Digital connectivity can lead to new world order

By Ziad Salameh

Technology and digital economies can help humanity emerge from many of its present-day challenges but partnership with government, business, citizens, consumer is crucial.

Countries, regions, and the world at large faces a growing list of challenges. Food, water, job creation, and widening gap between rich and poor appear insufficient, driving social and political instability. However, there appear to be solutions to tackle these insurmountable challenges.

One of the most significant changes in the coming years will be the dramatic increase in global connectivity via the Internet. Internet of Things and related technologies will help to connect people, data and devices in all countries. Put together, the potential for countries to prosper in the coming decade is significant.

In this Digital Age that we have entered, 500 billion people and things will be connected by 2030. Countries and regions that were left behind in the Information Age will have the ability to move forward. They will have data and knowledge to make the right decisions helping their lives to change for the better. Standards of healthcare, education, and transportation will improve in these countries, that were once left behind.

As an example, across Middle East and Africa where we are looking at the highest growth rate in the world, 2.4 billion new devices and connections and 445 million new Internet users will be added by 2020. However, all these changes cannot occur without the network. Digital networks have the capacity to connect every person, every country, and every connected device.

Fourth Industrial Revolution

Those countries that foster digital activity will see new industries emerge, and experience accelerated development of traditional markets. This is why Broadband Internet has been categorized as one of the world's most important general-purpose technologies, with the capability to dramatically impact social structures and economies.

But even with Broadband Internet, regions like Middle East and Africa still have some way to go. Only 1 percent of the broadband connections will have a speed in excess of 100Mbps by 2020.

All these changes have brought the world to a tipping point. We are now in the process of transitioning into the Fourth Industrial revolution that is being built on digital economies and technology infrastructures. In this world, growth rates can be exponential and the way we live, work and relate to each other are going to change fundamentally.

Cisco has developed a Country Digitisation Acceleration strategy. Connecting the unconnected, accelerating GDP growth, creating new jobs, and building a sustainable innovation ecosystem are core principles that define digitisation. Country Digitisation Acceleration is a long-term commitment with national leadership, industry and academia to deliver outcomes faster and effectively.

By accelerating the national digitisation agenda, Cisco can help countries grow, create new jobs, provide innovation, and invest in a sustainable innovation ecosystem.

The challenges confronting the world are complex and cannot be solved by any single government, industry or organization. But these problems are not insurmountable, and one way to move forward is to connect social mindsets of young workers to power of technology.

Never before have people and companies been so motivated to help the world. A growing number of today's new workers believe that work and social responsibility go hand in hand. A large majority believe that business has at least as much potential as government to solve society's problems.

A new economy is taking shape, that requires innovation in governance and regulation. Offering it the right conditions will be crucial to ensuring sustainability. If we want people-centered, inclusive and development-oriented information societies, where all have access to digital technologies, legal frameworks need to be put in place.

All stakeholders including governments, businesses, technical community, citizens, and consumers play a role in building trust and confidence in global networks. The global Internet must be allowed to further develop without obstacles.

— Ziad Salameh, Managing Director and General Manager, West Region, Cisco Middle East.

Hydrogen fuel cell cars face obstacle

DETROIT: Hydrogen fuel cell cars could one day challenge electric cars in the race for pollution-free roads - but only if more stations are built to fuel them. Honda, Toyota and Hyundai have leased a few hundred fuel cell vehicles over the past three years, and expect to lease well over 1,000 this year. But for now, those leases are limited to California, which is home to most of the 34 public hydrogen fueling stations in the US. Undaunted, automakers are investing heavily in the technology. General Motors recently supplied the US Army with a fuel cell pickup, and GM and Honda are collaborating on a fuel cell system due out by 2020. Hyundai will introduce a longer-range fuel cell SUV next year. "We've clearly left the science project stage and the technology is viable," said Charles Freese, who heads GM's fuel cell business.

Like pure electric cars, fuel cell cars run quietly and emission-free. But they have some big advantages. Fuel cell cars can be refueled as quickly as gasoline-powered cars. By contrast, it takes nine hours to fully recharge an all-electric Chevrolet Bolt using a 240-volt home charger. Fuel cells cars can also travel further between fill-ups.

But getting those fill-ups presents the biggest obstacle. Fueling stations cost up to $2 million to build, so companies have been reluctant to build them unless more fuel cell cars are on the road. But automakers don't want to build cars that consumers can't fuel.

