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MALAYSIA'S DIGITAL ECONOMY BLUEPRINT

Ministry of Economic Affairs
Commentary by Tok Pa

Malaysia has embarked on its digitalisation journey since 1996 with the introduction of the Multimedia Super Corridor. Through this initiative, the country has recorded some success stories, such as attracting domestic and foreign information and communication technology (ICT) companies to operate in specific economic zones.

Doubling down on our strengths alone will no longer work in the future, as the Fourth Industrial Revolution (4IR) and the rapid advancement of disruptive technologies including digital technology have shown the potential to significantly transform the economic landscape around the world. The COVID-19 pandemic has accelerated the wave of change in driving the rakyat, business and the government to adapt to digitalisation for their daily needs.

Malaysia will lose out in the increasingly competitive global economy if we are not ready for change. We need to embrace digitalisation which improves standard of living and prosperity. Research has shown that Artificial Intelligence (AI) technology can increase Gross Domestic Product (GDP) by up to 26% in the next decade. Digitalisation will also help achieve sustainable growth in the long term.

Current digitalisation efforts have shown much promise for our future. Malaysia's Information and Communication Technology Malaysia's Information and Communication Technology (ICT) sector has amassed RM289 billion, accounting for 19.1% of GDP in 2019. The COVID-19 pandemic has accelerated the growth of the digital economy as well as encouraging the rakyat, traditional businesses as well as the government to shift online in meeting their daily needs.

> **MALAYSIA WILL LOSE OUT IN THE INCREASINGLY COMPETITIVE GLOBAL ECONOMY IF WE ARE NOT READY FOR CHANGE.**

The Government understands too well the treasure trove of opportunities that lay in embracing the digital economy towards its long-term goals as outlined in Wawasan Kemakmuran Bersama 2030 (WKB 2030). Launched in October 2019, WKB 2030 outlined a commitment to make Malaysia a nation that achieves sustainable growth along with fair and equitable distribution, across income groups, ethnicities, regions, and supply chains.

Nonetheless, the Government also recognises the potential pitfalls if digital economy efforts are not leveraged with the rakyat in mind. Hence, the Government introduces MyDIGITAL as a national initiative that symbolises the Government's aspiration to transform Malaysia into a digitally-enabled and technology-driven high income nation, and a regional lead in digital economy.

To realise the aspirations of MyDIGITAL, the Malaysia Digital Economy Blueprint is formulated to set the direction, outline the strategies, initiatives and targets to build the foundation to drive the growth of digital economy, including bridging the digital divide. The Blueprint will also ensure that the country is ready to embrace digital technology by seizing existing opportunities. The National Digital Economy and 4IR Council forms the highest governance to decide policies, implement and monitor the digital economy strategies and initiatives. This outcome-driven governance structure adopts a whole-of-nation approach which involves partnerships between the rakyat, as well as the public and private sectors to realise the aspirations of MyDIGITAL.

It is my hope that MyDIGITAL prepares Malaysia to embrace the rapid digitalisation that has and will continue to provide reasonable standard of living for all the rakyat.

UPWARDS AND ONWARDS

The transition towards a more digitised nation has proven to be a necessity that needs to be accelerated in lieu of the current situation. With businesses requiring digitalising and the arrival of new digital solutions, policies will need to reflect the change in landscape as well.

In Malaysia, the introduction of JENDELA and MyDIGITAL are among the latest initiatives taken to reflect the urgency we see in the changing times. These initiatives are also considered to be concrete foundations for the country's digital economy growth.

The events of 2020 have also undoubtedly emphasised the importance of accessibility in connectivity. During the first lockdown that took place in March 2020, telcos saw increased demand for quality internet connectivity.

In order to tackle this, the government rolled out JENDELA with Phase 1 already in motion. This phase will see telco players shut down 3G, expand the current 4G nationwide footprint and get their network to be future ready for 5G.

Additionally, with businesses requiring the best quality now in order to successfully utilise their digital solutions will be able to benefit from these initiatives. And to reflect these solutions and their success, this supplement will be featuring different solutions by different players.

Readers will be given an insight to what it takes to digitalise their business with Celcom's committed solutions. Ranging from various initiatives. Celcom Chief Executive Officer Idham Nawawi speaks to us on why there is no better time than now to make that digital leap.

He also shares with us on the journey the telco has undertaken and how it plans on contributing to Malaysia digital journey in years to come.

On the other hand, we have a list of contributors who have penned their thoughts on a variety of topics, ranging from providing the best education for the future workforce to creating the right smart cities for Malaysia.

> "KEY SECTORS SUCH AS FINANCIAL AND BUSINESS SERVICES, TECHNOLOGY, MEDIA AND TELECOMMUNICATION, AND MANUFACTURING WILL ALREADY BE FACING A LABOUR SHORTAGE BY 2030

Key sectors such as financial and business services, technology, media and telecommunication, and manufacturing will already be facing a labour shortage by 2030. The unrealised revenues for these three sectors alone are estimated at more than RM7 billion. Lack of globally competitive talent will also hurt our firms. They will be left vulnerable in an ultra-globalised, hyper-competitive world, says Shahnaz Al-Sadat, Chairperson of LeapEd Services.

She also highlights that unlike traditional education approaches, Education 3.0 promotes 21st century skills and prepare them for the jobs of tomorrow. Education 3.0 brings together creativity, outcomes, critical thinking, big data, personalisation and much more which could turn children into builders instead of consumers, and even job creators instead of job seekers.

Sharing their thoughts on the building blocks for Malaysian businesses' digital transformation, TM One unveils the challenges faced by many and how as a corporate they would be able to help these businesses to overcome and flourish even bigger.

Increased digitalisation also exposes businesses to online threats. TM One further points out that cybersecurity remains an ongoing challenge to digital ecosystems, exacerbated by the COVID-19 pandemic as more people are working remotely.

This is proven as cyberattacks have also become more sophisticated with the emergence of automation and artificial intelligence (AI). Enterprises, often lacking adequate security skills and mitigation procedures, are suffering massive financial and reputational losses.

With thoughts and initiative from the private sector, you will find the Prime Minister's Economic Department pen down a few words to share their aspirations and ambition for the country's digital transition.

BEYOND TELECOMMUNICATION AND DRIVING THE NATION'S DIGITAL AGENDA

The Malaysia Digital Economy Blueprint, better known as MyDigital – an ambitious manifesto announced by the Prime Minister on 19 February 2021, articulated clearly that for a country to transition towards becoming a successful digital nation, it requires close collaboration of players from both the private and public sector.

During the launch of the Blueprint, Prime Minister Tan Sri Muhyiddin Yassin declared that MyDigital will empower Malaysians from the northern tip of Peninsular to Sabah and Sarawak with the aim to improve every aspect of their lives. Digitalisation is seen as the driver that will increase digital literacy, create high-income jobs, improve banking and finance, provide better digital access to education and medical services to areas where in the past would have been impossible to penetrate.

The new and comprehensive approach is designed to anchor the country's digital economy by 2030 and will be executed via three phases and 6 key strategic thrusts, close to 50 initiatives and very clear objectives and targets.

A critical factor to ensure these objectives are achieved will be connectivity. To realise its digital ambitions, Malaysia will need a robust and reliable infrastructure - a digital network capable of catering for the exponential increase in demand that will accompany higher rates of digitalisation. A technically advanced end-to-end connectivity that is secure and scalable is a pre-requisite. To meet these criteria of a robust ecosystem, operators providing the infrastructure must have vast experience in communications, sound knowledge in working with the public sector and private corporations, and a proven track record. This also includes the leadership from government, participation from industry players, support from technology providers and adoption from consumers.

This is where Celcom Axiata Berhad fits the bill. As the nation's first mobile network with the widest coverage, Celcom has been an active and leading partner in the country's digital journey throughout the company's 33-year history. Apart from being first to launch many new technologies in Malaysia, it operates the largest cellular network in the country covering many of the most rural and remote areas. It is therefore well primed to help fulfil the aspirations of MyDigital.

During an exclusive interview with BusinessToday for this special supplement on Digital Malaysia 2030, we spoke to Celcom's Chief Executive Officer, Idham Nawawi on the role the telecommunication group will play in the nation's drive towards digitalisation.

