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SEPTEMBER 2020



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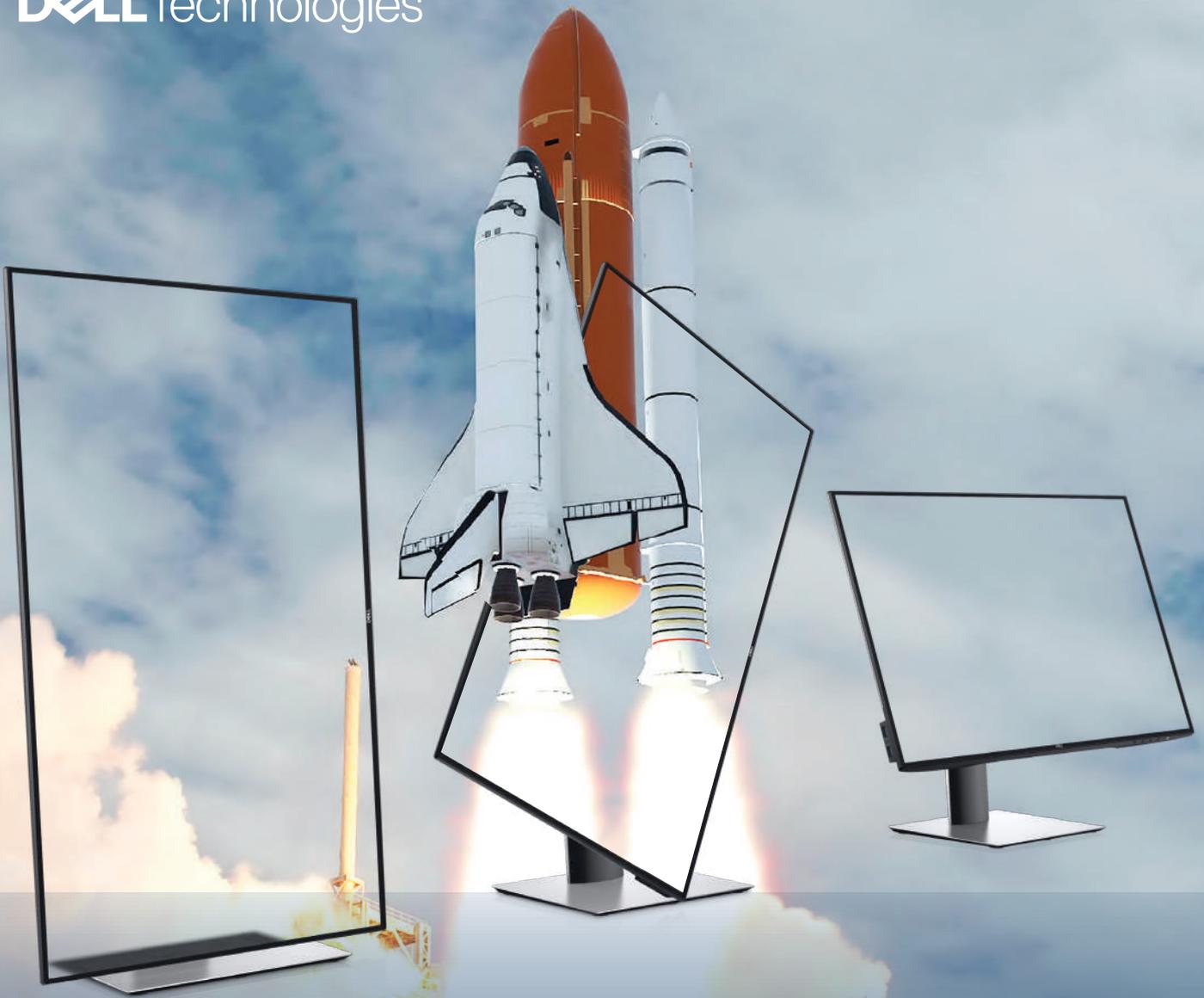


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## WHAT MAKES YOU A GREAT LEADER?

What makes you a leader? Executives spend thousands of dollars and organisations spend tens of thousands of dollars on this elusive subject. Hundreds and thousands of pages are devoted to this subject at every level of managerial education. And yet there are many shades of success in leadership, despite everyone

reading the same book and being coached by the same faculty. What gives here?