The US Department of Energy lists just 34 public hydrogen fueling stations in the country; all but three are in California. By comparison, the US has 15,703 public electric charging stations, which can be installed for a fraction of the cost of hydrogen stations. There are also millions of garages where owners can plug their cars in overnight. As a result, US consumers bought nearly 80,000 electric cars last year, but just 1,082 fuel cell vehicles, according to WardsAuto. That's why automakers will keep hedging their bets and offer electric vehicles alongside hydrogen ones. Honda began leasing the 2017 Clarity fuel cell sedan earlier this year; about 100 are already on the road. At this week's New York Auto Show, the company also introduced electric and plug-in hybrid versions of the Clarity. The plug-in hybrid can go 42 miles in electric mode before a small gas engine kicks in, Honda says. The all-electric Clarity can go 111 miles on a charge. Both will go on sale later this year.

Diverse market

"We think going forward the powertrain market is going to be very diverse," said Steve Center, vice president of the environmental business development office at American Honda. Hyundai's Genesis luxury brand also blended technology with its GV80 SUV prototype, which was revealed in New York. The GV80 is a plug-in fuel cell vehicle, which means it would get power from stored electricity as well as hydrogen. It's not clear when - or if - the GV80 will go on sale.

Fuel cell cars create electricity to power the battery and motor by mixing hydrogen and oxygen in the specially treated plates that combine to form the fuel cell stack.The technology isn't new. GM introduced the first fuel cell vehicle, the Electrovan, in 1966. It only seated two; the back of the van housed large steel tanks of hydrogen and oxygen. It went about 150 miles between refuelings, and its hydrogen tank exploded on at least one occasion. —AP

Amazon, Flipkart battle in India for e-commerce's 'last frontier'

India market size seen between $50bn and $120bn by 2020

NEW DELHI: With 100 million new internet users every year, Amazon is betting big on India, but a major new investment in homegrown rival Flipkart means the battle to dominate the fast-growing e-commerce market is set to heat up.

Flipkart announced this week that top international companies including Microsoft, eBay and China's Tencent had pledged investments totalling $1.4 billion, among the largest sums ever raised by an Indian start-up. The 10-year-old e-commerce company needs all the help it can get to compete with Amazon after the Seattle-based giant made India's 1.25 billion inhabitants a global strategic priority, earmarking $5 billion in investment funds.

"They need to have a substantial amount of cash in order to fight in the market with Amazon," said Jaideep Mehta, South Asia director at the International Data Corporation. Every three seconds, an Indian connects to the internet for the first time, according to Google. One in three Indians currently uses the internet, but the number is forecast to swell by 300 million by 2020, mainly due to growing smartphone use. McKinsey analyst Ashish Tuteja said 70 percent of online sales in India were done on a smartphone.

"It's very much a mobile-first market," he said. Projections for the size of the market by 2020 differ wildly, ranging from $50 billion to $120 billion.

But all agree that it will be worth considerably more than the current $15 billion, thanks to an expanding middle class and rapidly growing internet use. Amazon only opened its doors in India in 2013, but quickly overtook local start-up Snapdeal to become the second-biggest player.

This file photo taken on October 30, 2015 shows Chief Operating Officer and Co-Founder of Flipkart Binny Bansal speaking during the launch of Flipkart's Largest Fulfillment Centre on the outskirts of Hyderabad. —AFP

E-retailers in India typically adopt a "marketplace" structure, acting as platforms that connect buyers and sellers rather than stocking their own products. Amazon marketed its services aggressively, touring markets around the country with its "chai carts" to sell the idea of e-commerce to small traders over a cup of tea. Under another initiative dubbed "Feet-on-Street", an Amazon employee would be sent to photograph their products and help them to sign up online.

Alibaba ambush

Flipkart, Amazon and Snapdeal are now engaged in a price war, with each Indian festival an occasion for aggressive cuts. "At some point, they will have to make money," said Mehta- something experts say will necessitate consolidation of the sector.

That process has already begun, with Flipkart absorbing two rival portals, Myntra and Jabong. According to Indian media, a deal for Flipkart to buy Snapdeal is next. India also represents a chance for a rematch after Amazon lost out to Alibaba in China. Although currently more focused on Southeast Asia, billionaire Jack Ma's group has made no secret of its interest in India.

The Chinese giant has taken a stake in Indian online payments company Paytm

and has ambitions to develop as an online sales platform in its own right. For Amazon, India is the "last big frontier", said Mehta. "Amazon is a 100-billion-dollars-plus retailer. To keep driving growth, they need to keep leadership positions in large markets outside the US," he said. "They will continue to be very committed." —AFP

Financial firms hit with million dollar losses per Cybersecurity Incident

DUBAI: The costs associated with cyberattacks on the financial sector are rising as organizations face increasingly sophisticated threats. New research by Kaspersky Lab and B2B International reveals the scale and impact of attacks, with financial firms facing losses of nearly a million dollars ($926,000) on average for each cybersecurity incident they face.