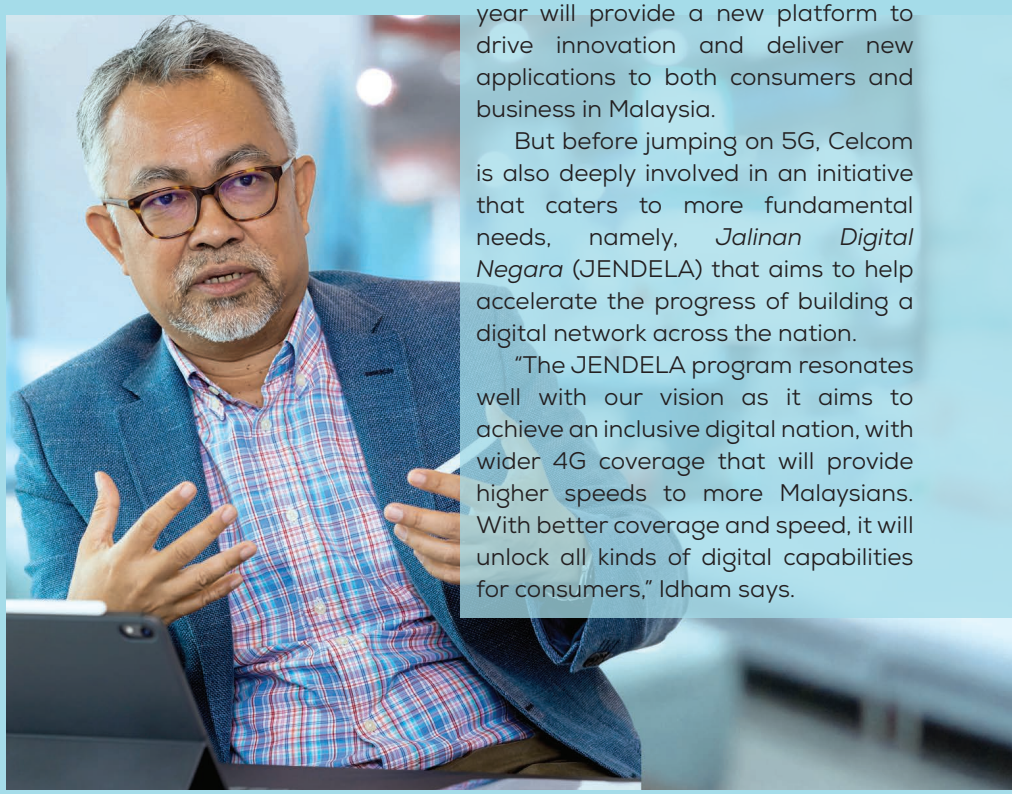
Inspiring Digitalisation amongst Malaysians

Celcom is well known for its network and has been the backbone of the nation's development for connectivity. But Idham does not want to stop there. In his eyes, it is a natural extension to this mission and to become one of the backbones for the nation's digital ecosystem. Idham wants Celcom to be one of the nation's "Most Inspiring Digital Organisation'.

"A few years back, we were all about providing connectivity but now the discussions have evolved to Celcom becoming a digital company. This is timely, because as Malaysia moves quickly towards becoming a digital nation, things that once appeared simple have since become complex. This requires us to keep up with the changes," Idham added.

"Our purpose of advancing societies is clear, as we are committed towards making sure everyone is connected and no one is left behind. This is part of our Celcom Compass," he shares. This, he says, was his vision towards adapting to the digital changes taking place and is well aligned with the government's aspirations for a digital Malaysia.

> "THE DIGITAL INITIATIVES AND THE BLUEPRINT WILL PAVE WAY FOR MALAYSIA TO TRANSFORM INTO A HIGH-INCOME COUNTRY AND BE A REGIONAL FRONTRUNNER



The Celcom Compass was one of the first things Idham introduced after being appointed CEO: Celcom's renewed Purpose, Vision and Values in a simple graphical representation that is evident everywhere in Celcom's offices and in these days of remote working, as screensavers of employees' computers. It outlines the values by which the company and its employees should operate.

Idham further highlights that Celcom's contribution to the MyDigital Blueprint will be an important one especially with 5G and IR4.0 already on the near horizon. On this front, Celcom is prepared – it has conducted more than 40 pilots of use cases, allowing the company to better learn about how the technology can be applied to create solutions that can be applied in real world scenarios. The objective moving forward is to collaborate with various industries to offer not just connectivity but develop and implement digital applications, services and solutions for partners.

He is optimistic that the introduction of 5G by the end of this year will provide a new platform to drive innovation and deliver new applications to both consumers and business in Malaysia.

But before jumping on 5G, Celcom is also deeply involved in an initiative that caters to more fundamental needs, namely, *Jalinan Digital Negara* (JENDELA) that aims to help accelerate the progress of building a digital network across the nation.

"The JENDELA program resonates well with our vision as it aims to achieve an inclusive digital nation, with wider 4G coverage that will provide higher speeds to more Malaysians. With better coverage and speed, it will unlock all kinds of digital capabilities for consumers," Idham says.

Tackling Rising Issues

"Everything is digital these days, our daily chores are slowly becoming digital too. From getting your lunch to ordering your next piece of clothing, everything can be done through your smartphone wherever you are."

"The pandemic has spotlighted the need for businesses to adopt digital practices. With the restrictions in movement and physical contact, only those who adopt digital tools and new ways of working can meaningfully operate."

Nonetheless, Idham acknowledges that adoption of digital initiatives could prove to be a challenge because businesses are reluctant to incur the cost of integrating digital applications into their operations.

However, Idham also believes that this can also prove to be an opportunity for the industry to come up with innovative and affordable options, convincing local businesses to digitise with little or no downside. One example is Celcom's innovative one-stop SME digital kit, Celcom Business Suite™, that offers SMEs the flexibility and affordability to transform and optimise their business operations with simplicity. The suite comes with multiple digital solutions for SME businesses such as cloud-based e-POS, electronic payment, digital marketing solutions, Microsoft Office365 and additional productivity tools such as tablets.

"We need them (local businesses) to see that in the long-term, digitalisation will position them on a stronger footing, make their businesses more resilient and there won't be any geographical barriers in their way," he highlights.

Idham also points out that more digitalisation gives rise to the issue of security and privacy. "In this area, Celcom has always been working towards strengthening its core systems to ensure the protection of our customers' data and privacy," he says.

Celcom in collaboration with Axiata, currently houses a strong in-house cybersecurity team along with an offshore global center to oversee cybersecurity measures. The telco is also building a similar center within Celcom's HQ building, "@celcom" in Petaling Jaya, to increase its capability in all security measures.

"We are working hand-in-hand with other players such as Huawei and Cybersecurity Malaysia. At this juncture, every device connected to Celcom can become vulnerable so it's important we amplify our efforts to strengthen cybersecurity measures and cover a wider scope of issues and threats," Idham says.

In March this year, Cybersecurity Malaysia, Celcom and Huawei Technologies Malaysia signed a Memorandum Of Understanding (MoU) to establish a 5G Cyber Security Test Lab to manage, mitigate and reduce threats related to 5G security, an initiative that was previously announced by Saifuddin Abdullah, Malaysia's Minister of Communications and Multimedia, during the Mobile World Congress 2021 in Shanghai, China.

"The collaboration signifies our commitment and vigilance to further develop and innovate in the area of cybersecurity, especially in preparation of the introduction of 5G technology," Idham says.

The Digital Journey To Come

Commenting on Malaysia's digital journey, Idham says the country has come a long way with over 90 percent of its society connected in one way or another. The high usage of data and Internet services in the country shows that Malaysians have access to some of the most affordable devices and packages.

"Today, internet connectivity is very affordable. Our monthly unlimited prepaid plans cost only RM35, and that costs no more than 3 cups of 'Latte' these days," Idham shared during a light moment.

"Celcom's vision to become the 'Most Inspiring Digital Organisation' is also perfectly aligned with Malaysia's digital vision and we shouldn't think of ourselves as just a mobile operator anymore. We have been tirelessly working to adopt new mindsets, evolve our culture, take on new digital skillsets and adopt new digital technologies to become an all-inclusive digital enabler.

"Ten years from now, I envision Celcom as a brand that does amazing things for our customers. We will move beyond the network infrastructure segment and into the application space where we can touch and improve the everyday lives of Malaysians," he concludes.

BUILDING A MORE CONNECTED AND SAFER MALAYSIA

Since 2020, the world has been combatting the unprecedented pandemic which brought about radical changes in the daily lives of millions of people globally. Amongst its most evident aftermaths is the acceleration of digitalisation, especially in the developing economies in Southeast Asia like Malaysia.

Yeo Siang Tiong, General Manager for Southeast Asia at Kaspersky said that it is timely that Malaysia Cybersecurity Strategy 2020-2024 was announced in October last year, which aims to improve the cybersecurity management and capability of the country.

"The fast-forwarded digital revolution puts forward cybersecurity as a necessity for countries across the globe including Malaysia, and it is a right step forward that the government and private organisations here are taking steps to beef up the country's cyberdefenses. Since Movement Control Order 1.0 was announced in 2020, we have observed high level of internet reliance with work and daily activities shifted online. For instance, the government itself has increased their work-from-home staff to 80%," says Yeo.

