Tech, media and telco predictions for 2017: Deloitte Africa

Deloitte Africa predicts that over 300 million smartphones, or more than one fifth of units sold in 2017, will have machine learning capabilities within the device in the next 12 months. The company's 16th edition of the Technology, Media & Telecommunications (TMT) Predictions showcases how mobile devices will be able to perform machine learning tasks even without connectivity which will significantly alter how humans interact with technology across every industry, market and society.

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However, over time machine learning on-the-go will not just be limited to smartphones. These capabilities are likely to be found in tens of millions (or more) of drones, tablets, cars, virtual or augmented reality devices, medical tools, Internet of Things (IoT) devices and unforeseen new technologies.

"Machine learning is fascinating as it will revolutionise how we conduct simple tasks like translating content, but it also has major security and health consequences that can improve societies around the world," said Mark Casey, Deloitte Global Media & Entertainment & TMT Africa leader. "For example, mobile machine learning is a strong entry point to improve responses to disaster relief, help save lives with autonomous vehicles, and even turn the tide against the growing wave of cyberattacks."

Another innovation with the power to transform the world is autonomous braking. Deloitte Africa predicts that in 2022, in the US alone, fatalities from motor vehicle accidents will have fallen by 6,000, a 16 percent decline in 2017. The greatest factor in this decline will likely be automatic emergency braking (AEB) technologies. It is expected that AEB will be so widely adopted, affordable, and successful at helping to save lives that it may even slow down the movement towards full self-driving cars.

IT-as-a-Service to become 35 percent of IT spend

It's not just about developing new technology, but how this technology is procured that is set to transform how we live and work. Deloitte Africa predicts that by the end of 2018, spending on IT-as-a-Service for data centres, software, and services will reach nearly $550 billion worldwide, up from $361 billion in 2016.

Although flexible consumption-based business models will not be ubiquitous by 2018, at over a third of all IT spending (35 percent), they're expected to exceed half a trillion dollars and grow rapidly. This shift will begin to transform how the IT industry markets, sells and buys technology across businesses worldwide.

"In 2017, technology, media and telecommunications are set to become even more mobile. Combined with smarter and faster capabilities, these innovations will force businesses, governments and consumers alike to evolve how they operate and create opportunities for wide-spread transformation across industries," continued Casey.

Additional findings include:

• **Cyber attacks enter the terabit era:** In 2017, Distributed Denial-of-Service (DDoS) attacks, a form of cyberattack, will become larger in scale, harder to mitigate, and more frequent. There are expected to be on average a terabit/s (Tbit/s) scale attack per month, over 10 million attacks in total, and an average attack size of between 1.25 and 1.5 gigabits per second (Gbit/s). This escalation in the DDoS threat is largely due to the growing number of IoT devices, online availability of malware methodologies which allow relatively unskilled attackers to corral insecure IoT devices and use them to launch attacks, and access to ever higher bandwidth speeds.

• **Biometric security reaches the billions:** The active base of fingerprint reader-equipped devices will likely top one billion for the first time in early 2017, with each active sensor used an average of 30 times a day, implying over 10 trillion aggregate presses globally over the year. With the rapid pace of access and adoption of this technology, the challenge is to determine which additional applications could use fingerprint readers and other biometric inputs to provide rapid and secure authentication.

• **Have we reached peak tablet?** 2017 sales of tablets will likely be fewer than 165 million units, down by approximately 10 percent from the 182 million units sold in 2016, suggesting we have passed the peak demand for these devices. While the numbers vary by country, in terms of the preferred devices for various activities, there are three consumer devices that are at present leading tablets by a large margin: TVs, smartphones and computers.

• **Vinyl approaches billion-dollar sales:** In 2017 vinyl is expected to continue its remarkable resurgence, approaching $1 billion globally in revenues for the first time this millennium. New vinyl revenues and units are likely to enjoy a seventh consecutive year of double-digit growth in 2017, comprising seven percent of forecast global music revenues of about $15 billion in 2017. However, vinyl is unlikely to ever be music's major growth or profit engine, with the future of music squarely focused on digital.

• **The final frontier for digital navigation is indoors:** As of 2022, at least a quarter of all human and machine uses of precision digital navigation are expected to include an indoor portion or be for an entirely indoor journey, compared to less than five percent of all uses in 2017. Being able to locate people and objects when indoors will be transformative, and is likely to benefit most vertical sectors, and have impacts on government, business, and consumers alike.

• **5G: A revolution in evolution, even in 2017:** Significant, tangible steps towards the deployment of 5G, the fifth generation of cellular networks, are expected to take place in 2017. Planned upgrades to 4G networks, as well as the performance of the first limited 5G deployments, should acquaint users and operators with several of the most important features of 5G networks, including significantly higher speeds, lower latency, and support for low-power low-bitrate IoT

devices and sensors.

• **TV advertising to remain flat:** While US TV advertising revenue in 2017 is expected to be flat with 2016, this forecast is a positive outlook for an industry that too often is declared a vanishing business - flat is the new up. Spending will remain steady due to several factors including daily TV viewing remaining robust, ad skipping is relatively limited, older Americans are watching slightly more TV, and streaming continues to lack TV's mass appeal for certain kinds of advertisers.

Now in its 16th year, Deloitte Africa's annual TMT Predictions provides an outlook on key trends over the course of the next one to five years in the technology, media and telecommunications industry sectors worldwide.