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Don't Be Left Behind by the Digital Transformation

*This article is based on an exclusive stars interview with **Dr. David Harmon, Vice President of Huawei Technologies., Shenzhen, China.** It was conducted by Jacqueline Tao from the Energy Studies Institute, National University of Singapore, on the sidelines of the 5th stars China symposium in April 2017 in Chengdu. This article has been edited by David Erne, Director Asia at stars.*

At the cusp of change

The business world is rapidly changing. Only 18% of all Fortune 500 companies today already existed in 1955. One of the sectors that is experiencing unprecedented change is the ICT sector.

Between now and 2020, the number of people using the internet will double, the time spent on the internet will triple and the number of applications connected with ICT systems will increase fourfold. The amount of available information will at least increase tenfold. Today, 98% of all businesses around the world use the internet. 30% of all businesses have transactions over the internet. There will also be transformational changes in the speed of these connections. By 2020, 5G connections – which transmit information 100 times faster than 4G connections – will be the default configuration for mobile communications. For many years, people were watching television with a 2k capability which transmits data at a speed of 8-10Mb/s. 4k capability – with transmission speed of 30Mb/s – is already in operation, and 8k capabilities are not far away. All these numbers are going to increase exponentially in the years ahead.

As a result, industries like transportation, energy or financial services will all become connected to data storage facilities which will in turn enable new innovations to further improve products and customer experience. For instance, ICT innovations make possible a Hyperloop connection between Dubai and Abu Dhabi that can transport passengers at a speed of 1200 kph, which is 400 kph faster than the speed of Jumbo jets. Augmented reality and virtual reality will be a game-changer for aviation safety. In the financial industry, big data analytics are deployed for credit rating, among other applications. The bottom line is that the internet is already centre stage for most businesses. The future of ICT has already arrived. In fact, 66% of Fortune 500 companies now place digital transformation at the centre of how they modernize their business operations.

Cybersecurity as an ongoing concern

While everything is going digital, there are increasing concerns over how safe and secure these digital products are. Without trusting its safety, consumers will not use the product. There is still a long way to go in this regard. In the EU, for instance, a significant proportion of the population is unwilling to use cross-border e-commerce transactions as they have doubts about the safety of those systems.

A concerted effort of a number of stakeholders is needed to make sure that these products become safe and secure. Most companies have already established cybersecurity departments which are headed by senior staff, representing the high emphasis being placed on such issues. In addition to internal procedures, independent third-party evaluations also help to identify lapses in internal control or systemic

weaknesses. As a leader in cybersecurity, Huawei has established a series of internal and external protocols to deal with cybersecurity threats. Huawei's Cybersecurity and Privacy Committee consists of top representatives from its key business departments. Huawei also periodically releases white papers identifying global ICT challenges. As best practice, Huawei encourages other companies to go beyond self-evaluations and to incentivise, if not request, accountability from their upstream suppliers to look at their cybersecurity measures. The transfer of best practices in cybersecurity is not restricted to companies in the same chain of business. In fact, Huawei has learnt a lot of best practices from their customers. Governments and international organizations also have a role to play in setting relevant cybersecurity standards for critical infrastructure such as energy and transportation. This will facilitate faster and safer deployments of new technological solutions.

Embracing the digital transformation

To deal with digitalization, money is not the solution. There are countless examples of companies who have spent a lot of money on digital transformation with limited returns. The key is to be strategic in the digital transformation process, to invest in carefully selected processes. A smart approach is to first identify what the desired outcome is. In order to be successful, companies first have to understand what they are seeking to achieve with the digital transformation of their business. After the desired outcome has been defined, suitable partners have to be sought out who can deliver the required technological solutions.

As a technology and infrastructure company, Huawei offers a variety of solutions that can tackle these challenges. For instance, Huawei sets up wireless internet networks in sports stadiums or it deploys data information storage centres for various applications. While the technologies behind these solutions may be difficult to explain, the problem they wish to solve is simple: to allow sports fans to enjoy the game without concerns about network congestion or to provide a platform where information can be stored safely and securely.

Research leads the way forward

While the future of ICT is bright, the only way to ensure continued success is through extensive research. Various companies, including Huawei, invest aggressively in research and development. In 2016, Huawei invested about 15% of its annual revenues of US\$11 billion in research, supporting 80,000 researchers in its research centre in Munich, Germany, and around the world. Huawei works in collaboration with multiple organizations to develop basic science and to deliver innovative products and solutions. To enable further technological breakthroughs, the best results can only be achieved through cooperation among industry players and by bringing together the brightest minds from all over the world. No one company or one country can innovate on its own.

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