Aside from remote working and distance learning, Malaysians also embraced digital payment technology and cashless transactions more during the pandemic. This trend, however, did not go unnoticed for cybercriminals.

Kaspersky Mobile Malware Evolution 2020 report noted that malicious actors online constantly monitor the situation in the world, collecting the most interesting topics for potential victims and then use these to infect for their gains.

On the move forward, "We laud the speed of MyDIGITAL, which will ensure that payments from all government services will be made on a cashless basis by 2022. It is a welcome development which requires users to be more aware and equip to protect their assets against cybercriminals. After blocking a total of 103,573 mobile malware attempts in Malaysia in 2020, parallel with the increased usage of e-payment platforms, it is clear that these actors will always have several tactics on their sleeves to compromise us. To combat them, we need to work together as a community to build a more connected and also better secured cybersphere," Yeo adds.

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Yeo Siang Tiong
General Manager for Southeast Asia at Kaspersky

kaspersky

FACILITATING MALAYSIA'S JOURNEY TOWARDS BECOMING A DIGITAL NATION

Malaysia has made significant strides over the past decade to set the stage to become a truly digital economy. The recently announced MyDigital initiative provides a roadmap to take the country on an accelerated digitization drive.

Studies have shown that over 70 percent of Malaysians are in support of the transition towards becoming a cashless society. With the rise of e-commerce and digital payment options in Malaysia, this comes as no surprise.

The COVID-19 pandemic has also accelerated Government efforts to push for faster adoption of the digital economy which in return also relies on factors such as the rise of the cashless society beyond urban centers.

"We have seen the rate of digital adoption from both consumers and small business increase rapidly over the past 18 months, driven by the lockdowns. We remain optimistic that these changes are not temporary but representing a lasting shift in the behavioral patterns of our customers. says Sheyantha Abeykoon, Chief Executive Officer of Boost.

To underline the increasing acceptance of digital payments, the homegrown financial services company's e-wallet business experienced very strong growth last year as its user base increased tremendously by close to 75 percent between the Jan-Dec period versus the 45 percent growth from the same period in 2019. Similarly, its merchant base grew by over 65 percent in 2020.

Becoming A Digital Nation

Successfully building a digital nation firstly requires a conducive ecosystem that promotes and acts as a catalyst to innovation.

With these crucial building blocks in place, Sheyantha said that tech, digital and fintech companies like Boost have an important role in participating and developing products as well as services on top of it that benefit businesses and consumers.

Boost, which has been leading the charge in this digital space over the past four years, recently announced its rebranding exercise. The re-launched Boost brand now unifies all of Axiata Digital's fintech services that span payment services, artificial intelligence (AI) -based alternative lending, digital insurance, cross border content services and merchant solutions.

Since its inception in 2017, the homegrown company has been a pivotal player and enabler in driving digital transformation in the country. It started as a digital payments provider with the country's first major e-wallet and is rapidly evolving into a broader digital financial services provider today with micro merchants and SMEs (MSMEs) being a key focus segment.

This track record caught Putrajaya's attention and last year Boost was selected by the Government as a partner for three national initiatives – ePENJANA, Shop Malaysia Online and MSME E-Commerce Campaign – under the PENJANA Economic Recovery Plan.

"Consumer incentive offered through ePENJANA and Shop Malaysia Online contributed to a significant growth in digital payments usage with Boost. The e-wallet's total Gross Transaction Value (GTV) in 2020 more than doubled compared to 2019 with the two Government initiatives playing a significant role in achieving this milestone.

Meanwhile, through the MSME E-Commerce Campaign, Boost helped over 15,000 cash-based micro and small merchants easily shift their businesses online. One key inclusion in that campaign was the Boost Business Payment Link,

a then newly developed contactless payments facility that allowed merchants to collect payment for online orders. It was developed at the start of the pandemic in response to struggles faced by MSMEs not allowed to physically open their businesses and facing almost certain collapse.

"We observed that our merchants who leveraged on the Boost Business Payment Link saw at least a 60 percent increase in transaction value per transaction compared to offline payments through physical QR codes," commented Sheyantha, pointing out that this demonstrated the enormous potential for MSMEs to grow and expand in a digital world.

"The PENJANA initiatives were timely to support the dual objective of granting relief, on top of encouraging digital payment adoption as a means to mitigate the harsh impact of the pandemic. Following up on that success, this year, we were again selected and currently participating in the Government's on-going Go-eCommerce and Shop Malaysia Online campaigns where we hope to further facilitate increased affordability and accessibility to digital services with low barriers to entry amongst users and merchants across all digital maturity levels," he said.

In further driving the cashless agenda, a couple of months ago, the Government also introduced the eBelia initiative targeting youth adoption of digital payments. Boost was once more chosen as an official e-wallet for the disbursement of eBelia credits expected to benefit some two million eligible Malaysians.

A 2030 Malaysia

COVID-19 has accelerated the need for faster digital adoption especially amongst MSMEs in sectors that remain underpenetrated.

Today, Boost serves over 350,000 merchants, with at least half comprising of purely cash-based micro and small merchants who have no credit history to qualify for financing from traditional financial institutions.

"Leveraging data, AI and end-to-end digital platforms, we are able to use transaction data from our Boost merchants to build them a credit history," Sheyantha explained.

Between August last year and June this year, Boost Credit (formerly known as Aspirasi) has experienced 12 times growth in loan applications and up to 22 times higher disbursements compared to the preceding period.

Boost also applied in conjunction with RHB for a Digital Banking license and if successful hopes to extend banking services to its base of consumers and merchants This provides Boost with a platform to build a full range of services for the MSMEs and consumers it services from payment, merchant solutions, cross border services, financing and protection products and banking services.

"BOOST WAS ONCE MORE CHOSEN AS AN OFFICIAL E-WALLET FOR THE DISBURSEMENT OF EBELIA CREDITS EXPECTED TO BENEFIT SOME TWO MILLION ELIGIBLE MALAYSIANS.

"Malaysia has nearly one million MSMEs. To-date, we have assisted about 175,000 merchants transform digitally. We see plenty of opportunity to further enhance our offerings to this segment that will allow them to operate on a digital-first basis with the services that we are building today," Sheyantha said.

The Boost CEO is optimistic that by 2030, there will be an inclusive Malaysian digital economy where everyone will have equal and fair access to a formal financial system and more powerful tools at their disposal.

"We are driving change and spearheading the industry forward so that the financial system will be more of a digital enabler it should be than it is today. We're confident that what we're building today will be a key asset to uplift people out of the B40 segment, promote wealth generation and unleash the full potential of the MSME base in this country," Sheyantha concluded.

SECRETS TO A WINNING DIGITAL TRANSFORMATION STRATEGY

More than ever, there is an urgent need for companies to ensure that they not only carry out digital transformation (DX) but that the DX delivers solid benefits.

DX was already important and relevant for organisations before, but with change and disruptions accelerating in the marketplace, DX is now an imperative.

For many firms in the near future, a successful DX will determine whether they thrive or topple.

Unfortunately, here's a sobering fact: 70% of DX initiatives fail.

There are many reasons for this, but one of the most common mistakes we see is thinking that a shiny, new digital solution will solve all legacy problems.

"There is no one single digital solution that is going to fundamentally change an organisation," says Max Ferrin, Transformation Director, Renoir Consulting. "Instead, ask: How does the DX initiative link back to your company's vision, mission, goals or strategies? What is the business need that is to be addressed?"

1. Ensure that processes are efficient

Implementing digital transformation on inefficient or broken processes is like giving a broken-down car a fresh coat of paint and hoping that will make it run better.

Yet that is what many companies end up doing, sometimes adapting a tool to conform to the company's broken processes!

It's important to ensure that processes and systems are in good shape before implementing DX, otherwise the problems will still exist, and often informal workarounds will arise, leading to additional inefficiencies.

2. Be clear about the benefits from the digital transformation

Naturally, companies run a DX initiative because they want to achieve a goal, be it to increase income, decrease costs, streamline the organisation's resources or expand future capabilities.

However, a surprising number of companies do not clearly define the outcomes they'd like to reap from their DX initiatives. As a result, they have a difficult time tracking progress and gauging success.

When DX outcomes are clear, relevant measures can be put in place to provide true transparency on the completion of the program and the benefits achieved.

"Unfortunately, this is almost always one of the key things not done when it comes to digital transformation," says Ferrin.

3. Leverage digital tools

Once the "house" is in order, it is time to enhance processes by leveraging digital solutions that will enable effective online collaboration and deliver the right outcomes.

4. Onboard the workforce correctly

Frequently we see companies spending millions on top-notch digital solutions, be it data analytics, artificial intelligence or automation, only to discover that the organisation is not prepared to use it or even understand it.