John Mattone, the world's leading executive coach throws light on this subject, in this issue of Business Transformation. He puts a spin on the traditional definition of leadership. Successful leaders are sensitive to their inner value systems, to their team members, to their family, to their ecosystem. Their success depends on their process of self-discovery. Mattone spends most of his time igniting the inner value system of global executives, the so-called soft attributes, to drive their outer and more visible forms of successful leadership, the hard attributes.

With digital transformation so much a part of the new normal, Mattone looks at the role play between innovation, technology, culture and leadership. What are the fundamental characteristics of an organisation whose survival depends on innovation? Is thinking big a strength of an innovative company. Why is it so difficult for an organisation to think differently and differentiate itself from the pack? If an organisation is heavily dependent on digital technologies, will it also by default become an innovative organisation. In this digital age, what are the characteristics of a leader of a digital organisation.

In another feature, we look at the positive spin offs around the pandemic. While the enormous stress from the pandemic surrounding healthcare workers and institutions has been dramatically captured, the pandemic has also forced positive changes around legacy healthcare practices and services.

Says, Dr K Hari Prasad, President of Apollo Group Hospitals, the first thing that is on everybody's mind is how to end this pandemic. There are three things which we need to happen to end this pandemic. The first is the successful development of a vaccine. The second is the development of antiviral drug treatment specific to Covid-19. And the third is the development of herd immunity, as a consequence of wide spread infections and clinical sub-infections.

And in our focused feature on augmented and mixed reality, Dmitry Doshaniy, NNTC; Greg Demchak, Bentley Systems; Saleh Al Nemer, HPE; Tabrez Shaikh, Proven Innovation Lab; Talal A G Shaikh, Heriot-Watt University; all contribute to share their insights on the subject. Breeze through the pages ahead, to deep dive into this month's top features.

Arun Shankar

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# HOW THE UAE'S DIGITALISATION HELPED DURING THE PANDEMIC

The pandemic has proved that in the UAE, digital transformation has become an integral component of daily life, says Ali Rao of Rao Holdings.



ALI RAO,  
CEO, Rao Holdings.

## KEY TAKEAWAYS

- The UAE had prioritised digital transformation almost two decades ago.
- With the recent easing of restrictions, digitalisation will continue to play a huge role in further protecting residents.
- With data collected from digital screening and interaction, the UAE has been able to monitor and contain the rapid spread of coronavirus.
- Digital transformation in the hygiene and sanitisation space is expected to grow.

The UAE had prioritised digital transformation almost two decades ago. It is not just a concept in this part of the world; it is a driver of the country's broader national economic development, diversification and transformation success path. The pandemic has proved it further that, here in the UAE, digital transformation has become an integral component of several aspects of daily life.

This can be clearly seen and experienced by those who live in the UAE through the deployment of sophisticated technology in their daily routine that they're highly accustomed to. Commonplace and widespread use of such technology can be seen through a variety of gear like speed cameras, drones and robots. With the help of data collected from digital screening and interaction, the UAE has been able to monitor and help contain the rapid spread of coronavirus tightly.

With the recent easing of restrictions, digitalisation will continue to play a huge role in further protecting residents, just like it did during the lockdown. Police personnel found great use in wearing smart helmets equipped with a thermal camera to be able to detect those infected with Covid-19, while maintaining a safe distance.

Devices were designed to spray the isopropyl alcohol-based sanitisers on people only as they passed by them by detecting movement, thereby reducing wastage. There were devices set up to dispense hand sanitisers as well so that people

could have more extensive access to them, and transmission of germs could be reduced at large.

Majority of these solutions were made possible because the basic foundation, infrastructure and understanding was already in place in the UAE. Countrywide, the UAE has digital transformation deeply rooted in the economic strategies. Both these effective and uplifting strategies have strong themes that are based around digitalisation and the transformation it has brought and can potentially bring to the lives of the people here.