Veniamin Levtsov

The staggering figure is revealed as part of Financial Institutions Security Risks 2016, a survey of finance professionals highlighting the main security challenges for banks and financial institutions around the world and the financial costs of specific cyberattacks. The most-costly type of incident for financial organizations are threats that exploit vulnerabilities in point-of-sale (POS) systems, in which an organization typically loses $2,086,000. Attacks on mobile devices are the second most costly ($1,641,000), followed by targeted attacks ($1,305,000).

Compliance is the main driver for increasing investment in IT security in banks and financial institutions. However, the study found that 63% of organizations believe that being compliant is not enough to be secure. Another significant reason for spending more on security is growing infrastructure complexity. For example, an average financial firm adopts virtual desktop infrastructure (VDI) and manages approximately 10,000 end user devices with roughly a half of them being mobile smartphones and tablets.

Insufficient internal expertise, top management directives and business expansion are also among the top reasons for a budget increase. In general, investing more in security appears to be inevitable to a clear majority of financial firms as 83 percent of them expect an increase in their IT security budgets.

Veniamin Levtsov, Vice President, Enterprise Business at Kaspersky Lab commented: "Given the substantial monetary losses from cyberattacks, it is not surprising that financial organizations are looking to increase spending on security. We believe successful security strategies for financial organizations lie in a more balanced approach to allocating resources - not just spending on compliance, but also investing more in protection from advanced targeted attacks, paying more attention to personal security awareness and getting better insights on the industry-specific threats." The study shows that financial firms seek to address security challenges by getting more threat intelligence and conducting security audits, with 73 percent considering this measure effective. However, organizations from the financial sector are less inclined to use third-party security services with only 53 percent of those surveyed perceiving it as an effective approach.

Kaspersky Lab's experts recommend five key considerations for security strategies adopted by financial organizations in 2017.

1. Beware of the targeted attacks
   Targeted attacks on financial organizations are likely to be conducted through using third parties, or contractors. These companies can often have weaker or no protection at all and can be used as an entry point for malware or a phishing attempt.
2. Do not underestimate less sophisticated threats
   Fraudsters can strike at mass and benefit from the scale using simplest tools. Social engineering might contribute to 75 percent of fraudulent incidents while only 17 percent could be caused by malware.
3. Do not pick compliance over protection
   Budgets are usually allocated in favor of compliance, but strengthening security and introducing new protection technologies requires a more balanced approach to the allocation of resources.
4. Do regular penetration testing:
   Unseen vulnerabilities are real nevertheless. With implementation of sophisticated detection tools and penetration testing, vulnerabilities and incidents will emerge. Ensure your eyes are open to all weaknesses and threats - before it's too late.
5. Pay attention to insider threats
   Employees can be exploited by cybercriminals - or decide to become ones. Effective security strategies should go beyond perimeter protection to include techniques that can detect suspicious activity within organizations.

To learn more about financial organizations' losses from security incidents and effective security strategies to fight them, along with some other findings from the report by Kaspersky Lab, read the blogpost.

i Kaspersky Lab, together with B2B International, conducted the worldwide survey of more than 800 representatives from financial organizations in 15 countries. Respondents, including 492 senior IT and business professionals from banks, were asked about their perception of cybersecurity matters and how they protect themselves from threats.

'Skinny bundles' step up challenge to US Big Cable

WASHINGTON: For years, US cable operators got rich by offering fat "bundles" of hundreds of channels and raising prices regularly for television consumers. Now the "skinny bundle" is disrupting that model with internet-delivered packages offering live and on-demand programs.

Google's YouTube TV is the latest to enter this market with its bundle of around 40 channels for $35 monthly, challenging slim packages from Sony's PlayStation Vue, Dish Network's Sling TV and AT&T's DirecTV Now. More entrants are expected including one from streaming service Hulu.

These services offer easy interfaces like those of on-demand services such as Netflix and Amazon Prime, let viewers digitally store programs in the internet "cloud," and toss in a limited selection of live channels to sate news and sports or other interests. Skinny offerings are aimed at young viewers and "cord cutters" loath to pay $100 or more to be force-fed hundreds of channels in hefty bundles and accustomed to streaming shows they want, when they desire.

A Parks Associates survey last month found 20 percent of American consumers dissatisfied with their pay TV service, leaving the market ripe for change.

Analyst Glenn Hower at Parks said the market is in flux, with some consumers taking advantage of the easy sign-up for skinny packages, even though some cancel just as quickly.