"One of the biggest problems we see is that companies do not know how to onboard people to the new tool. They don't spend enough time on that," says Ferrin.

"A lot of companies believe that change management involves sending an email on the day the system goes live with the message, 'Hey, we have this new system and it's live. Use it!'," says Ferrin.

There are a lot of activities that need to happen before that email is sent out. In fact, before even the DX initiative planning is done.

For example, one of the most important steps is to define the need for change to the workforce to get buy-in and ownership from them.

"Articulate the expected outcomes. What are the benefits of implementing the initiative? Then, create an engagement plan to ensure that everyone that needs to be aware is aware," says Ferrin.

While it's true that a digital system can improve the way people work, it is the people – the workforce that is expected to use the digital tool – that ensure a successful implementation. Human intelligence is still necessary in digital process design and usage. Human beings are required to spot flaws, identify root causes and eliminate problems.

Organisations need to take a clear, hard look at their workforce. Do they have the necessary buy-in and resources to adopt the new solution?

> One of the most important steps is to define the need for change to the workforce to get buy-in and ownership from them.

"Are you going to scale down your digital transformation because the people that you have are not aligned or capable? Or are you going to try to change the people – requiring participation, upskilling, possibly new talent and external help, so that a robust DX programme will be delivered?"

If these factors are ignored, companies may end up with expensive digital solutions that are used improperly or inconsistently throughout the organisation, with any anticipated ROI left unrealised.

IMPLEMENTING SUCCESSFUL TRANSFORMATION

There's not one single success factor when it comes to DX.

"Digital transformation for one company can mean something completely different in another. There's no one-size-solution that fits all – that's not how it works in reality," says Ferrin.

This is because every company is different. They have different needs, goals, challenges, and advantages.

Successful DX lies not in implementing the latest, trendy digital solution but to ensure that the DX links to verifiable benefits that will align with the company's vision, needs and goals.

For over 25 years, Renoir Consulting has been the trusted business transformation partner for companies globally. We have partnered with clients from diverse industries in more than 50 countries to co-create bespoke solutions that produce real outcomes and sustainable change. Our boutique approach means that our clients receive the highest level of professionalism, expertise and leadership ownership. Learn more about us at https://www.renoirgroup.com or on LinkedIn (Renoir Consulting).

STRENGTHENING MALAYSIA AS THE DIGITAL INVESTMENT HUB OF ASEAN

The Malaysian Government has recognised the opportunities that lie in becoming a successful digital nation, with recent initiatives of the Malaysia Digital Economy Blueprint (MyDIGITAL) being a testament to that. Digital technologies hold the potential to promote inclusion by enabling existing industry players serve the underserved.

At the same time, the path towards creating a more digitalised economy will also open the country to new players seeking to build a presence here and leverage on the digital growth Malaysia is set to experience.

To reliase this vision, for 25 years, the Malaysian Government has entrusted MDEC to take the lead in developing the nation's Digital Economy, transforming from the original startup nation to one of the leading digital countries in ASEAN.

MDEC has played a key role in advancing the country's digital ecosystem and the agency is now committed to ensuring Malaysia will be able to attract the right digital investments in.

Having recently announced a 5-year plan to attract digital investment, MDEC's 'Digital Investments Future5 (DIF5) Strategy' focuses on five key thrusts aimed at attracting these investments in line with MyDIGITAL.

The five-year initiative, which will run from 2021 to 2025 following the 12th Malaysia Plan, aims to secure high quality digital investments as it seeks to unlock new drivers of growth in the digital economy.

Cumulatively, MDEC has brought in RM345 billion worth of investments via MSC Malaysia since 1996, creating 184,396 jobs, and housing 40 of the Forbes100 companies in Malaysia.

The DIF5 strategy targets to attract RM50 billion investments in the digital economy and will focus on five key industry sectors, five focus technologies, five emerging technologies and digital global business services.

It is set to attract 50 Fortune500 tech companies to land and expand in Malaysia Establishment of assist to develop five Unicorns and creation of 50,000 high-value jobs in the MSC.

Additionally, five industry sectors that have been identified as national priority sectors under the strategic plan include AgTech, HealthTech, Islamic Digital Economy and FinTech, CleanTech and EduTech.

> "THE STRATEGIC PLAN INCLUDE AGTECH, HEALTHTECH, ISLAMIC DIGITAL ECONOMY AND FINTECH, CLEANTECH AND EDUTECH

MDEC is optimistic that the digitalisation of these industries will have a high impact on investment, jobs, and contribution to GDP and more importantly, the size and potential of these sectors would also draw large global companies that can benefit the country via international partnerships.

The Corporation will also increase efforts to grow the Digital Global Business Services, encouraging the use of robotic process automation and data analytics as well as Knowledge Engineering.

Strengthening Digital Investment

The formation of the Digital Investment Office (DIO), a digital collaborative platform between the Malaysian Investment Development Authority (MIDA) and MDEC is one initiative that looks to strengthen the coordination among all Investment Promotion Agencies in promoting and attracting new investments into the country.

Endorsed by the National Council of Digital Economy and Fourth Industrial Revolution (MED4IR), this collaborative effort between MIDA and MDEC will cater to the rapidly growing digital economy in line with the goals of MyDIGITAL and the National Investment Aspirations.

In the long term, these initiatives will play a vital role in positioning the country as the preferred Digital Hub and firmly establish it as the Heart of Digital ASEAN.

Malaysia Tech Month 2021

Further reinforcing MDEC's vision is The Malaysia Tech Month 2021 (MTM'21) which has returned for the second year with the aim to place Malaysia as the Heart of Digital ASEAN. The event was launched on July 29 consisting a monthlong curation of electrifying digital and technology keynotes,

workshops, discussion panels and business-matching sessions. The virtual month-long curation of digital and technology content has lined up both internationally and locally renowned speakers which included the likes of Professor Dr Michio Kaku, the oretical physicist, co-creator of Apple Siri, Dr Luc Julia, co-founder of Carsome and Malaysia's first Unicorn, Eric Cheng as well as Chief Executive Officer of Air Asia Group, Tony Fernandes.

The anchor event will roll out content in four themed weeks encapsulating MDEC's NADI Digital pillars, New Skills, Adoption, Disruptors and Investments.

Through MTM'21, investors will have the perfect platform to explore business opportunities, gain valuable market access and access digital talents within the local tech industry as well to seek more effective collaborations to improve innovations.

"This year marks an important milestone for MDEC as we celebrate our 25th anniversary. In many ways, MTM'21 is the celebration of the progress and achievements we've made since we were founded in 1996 to realise the dream of the Multimedia Super Corridor. There's no better way for us to celebrate our Silver Jubilee than to do what we do best – driving innovation and empowering the people towards digital transformation.

At MDEC, we believe that the Future is Now, and we are already living in a world that is Digital by Default. The Digital Economy is not just crucial to the economic development of Malaysia, but to also bring us closer to becoming a nation that is deeply integrated in technology, providing equitable digital opportunities to the people, businesses and investors.

The event also gives us the opportunity to broaden our minds and engage in conversations that ultimately drives us towards enabling a nation that is deeply integrated with technology and equitable digital opportunities to the people and businesses - Malaysia 5.0," says Surina Shukri, CEO of MDEC.

ASSURING CONSISTENT AND QUALITY DIGITAL EXPERIENCE NATIONWIDE

> CELCOM HAS ALSO REAFFIRMED ITS COMMITMENT TO ENSURE THEIR USERS WILL BE ABLE TO EXPERIENCE THE BEST DIGITAL EXPERIENCE WITH A CAPABLE 4G DEVICE.

Connectivity has always played an important role in every Malaysian's life, and as the years go by, it has only become a necessity from buying food online to ordering the next batch of groceries via an app.

To keep up with growing demands and changing times, telecommunication players have also evolved and adapted along the way. With all 3G networks in Malaysia shutting down by end December 2021, Celcom Axiata Berhad for instance is well on its way to extending the 4G network to provide wider coverage and improved performance.

The telco is continuing its momentum in accelerating its network investments to further enhance and optimise Network and Service Experience throughout 2021. By committing capital expenditures of approximately RM1 billion for FY21, Celcom targets to increase network capacity, reduce network traffic congestion and improve 4G coverage nationwide.

The 3G network sunset will be implemented in three phases, and Celcom is in progress as per the plan. The telco is currently in Phase 2, whereby the 3G network will be gradually and carefully thinned, and finally shutdown by end of 2021.

Celcom will expand their 4G network to fill any coverage gap and further enable more users to enjoy 4G services such as Voice-Over LTE (VoLTE).

The telco is also in full support of the implementation of the nation's digital aspiration, *Jalinan Digital Negara* (JENDELA) and are doing their best towards ensuring that 4G network is available for all Malaysians in the country.