A lot of the Emiratis probably do not realise how much technology they already use as part of their day-to-day activities. From applying for residency visas across its various stages to parking and speeding fines, a wide variety of documentation, application, and implementation is being done digitally. Think about the time when the UAE launched the eDirham, then look at how widely available this tool has become and how many payment channels it currently supports. Come to think of it, eDirham has now successfully replaced the traditional way in which the government used to collect fees for their services.

The UAE is now exiting and the post-pandemic life that people are headed towards. Digital transformation in the hygiene and sanitisation space is expected to grow as more and more people begin moving about, expecting or looking to take higher precautions than they ever did in their lives. ■

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# FOR THE REMOTE ECONOMY, IT'S ALL ABOUT TRUST

With the rise of distributed workforces, businesses will need to cultivate trusting relationships, explains VMware's Rasheed Al-Omari.



RASHEED AL-OMARI,  
Principal Business Solutions  
Strategist, SEMEA, VMware.

With the pivot towards online platforms, businesses will need to cultivate trusting relationships.

One fundamental change is the way in which workers, whether in an office, at home or in the field, will interact with one another. The majority of employees' social interactions at work typically occur in person.

With the rise of distributed workforces and pivot towards online platforms, businesses will need to cultivate trusting relationships between different industries, business units, and even functions

within the same departments so they continue to deliver, even as employees work remotely.

This trust is integral to business success. As new ways of working continue to develop, rebuilding and maintaining relationships between various working individuals and customers is essential for organisations to survive in today's complex and changing operating environment.

Despite fewer face to face meetings, businesses can still retain customer trust by adapting their approach to sales. For instance, some firms may start offering subscriptions with smaller monthly payments, which customers feel more comfortable agreeing to virtually instead of the historical big one-off deal.

In non-office-based industries, organisations are finding new ways to maintain customer trust. In education, teachers and lecturers around the world have pivoted to delivering lessons online in a variety of formats. Elsewhere, retailers are carefully considering how to maintain customer loyalty with digital-first communications as more consumers turn to online shopping. In law, electronic signature solutions offer a more streamlined approach to finalising contracts.

Digital trust relies on robust security. And for security to work across different work environments, it can only achieve this if it is built into the network and apps. Best of class digital workspace technologies offer safe, reliable, and consistent

access from any device, anywhere. Regardless of whether devices are company issued or employee owned, these solutions eliminate the complexities of endpoint management with security features built in, all critical for a distributed workforce.

Finally, employers must put their trust in employees to work remotely, recognising it's not about assigning specific working hours, but about using their time effectively to produce results.

With IT teams working remotely and under immense strain to keep organisations running, giving employees the flexibility to access the applications and devices they need to be productive as possible, in a way that doesn't compromise security, will be a decisive step in creating an environment of trust.

With a flexible digital workspace platform, organisations can be prepared for unexpected scenarios, delivering the applications they use, to any device they might be using, with user-simple security.

The leaders that get the digital strategy of creating a consumer simple, enterprise secure experience correct, will go a long way in building trust with their stakeholders and drive much needed resiliency. Now is not the time to damage this trust.

The current healthcare crisis may have been a shock to our traditional ways of working. But, as leaders everywhere learn to navigate this new world, it's clear that a recovery without trust will be built on precarious ground. ■

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# PUTTING CUSTOMERS AT THE HEART OF BUSINESS

Great customer experience means putting customers at the heart of your business and genuinely caring about what they think, says Paul Hardy at ServiceNow.



PAUL HARDY,  
Executive Strategist in the Chief  
Innovation Office, ServiceNow.

Only 25% of EMEA-based organisations can be classed as leaders in customer experience maturity.

Since the beginning of the Covid-19 pandemic, we've seen a shift in priorities for businesses of all sizes. One priority now is certainly to win and retain customers in order to survive and hopefully prosper in a challenging economic environment.

But it is usually only the very top priorities that ever get put into practice. In a survey of C-suite executives in EMEA that ServiceNow

conducted before the start of the pandemic, 36% said digitising and integrating customer service and management workflows was a top priority within their organisations.

If you remove all the jargon and theory, great customer experience is actually very simple. It means putting customers at the heart of your business and genuinely caring about what they think, what they need and what they want.

In practice, many organisations aren't there yet. Only 25% of EMEA-based organisations can be classed as leaders in customer experience maturity, according to the ServiceNow survey. We still have a long way to go in our region.