In addition to lower prices, he said, "you don't have to worry about sending out a technician, you don't have to worry about getting the equipment back." BTIG Research analyst Richard Greenfield, in a research note titled "the big bundle is doomed," says he expects skinny bundles to eat away at the established pay-TV providers.

Established media companies are focusing too hard on "protecting their legacy business model" instead of giving consumers the flexibility they want, Greenfield wrote this month.

Leichtman Research Group found that the top US cable companies lost 277,000 subscribers in 2016, while internet-delivered services like Sling TV and DirecTV Now added about 845,000.

These shifts could lead to a huge upheaval in the television ecosystem, allowing more choices and lower costs for consumers in many cases, while leaving smaller, independent cable channels out in the cold. The skinny bundles "have made inroads in the past year," said Leichtman Research president Bruce Leichtman.

Digital platforms rise

Forrester Research analyst James McQuivey said Google's entry into the business is significant because "for the first time, the broadcasters are letting a powerful digital platform have the keys to its treasure room: live, first-run TV shows."

He noted that major tech firms like Amazon, Apple, Facebook, Google, and Microsoft "have tried to cozy up to TV for many years now, and all of them have been rebuffed" until now. "The digital platforms are indeed taking over the world, this time with permission from their former adversaries," he said in a blog post. While many consumers use on-demand options like Amazon and Netflix, they often keep cable or satellite subscriptions for live sports and local news. But live channels will make streaming options more attractive.

At the same time, popular channels such as HBO and sports programmer ESPN have been offering standalone subscriptions to allow consumers to watch without a bundle from cable or satellite.

But independent television analyst Alan Wolk argues that the major pay TV firms remain in good shape despite these challenges. Some like AT&T already have a "skinny" offering, and others such as Comcast and Verizon are expected to enter the market to give consumers a choice.

Wolk said consumers don't appear to be flocking to skinny bundles because "they pay 30 percent less dollars but get 70 percent less content."

He added that "a lot of people think they want to cut back but when you ask them which channels they want to eliminate they have trouble cutting back to the bare minimum."

Striking back

Wolk noted that the large pay TV operators have an advantage because they offer broadband internet, and in some cases are the dominant provider in a region. This allows them to offer incentives which bundle internet and television. The large operators can also squeeze out rivals by using data caps or other means to favor their own streaming service, and will not likely face regulatory impediments from doing so in the current political environment, he said. Operators are also keeping customers with "TV everywhere" which allows subscribers to watch the same content on mobile devices or while traveling, he noted.

One impact from the shift to streaming is that providers will know more about customer habits, to be able to deliver advertising targeted to each user. That's positive for marketing, but could be a privacy worry as tech firms build up detailed profiles on consumers.

Google in particular can refine its ad model by using data on viewing habits, analysts note.

With streaming, Wolk said, Google and others "get a ton of data about users and what they are up to, and they can cross-reference that with your browsing habits." —AFP

Small Iowa school district embraces big changes for collaboration

ELDON: Just miles from the simple farm house that inspired Grant Wood's "American Gothic," a small school district has outfitted itself with state-of-the-art technology and a forward-thinking curriculum.

Visitors to the rural, 800-student Cardinal Community School District don't expect its high-tech classroom or lounge area, Superintendent Joel Pedersen said.

"They oftentimes think it looks like a college classroom or like a Fortune 500 (company's) room," Pedersen said. " ... They're really shocked when they walk in - how nice and inviting it is and how much technology is infused in our buildings."

The "21st Century Classroom" in the district's shared middle and high school building has whiteboard walls and desktops for students to scribble on, wheeled desks and chairs they can rearrange and multiple TVs that can display class assignments. The space, paid for with funds from the state's penny sales tax, is meant to promote student collaboration, administrators said.

More and more of those types of spaces - known to educators as "student-centered" classrooms - are being built in Iowa schools. Laura Wood, a 21st Century Learning specialist for the area education agencies that oversee much of southern Iowa, has helped advocate for those spaces.

"That is the shift - when teachers and educators talk about 'the shift,' it's that student-centered model," Wood said. "I think it's just a matter of time before we move from small pockets of things happening to (having them) scaled and happening all over."

Similar student-centered spaces have popped up in Cedar Rapids, Waukee, Mount Pleasant and Hamburg, she said. "I think if we promote student agency," Wood said, "then I think you're going to see more of those open floor plans happening."

While students can collaborate in traditional classrooms, 21st century spaces treat group work as the default, said Cindy Green, Cardinal's director of curriculum and instruction. —AP