Ensuring No Disruptions

Celcom has also ensured that the experience of their customers will not be compromised throughout this exercise.

The telco is working with the Malaysian Communications and Multimedia Commission (MCMC) to spread the awareness by communicating the 3G sunset efforts to their subscribers through multiple platforms such as the Celcom Life application, websites, emails, letters to corporate clients and via SMS.

Pilot tests have been conducted at selected areas and business customers have also been offered various digital tools to upscale their business digitally.

These digital tools include cloud-based e-POS, electronic payment, digital marketing solutions and additional productivity tools such as tablets and Microsoft Office365.

Celcom has also reaffirmed its commitment to ensure their users will be able to experience the best digital experience with a capable 4G device. As part of the government's initiative, the Jaringan Prihatin package offers Malaysians a variety of 4G device packages that are affordable for consumers to switch their 3G devices to a 4G smartphone

For businesses, Celcom is actively reaching out to their customers to facilitate with the migration to 4G. In addition to this, the telco is also offering device subsidies and providing dedicated Helpdesk support to further smoothen the migration to 4G.

Up To RM360 Subsidies with Celcom

Celcom's Jaringan Prihatin programme offers an extra RM60 rebate (up to RM360 rebate) for prepaid and postpaid customers until 31st August 2021. This is in addition to the Government's Bantuan Prihatin Rakyat programme that offers subsidies of RM300 for eligible households and RM180 for eligible individuals.

Supported by Celcom's widest network coverage, the programme enables Malaysians from all walks to life, to be digitally connected with a brand new 4G device and unlimited Internet access.

Eligible Celcom postpaid and prepaid customers with Jaringan Prihatin monthly internet passes or plans will also be able to enjoy free 2GB Internet for one hour daily via the Celcom Life app.

Challenges Ahead

The telco also highlighted several challenges in carrying out the transition which includes harsh terrains and challenging geographical landscape for infrastructures to be deployed in remote areas. This also requires the collaboration of industry players and the support from the government and state governments.

In addition to that, consumers will also need to be educated on the benefits of 4G such as VoLTE and digital services, and the need to adopt newer devices that can support 4G instead of relying on 3G alone.

Regardless, the telco is more committed than ever in putting all efforts to ensure the 3G network sunset initiative will be successful and customers will be able to continue using their services on available networks with minimal impact.

Celcom's Jaringan Prihatin programme offers an extra RM60 rebate (up to RM360 rebate) for prepaid and postpaid customers until 31st August 2021.

HOW UNIVERSITIES CAN ACCELERATE OUR TRANSITION TO THE DIGITAL ECONOMY

By Prof Graeme Wilkinson

The world is now riding an express train called the fourth industrial revolution to a destination where almost all aspects of business and society will be fundamentally digital. This applies to work, study, leisure and to the way in which we all communicate with each other. We are already partly there, and the Covid pandemic has propelled us even faster along this journey. This technological revolution gives great opportunities for economic development for a country like Malaysia and will potentially enhance the lives of all citizens, but it will also pose some new challenges for everyone. Universities, as engines of social change and economic development, are critical in catalyzing and supporting the changes that are taking place and, most importantly, in enabling the nation to maximize its outcomes in transitioning to a digital economy.

Whether we like it or not, we are in a global competition to exploit the potential of the digital economy and all countries are playing in this game. To date, one nation in particular, the United States, has dominated. They have produced the largest online retailer, the most popular social media platforms, the most comprehensive search engines, and arguably the best smart phones. Their billionaire platform owners get richer by the day. Other countries are all eager to get bigger slices of the lucrative pie with China catching up very fast. We now need to put ourselves in a place where we can compete well with other nations and begin to dominate in some aspect of the global digital economy. It is in this regard that universities become extremely important.

"Domination" is a key word here. The internet means any new digital business can rapidly become global but competitors can spring up from anywhere and with enough investment, creativity, and product innovation can soon achieve regional or global dominance. We have to ensure that our products and services use leading-edge technologies and are well-adapted to market needs. We also need to develop technologies that go beyond the state-of-the-art so that we can gain a global advantage. Furthermore, we need to ensure that we prepare our society well for the shifts in lifestyle that will accompany the growing digital economy. Universities have a central role, indeed a major responsibility, to make sure this can all happen and that the nation can reap major rewards in years to come.

So, what must universities do? Firstly, universities have to research new technologies and create the technical specialists who can help the nation push new technologies forward and exploit them well in everyday businesses. We need to train the vital software engineers, electronics engineers, cybersecurity specialists, artificial intelligence programmers and big data analysts that will drive forward the underpinning technologies and their adoption. We also need to train business managers and entrepreneurs to embrace all digital possibilities and to take their businesses global in the process.

But universities also need to create thinkers who can have original ideas and, for example, understand human psychology. Facebook did not come about solely because of technological advances. It also came about because its founder recognized how humans like to communicate and share information about their lives.

> We also have to teach students some new skills, namely flexibility and resilience as well as "life management".

The system became so successful because technologies (advanced smart phones, massive data servers, widespread internet easy-to-use to use human interfaces) could enhance personal social interaction and, at the same time, gather commercially valuable information globally that could assist marketeers and generate enormous advertising revenues – altogether this was a brilliant combination.

It is no secret that the United States has a highly educated workforce and that its leading universities are particularly good at cultivating creativity and cross-disciplinary thinking that give rise to exciting innovations. The liberal arts tradition is partly responsible for this. We need the same and that is why universities must not simply train students to become technological specialists, but must also train others in fields such as psychology and the creative arts and ensure that students can engage with each other across multiple disciplines. At the same time, we have to give students the right professional skills and abilities such as problem-solving and critical analysis.

But we also have to teach students some new skills, namely flexibility and resilience as well as "life management". It is predicted that the digital economy is likely to eliminate around fifty per cent of current jobs in the next twenty years. New ones will certainly be created, but overall there will be fewer long-term full-time jobs available as AI and robotics takeover. Today's students and new graduates are going out into a world where they will have to switch career several times with re-training, and maybe get used to fallow periods without work or just temporary fragmentary work in so-called portfolio careers. Thus, they will need to become much more sophisticated in managing

their financial well-being in the more uncertain times ahead. We have to train the next generation of adults to exist comfortably in a changed world with more uncertainty and insecurity, as well as more leisure time, than ever before as a result of this digital revolution. Universities therefore have to prepare students for this new reality at the end of the fourth industrial revolution through a more holistic form of education and support them continually along their journey of life. The task ahead for our universities is enormous, but I'm confident they are up for the challenge and will accelerate the nation towards a fully digital economy and a more comfortable and prosperous existence for all citizens.

Professor Dr. Graeme Wilkinson is the Vice-Chancellor of Sunway University. He is a graduate of Imperial College London and holds a doctorate from Oxford University. His most recent book, "Managing Effectively in Academia", is a handbook of good practice for academic leaders and managers in higher education. He is a Fellow of the British Computer Society, a British Chartered IT Professional, and a Fellow of the Royal Society of Arts, London.

WHAT WILL OUR FUTURE WORKFORCE LOOK LIKE?

By Shahnaz Al-Sadat

For educators, parents and students, the past year has been heart-breaking.

Schools were first closed for four months in the first MCO, and then another three months, and now they have remained closed.

The Ministry of Education had, in April 2020 stated that close to 40% of students nationwide do not possess a digital device to enable them to learn at home. Then we read the heroic story of Veveonah who stayed in a tree for 24 hours to get internet access. Most of us in the field have heard stories of incredible struggles faced by our fellow educators – they must teach students, teach their own kids, and juggle home duties at the same time.

Those of us with children are familiar with complaints about not being able to socialise. Those of us with more than one child are used to seeing fights break out when "cabin fever" takes over. In the quiet of the night, we worry about the toll the pandemic is taking on our children's mental and emotional health and have become anxious for all the other students out there.

It was devastating when PDRM released data on teen suicides. Children between 15-18 years old made up 51 per cent of the total suicide cases from January 2019-May 2021. They have been out of school, missed out on learning and socialising, and perhaps they lived with an abuser, or parents who are stressed by job losses.

It's Everyone's Problem

What's happening isn't, however, just a social nightmare for educators, parents and children who are currently caught up in the immediate problems brought about by school closures.

The OECD and the World Bank have released alarming reports last year highlighting the domino effect of educational disruption, which paints a grim reality of what could be our collective future. The report states that the learning losses due to school closures "will have lasting economic impacts both on the affected students and on each nation unless they are effectively remediated."

The reports state that children currently in grades 1-12 affected by the closures might expect some 3 percent lower income over their entire lifetimes. It is inevitable that when school reopens, not all students will return. Dropout rates have increased by 83% at the primary level and 10.5% at the secondary level.

