Brawlhalla, on Nintendo Switch consoles. Tens of thousands of viewers on the ground watched the live stream over YouTube, Facebook and gaming website Twitch, facilitated by Viasat's satellite network.

EL AL's move towards inflight gaming doesn't stand in isolation. In February 2019, Panasonic Avionics Corporation and IMG announced esports as the latest addition to Sport 24 Extra's live inflight entertainment programming. The live, organized, competitive gaming will be accessible to



*Some familiar faces were on board for the gaming flight too.
Photo courtesy EL AL ●●●*

passengers via the IMG-owned and produced Sport 24 Extra channel, which is available exclusively inflight on Panasonic-equipped aircraft. According to Panasonic, introducing esports to the aircraft cabin will enhance the passenger experience by providing more engaging inflight gaming viewing options. It will also improve operational efficiency by providing long-lasting value on investment and drive new business opportunities through advertising and attracting a new audience.

"As passengers get younger and airlines become more digital, the need for new and engaging content is increasingly essential to compete," said David Bartlett, Chief Technology Officer of Panasonic Avionics Corporation. "Esports brings significant value to an airline by enhancing the passenger experience with engaging content that has garnered one of the fastest growing audiences in entertainment. Similar to traditional sports, esports is most valuable when broadcasted live. Past live esports tournaments and matches have seen viewership surpass traditional sports. For airlines, these innovative solutions provide a game-changing way to differentiate themselves in the market, and a unique way to drive ancillary revenue generation."