For nations, think tanks have estimated that learning losses could result in expected future loss in terms of GDP at RM 240 billion. Even prior to the pandemic, in a 2018 study, Korn Ferry had already reported that Malaysia will face a "severe talent shortage at highly skilled and mid-skilled levels with a deficit of close to 94,000 workers in 2030 and a total output of USD 6.1 billion."

For businesses, this represents a serious problem. Key sectors such as financial and business services, technology, media and telecommunication, and manufacturing will already be facing a labour shortage by 2030. The unrealised revenues for these three sectors alone are estimated at more than RM7 billion. Lack of globally competitive talent will also hurt our firms. They will be left vulnerable in an ultra-globalised, hyper-competitive world.

An Opportunity To Democratise Quality Education For All

Pre-pandemic, the Malaysian education system underpinned by the Malaysia Education Blueprint 2012-2030 was attempting to address the quality of education in preparing our talent to be future-ready.

With the pandemic situation, we can only expect that the work-in-progress would have been somewhat stalled. The worst would be that we would have regressed.

We have heard recently on the recruitment of 18,000 new teachers into the system. But we have not heard of any implemented strategy on ensuring the existing 400,000 teachers are equipped to deliver quality education during these times. There is a sense of urgency on the ground that is perhaps not yet addressed in terms of policy roll-out at the federal level.

The Malaysia Digital Blueprint launched in February this year, outlines a commitment to the digitalisation of education in its fourth thrust, "Building Agile and Competent Digital Talent". Digital tools have the power to democratise access to quality education and help us move towards Education 3.0.

There is a clear recognition within the Blueprint if we were to build our high-income inclusive nation, it is imperative that our children are trained to become digital talents. The Blueprint lays out ambitious plans to have all schools being able to implement digital learning and have better connectivity.

It could be a game-changer. With devices, connectivity, technology, and upskilled teachers, public schools could be transformed. From our 10-year experience in delivering the Trust Schools Programme where public schools are transformed to develop students holistically, mindset and culture change around student-centricity, creativity and innovation, collaboration and co-existence are also necessary to ensure the schools are nurturing students that will be relevant for the future.

If it goes as planned, the most vulnerable students will have access to the same opportunities previously only available to the advantaged. We will be able to see what LeapEd and our partners at the Ministry of Education and Yayasan AMIR, have fought for the past decade – to make public schools the choice schools for all, as they house 90% of Malaysian children.

Shaping Our Future Workforce Requires A Change In Strategy

While waiting for the government to roll-out tools, teacher upskilling and infrastructure, what can we do for our children now?

Perhaps the first step is to equip them with some foundation of "digital intelligence" as practical skill-sets to enable them to fully leverage on the digital world. This will drive our transition faster to Education 3.0 and will provide students with a foundation to explore self-directed learning and be more ready for the future.

The new concept of digital intelligence, or DQ was first introduced at the World Economic Forum in 2016 – and is defined as a set of social, emotional and cognitive abilities that allow individuals to meet challenges and adapt to the requirements of digital life, namely digital citizenship. It suggests that tools and infrastructure are not enough – we need to equip our children with the skills to deal with them.

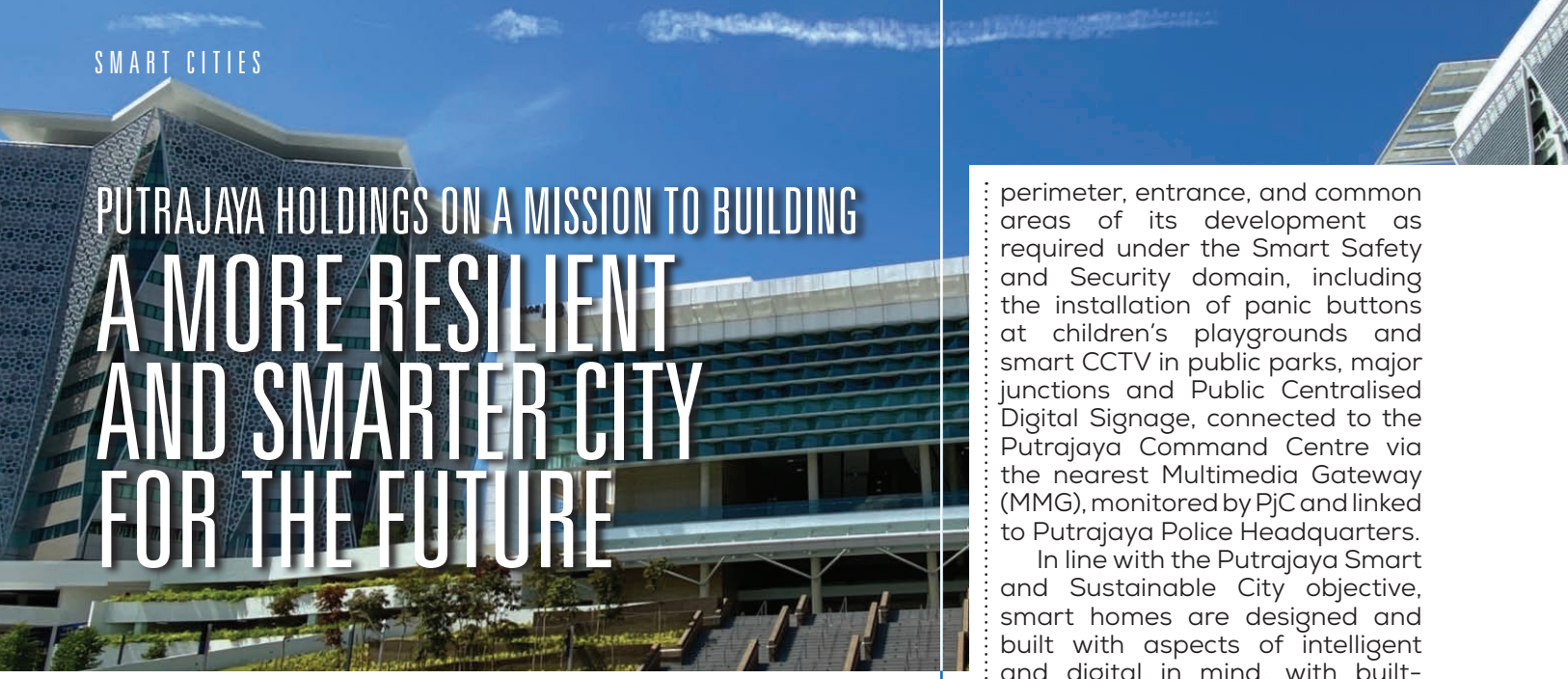
Holistic DQ (similar to IQ and EQ) development would prepare our children better for the actual workforce. The DQ coalition has grown into a 100+ member coalition that has reached over 600,000 children in more than 30 countries, across 15 different languages and is supported by the WEF, OECD, and Institute of Electrical and Electronics Engineers Standards Association (IEEE SA).

Unlike traditional education approaches, Education 3.0 promotes 21st century skills and prepares them for the jobs of tomorrow. Education 3.0 brings together creativity, outcomes, critical thinking, big data, personalisation and much more which could turn children into builders instead of consumers, and even job creators instead of job seekers.

To have hope for the future workforce, we must put more faith in the core ingredient – our children, the students. Alongside faith, we must also give them knowledge and strategies to flourish in the digital world. Parents, educators and businesses can play a role here by helping students to gain these critical skills.

Our opportunity to overcome the harm that COVID-19 has brought doesn't lie in the hands of the government alone. Now, more than ever, our collective future is at stake. And that future depends on all of us working together.

Shahnaz Al-Sadat is the Chairperson of LeapEd Services Sdn Bhd, an award-winning educational social enterprise. Previously the Chief Financial Officer and Executive Director of Strategic Human Capital Management at Khazanah Nasional Berhad, Shahnaz is currently advancing LeapEd's mission to make public schools the choice schools for all. LeapEd has worked closely with 164 national schools, impacting 166,000 students nationwide. For more information on LeapEd and on education transformation, please contact: enquiry@leapedservices.com or log on to https://www.leapedservices.com.



PUTRAJAYA HOLDINGS ON A MISSION TO BUILDING

A MORE RESILIENT AND SMARTER CITY FOR THE FUTURE

Putrajaya Holdings Sdn. Bhd. as a responsible and trusted developer understands that the modern city of Putrajaya demands intelligent combinations of data, people, and technology to create inclusive and sustainable solutions.

The Master Developer of Putrajaya is in full support of the Government's smart city initiative by minimising environmental impact from development activities as well as integrating the latest building technologies in its buildings.

Parcel F, 10 blocks of government office buildings with a gross floor area of 417,000 square meters and spread over a land area of 34 acres is setting a precedent for being the first government complex that fully implemented Building Information Modelling (BIM) processes and technologies from design to facilities management.

Parcel F is surrounded by Internet of Things (IoT) sensors building management systems, artificial intelligence (AI), and augmented reality making the buildings intelligent and green to meet space optimisation, energy efficiency, and connectivity.

"These have not only created a comfortable working environment but also improved energy efficiency and building maintenance, ultimately reducing costs," says Dato' Hashimah Hashim, Chief Executive Officer of Putrajaya Holdings Sdn. Bhd.

Parcel F has achieved the Green Building Index (GBI) Gold for Design Assessment along with majority of other Putrajaya Holdings' properties namely Menara PjH (Gold), Suasana PJH, Z10, and Heriot-Watt University.

In addition, the Gas District Cooling (Putrajaya) Sdn Bhd ("GDCP") which is a wholly-owned subsidiary of Putrajaya Holdings, owns, manages, and operates 5 co-generation / district cooling plants in Putrajaya with a total capacity of 100,000 refrigerant tonnes serving high profile development area. Its leading green technology and centralised supply to government and commercial buildings ensure reliability, efficiency, and sustainability.

GDCP is now embarking on digitalisation that delivers an intelligent, predictive, and near-real-time business across the entire value chain to provide new, actionable, role-based insights, with personalised delivery to maximise margins, enhance safety, and compliance.

Putrajaya Holdings applaud the project by the city council, Perbadanan Putrajaya (PjC) to install smart CCTV systems on the perimeter, entrance, and common areas of its development as required under the Smart Safety and Security domain, including the installation of panic buttons at children's playgrounds and smart CCTV in public parks, major junctions and Public Centralised Digital Signage, connected to the Putrajaya Command Centre via the nearest Multimedia Gateway (MMG), monitored by PjC and linked to Putrajaya Police Headquarters.

In line with the Putrajaya Smart and Sustainable City objective, smart homes are designed and built with aspects of intelligent and digital in mind, with built-in fibre optic infrastructure for internet connectivity and 5G ready, enabling work from home, a study from home, business from home opportunities for families and entrepreneurs enabling integration with smart appliances and sensors.

Putrajaya Holdings will ensure that properties within the city are designed for flexibility to adapt to user needs and equipped with the right technology to ensure the health, wellbeing, and safety of their customers.

The company is a firm believer that smart city principles will ensure that the country's digital roadmap is implemented in a holistic, structured, progressive, and sustainable way to meet its multi-pronged objectives, taking into consideration opportunities in technological advancement, global and local market trends and demands.

CHALLENGES AND OPPORTUNITIES IN SMART CITIES

By: Faizal Ali (CEO & Co Founder - Vectolabs) & Ikhwan Ayub (COO & Co Founder - Vectolabs)

Why Smart Cities?

I'm in the smart city business. I'm excited about the promises of smart cities. But when I bring up the "Smart City" among friends and family, their eyes sort of glaze over, signalling their eagerness for me to drop the subject. There is an apathetic mood of the public on the subject of "Smart Cities". This is unfortunate because the citizens are the intended beneficiary. This may indicate either

a) City officials have not done a great job at educating the public about how it will affect them
b) The public believes that smart city projects fall short of their grandiose promises

There are many reasons to implement smart cities. Half of all the people in ASEAN live in urban areas and an additional 70 million people are forecasted to live in ASEAN cities by 2025. Urbanisation is a crucial driver of economic growth. No country has yet achieved middle-income status without a significant shift of its population into cities. (ASEAN Secretariat, 2018) . In order for the country to be competitive in the future, our cities must be successful.

At the same time, our cities must be able to respond proactively to the negative effects of rapid urbanisation. Our recent struggle with the COVID-19 pandemic highlighted and increased urgency for us to modernise how we manage our cities. Our pandemic management needs to be data-driven. Our policy makers lack granular data and take the "abundance of caution" approach with blanket MCOs with heavy economic costs.

We must adapt our cities to the new world that has different demands. Our traffic and mobility infrastructures require modernisation to address the expected rapid increase in population, we don't have enough protection for our vulnerable road users (pedestrians, bicyclists, electric scooters), our drainage systems are overburdened making urban flooding a regular occurrence, causing loss of life and disrupting economic growth of the country.

Commerce should be easy in our cities; it should encourage investments and improve our city branding. We have increased demands in the quality-of-service cities provide and cities must adapt to the growth of population and increased expectations while managing the limited budget.

We must run our cities more efficiently.

Challenges

Despite the pressing and urgent needs for our cities to adopt smart technologies, many of our smart city projects fail to deliver as advertised. The problems include disconnected and ad hoc implementation, lobbied by special interest lobbying groups looking to make a quick buck. Our leaders are also prone to technology myopia and solutionism. City leaders fall into these traps when the goal is to implement a new technology instead of using technology to solve a city's problems.

I'm still looking for practical uses of 5G and wondering why our leaders are focused on ultra-low latency and greater bandwidth when what we actually need as a country is a more equitable and wider access to connectivity (as illustrated by Veveonah).

Lack of the right digital infrastructure

Most used cases of smart cities solutions do not need ultra-low latency or high bandwidth. It needs an IoT infrastructure that is optimised for low power (battery powered devices) and low connectivity cost per device. ARPU (Average Revenue Per User) driven telcos are hesitant to invest therefore municipalities must invest. IoT infrastructure is the modern equivalent of highways and bridges. It encourages commerce, improves city operational efficiency, and helps solve the "stranded data" problem.

Most of our cities' data are stuck in the vendor's database and not available for analysis. The expression "possession is nine-tenth of the law" is an expression that ownership is easier to maintain if one has possession of something, and difficult if one does not. Many of our cities' data are not in the possession of our officials.

Alphabet's urban innovation company Sidewalk Labs led one of the biggest smart city failures in the last decade with Sidewalk, Toronto. They forgot to include important stakeholders and didn't align with the residents and neighbourhood organisations.

How can we do better?

Our cities need to invest in digital infrastructure to enable smart services. The city of Southampton in England has successfully deployed its private LoRaWAN network to address its on-going air quality monitoring project.

We need to re-visit well-intentioned but obsolete policies and processes that hamper adoption of new technology. For example, most of our facility management contracting is paid by the number of labour rather than performance, discouraging adoption of technology that increases efficiency.

Success Stories

In the interest of transparency and in its efforts to end corruption and poverty, the "Barangays" (smallest unit in the government) in the Philippines allow citizens to monitor budgeting and planning. Perbadanan Putrajaya in partnership with Vectolabs Technologies Sdn Bhd is testing a vendor-agnostic and interoperable city IoT network that democratises the infrastructure and to encourage local innovation: See Putrajaya/Vectolabs Smart and Neutral LoRa network.

AMPLIFYING DIGITAL TRANSFORMATION FOR MALAYSIAN BUSINESSES

The Malaysian government has recently unveiled various initiatives designed to propel Malaysia into successful digital nationhood. These building blocks to drive digital transformation include Jalinan Digital Negara (JENDELA), the National 4IR Policy, and the establishment of Digital Nasional Berhad (DNB) to oversee the unfoldment of Malaysia Digital Economy Blueprint (MyDIGITAL).

While these initiatives confirm Malaysia's deep digital ambitions and impressive track record of formulating extensive frameworks for progress, the actual execution rate of most IT projects at the ground level generally often falls short some 70 per cent of the time.

According to IDC, 55 per cent of Malaysian organisations do not have an integrated enterprise-wide digital transformation strategy, and 91 per cent of Malaysian enterprises are either at stage one (resister) or two (explorer), of IDC's five (5) stage maturity curve.

IDC's *The Digital Transformation Blueprint: Software-Defined Enterprises in Asia Pacific* report highlights that many of the challenges faced by Malaysian companies can be broadly slotted into two (2) categories: access and complexity.

The lack of access to skills poses a major challenge, especially talent steeped in what IDC terms as third and fourth platform technologies and technology delivery models.

"Implementing digital transformation requires multi-domain expertise spanning business and technology, which is hard for enterprises to acquire. Emphasis is often placed on processes and not outcomes," the report stated.

Accelerating Digital Transformation Efforts

A dynamic platform of public-private collaboration is spurring and accelerating the building of Digital Malaysia.

IDC XSECURE Maturity Assessment – FREE!

Ten (10) lucky readers will be given an exclusive access to IDC's cybersecurity assessment tool. This is a self-assessment tool that provides a customised assessment report based on **your responses** as well as ideas and guidance on the next steps to build a secure business. Be rest assured that your responses are confidential.

Scan the QR code and get started on securing your digital transformation journey now!

The healthcare sector is pivoting to digital solutions to unlock the potential of digital healthcare. These efforts will embrace the enhanced patient experience, increase diagnostic accuracy, and improve patient care generally.

The public sector also wants to introduce changes at both policy-level and infrastructure levels through establishing a data-driven government, which can offer digitised citizen services, as well as upgrade network performance, and strengthened cloud and cybersecurity frameworks.

Preparing For Inevitable Threats

Increased digitalisation also exposes businesses to online threats. Cybersecurity remains an ongoing challenge to digital ecosystems, exacerbated by the COVID-19 pandemic as more people are working remotely.

A decentralised workforce poses fresh challenges to cybersecurity preparedness as remote desktop tools and Virtual Private Network (VPN) networks continue to be key targets for cybercriminals – adding to the complexity and difficulties faced by organisations trying to protect their data across remote endpoints.

To accentuate this approach, Malaysian enterprises must find a way to embed trust into how they do business to create a critical foundation to empower digital success.

Why TM ONE is the Ideal Partner

To facilitate and accelerate digital adoption, TM ONE, the enterprise and public sector arm of Telekom Malaysia Berhad (TM), is an established leader in effectively providing the necessary digital foundation for transformation across the spectrum - from digital connectivity to digital infrastructure and digital services – by leveraging on enterprise innovations, robotics, and automation as well as IoT.

It has innovated its offerings aligned to four (4) technology pillars that have been proven to strengthen digital transformation – Cloud services, cybersecurity, smart services, and professional services.

TM ONE Cloud α is empowering enterprises with a powerful, comprehensive, customised, end-to-end array of cloud solutions that deliver agility, innovation, and growth.

Complemented by the TM ONE cybersecurity solution, known as Cyber Defence Centre (CYDEC), TM ONE offers premier continuous, real-time, and predictive protection - spanning private and public networks, data, identity, and devices and infrastructure--to effectively and rapidly mitigate attacks on brand and reputation, online fraud, and mobile channels.

To ease and accelerate your transformation journey, TM ONE Professional services helps leaders create vision and roadmaps, enabling predictable, business-aligned digital transformation.

IR4.0 — REVOLUTIONARY TECHNOLOGIES NEED REVOLUTIONARY THINKING

By Graeme Wilkinson

The Fourth Industrial Revolution, or IR4.0, however we like to label it, is now well and truly upon us. Even though computer technology has been evolving rapidly for several decades, what causes people to consider that we are now in a new industrial revolution is the rapid pace of technological development across a number of fronts simultaneously and the synergies between them that have the potential to transform businesses, economies and societies.

We can include Artificial Intelligence (AI), autonomous robotics, the Internet of Things (IoT), advanced materials, cloud computing, and big data analytics among such technologies. All of these have the potential to transform the way businesses and ordinary citizens do things. It has of course already been happening and we can say that we are already several years into this revolution.

What we can see now is that some businesses and business sectors are vigorously and rapidly embracing the new technological possibilities whereas others are not. It may take time for everyone to fully appreciate the power and potential of new technologies and to adopt them effectively. One thing we can say for sure is that industries adopting IR4.0 technologies should be able to increase productivity and competitiveness whether it be through adoption of robotics to streamline production or warehousing activities, or to use big data analytics for logistics and strategic marketing.

Whilst adopting advanced robotics technology might present a big opportunity for a company in terms of efficiency, production quality and long-term cost reduction, there are a number of challenges associated with this. For example, there are significant up-front costs associated with bringing in such technology, there may be a lack of highly trained personnel to oversee it and there is the potential dislocation of the existing low skilled workforce which would have an impact on the local population. These are the kinds of challenges that companies as well as government have to address in order to make the most of IR4.0.

One of the keys to success is for businesses to integrate diverse new technologies and effectively re-design what their businesses do. Twenty years ago, business process re-engineering (BPRE) was very much in vogue. Today, with IR4.0 we can and must take this to a new level and undertake business model re-invention (BMRI). This takes great foresight and creativity but it is necessary for long-term business growth and sustainability.

Ride-hailing has become possible because of the ubiquity of location-aware smartphones, 4G and 5G communication networks, and digital mapping systems. Effectively ride-hailing firms re-invented the business model of personal transportation through recombinant innovation.

This kind of approach is how firms will guarantee their success into the future, not through simply making incremental efficiency gains through automation, but through re-invention of their businesses by combining and adapting the new and emerging technologies to their business sectors. We shall need more people to be educated to understand the technologies and to be able to see potential connections between them that can transform existing business activities in revolutionary ways. On the face of it, IR4.0 is about a revolution in technologies, but to make the most of it we need a revolution in business thinking.

Professor Dr. Graeme Wilkinson is the Vice-Chancellor of Sunway University. He is a Fellow of the British Computer Society and a British Chartered IT Professional. He formerly undertook research on space satellite imaging and artificial intelligence. He now writes on education and technology issues.

MYDIGITAL BLUEPRINT HOLDS POTENTIAL TO BE SUCCESSFUL BUT NEEDS AGILE AND TIMELY EXECUTION

In efforts to transition the country into a digital nation, Putrajaya earlier this year unveiled the MyDIGITAL initiative under the purview of the Malaysia Digital Economy Blueprint. The initiative is set to further enhance the digital economy and address the problem of the digital divide the country is facing.

Some of the things the Government hopes to achieve through the MyDIGITAL initiative includes 22.6 percent contribution to the GDP from the digital economy by 2025, creating 500,000 job opportunities in the digital economy, enable 5,000 startups to begin operating in the next five years, attract RM70 billion new investments in the digital sector and achieve 30 percent higher productivity in the economic sector by 2030.

However in order to make the initiative a success, industry leaders are calling the government to prioritise timely and agile executions.

Commenting on the blueprint, Aaron Sarma, General Partner at ScaleUp Malaysia says, ""In the context of our economic recovery post pandemic, our digital roadmap is our destiny. This plan falls short in meeting the fierce urgency of now. Rural communities need access to the internet, students need education, businesses need to be digitised – NOW."

"What I wish we saw was shorter execution timelines, more focus and a leaner council with more private sector involvement to ensure agile and effective execution in response to market needs," he added.

Everpeaks Chief Executive Officer and Founder, Joachim Sebastian hopes the Government will also address concerns on digital taxes that would be a hurdle to the aspirations of the blueprint as it reduces regional and global competitiveness of Malaysian-based digital solutions.

With the recent launch of Fulfilment by Everpeaks (FBE), a duty-free, ecommerce integrated warehousing and fulfilment solution that facilitates global manufacturer to consumer (M2C) commerce, Joachim believes Everpeaks will be a driving force in contributing to the country's lap into the industrial revolution to firmly establish the nation as a digital economic axis in the region.

On another note, Ashran Dato Ghazi, CEO of Dattel Asia Group said with policies and goals already in place, the next step would be ensuring a speedy, timely and agile execution.

"To me the blueprint is a consolidation paper to ensure that everyone has a single source of reference. The more important thing is how can the council [Digital Economy Council] play a role in making new bold things that will be executed fast," he highlighted.

MALAYSIA DIGITAL ECONOMY BLUEPRINT

VISION

To be a regional leader in the digital economy and achieve inclusive, responsible and sustainable socioeconomic development

OBJECTIVES

Encourage industry players to become creators, users and adopters of innovative business models under the digital economy

Harness human capital that is able to thrive in the digital economy

Nurture an integrated ecosystem that allows society to adopt digital economy

22 STRATEGIES

S1: Managing change for effective digital transition

S2: Leveraging digital technology to improve workflow efficiency and productivity

S3: Enhancing digital skill sets of civil servants

S4: Utilising data to improve overnment services

S5: Increasing scope and quality of online services for better user experience

S1: Facilitating digital adoption, access and effective use of digital technology across all firm sizes & digital maturity level

S2: Accelerating industry development by enhancing local participation

S3: Streamlining regulatory requirements to respond to digital economy and encourage innovative business models

S4: Developing digital industry cluster and driving entrepreneurial activity

S1: Utilising regulatory measures to expand infrastructure coverage

S2: Leveraging digitalisation to address legacy challenges

S3: Enhancing digital technology infrastructure capabilities

S1: Integrating digital skills into education at primary and secondary level

S2: Shifting focus of vocational and tertiary education from job-specific skills to competencies and adaptability

S3: Reskilling current workforce with the digital skills needed to stay relevant

S4: Ensuring that gig workers are protected and equipped with the right skills

S1: Increasing inclusivity of all Malaysians in digital activities

S2: Empowering special target groups in the society to participate in the digital economy through entrepreneurship

S1: Strengthening safety and ethics in digital activities and transactions

S2: Enhancing institutions commitment to personal data protection and privacy

S3: Improving cross-border data transfer

S4: Increasing cyber security uptake among businesses

48 NATIONAL INITIATIVES

28 SECTORAL INITIATIVES

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