The first element underpinning great customer experiences is an ongoing process of gathering feedback from customers. We want to know all the time, not just when a ticket is opened or a phone call is made, what our customers are feeling and thinking, as well as how we're performing from their perspective.

Second, we've learned that having a single pane of glass customer portal helps drive superior, integrated customer experiences. Such an approach helps you gather always-on, real-time customer feedback, say via chatbots or quick surveys. It also helps integrate feedback into organisational processes so you can improve experiences continuously. This kind of portal breaks down departmental barriers.

The third element is collaborative

customer engagement. Typically, organisations that retain more customers and achieve higher satisfaction rates are those that take customers on a journey and involve them in their community.

The balance between the three traditional factors of change, people, processes, and technology, has changed significantly. While organisations looking to achieve a step-change in customer service management used to grapple with technology and processes, they now have mature technology and out-of-the-box processes and functionalities at their disposal.

New technology and processes can be implemented quickly and efficiently, with digital workflows automating common requests and providing personalised self-service options. With technology running invisibly in the background and repetitive tasks being automated, the people factor has become the key defining element of success.

Despite the highly unpredictable global circumstances, organisations are continuing to innovate to meet evolving customer needs, developing new products and services to adapt to the market and remain competitive.

Some industries may never be the same again, and others will have to transform at a faster rate than ever before. Regardless of the industry, organisations can maximise resilience and agility in challenging times by prioritising the creation of great customer experiences, underpinned by digital workflows. ■

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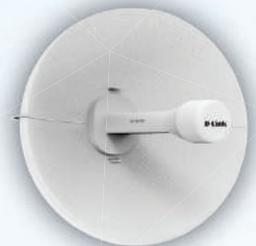
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# THE PANDEMIC'S DEVASTATING IMPACT ON OIL AND GAS SECTOR

Oil has been particularly hard hit due to the rapid cessation of mobility, explains Robert Minter at Aberdeen Standard Investments.



ROBERT MINTER,  
Investment Strategist, Aberdeen  
Standard Investments.

## KEY TAKEAWAYS

- Oil and physical commodities were particularly hard hit due to the long supply chain delivery time and the rapid cessation of mobility.
- The return of normalised oil demand is not in the foreseeable future.
- Currently we see less than 1 million bpd of jet fuel demand, down from 7 million normally.

For now, oil price expectations are for \$33-\$43 through year end.

The Covid-19 pandemic has had a devastating impact on the oil and gas sector across the globe and it is not going to get much better anytime soon. The widespread mandated activity halt of work due to the pandemic has disrupted virtually every industry in such a violent manner that companies within the industries could not react in time. Oil and physical commodities were particularly hard hit due to the long supply chain delivery time and the rapid cessation of mobility. The rapid 20+% plunge in oil demand was longer and of higher magnitude than most oil companies initially estimated.

The return of normalised oil demand is not in the foreseeable future. Current guidelines from the CDC in the US make it nearly impossible for workers to return to office buildings before there is a widespread vaccine.

If no one is in the office, there is no need for business travel, and business travel pays the majority of airline flight costs. Currently we see less than 1 million bpd of jet fuel demand, down from 7 million normally. That 6 million bpd hole in demand may return in 2021 at some point but is predicated on medical breakthroughs. British Airways parent company, IAG's CEO, William Walsh, confirmed this recently stating that it is misguided to

consider the travel crisis temporary.

This does not even account for the reduction in daily travel to work. In the US, 77% of workers drive to work, averaging 30 miles per day. Much of that demand has evaporated with work from home policies expected to last through year end. US Presidency candidate Joe Biden recently released his \$2 Trillion energy plan, largely designed to inspire the democratic base to come out and vote in November, regardless of how realistic the plan turns out to be.

We are as excited about the future of renewables as everyone else, however we temper it with experience. There has been no industry that has, as consistently, underperformed vs guidance as renewables over the last 40 years. Volkswagen, Tesla and others have designed compelling if expensive electric vehicles. Regardless of pricing it will take time to replace the 1.2 billion internal combustion engines currently operating globally.

The implication of a Biden presidency may well be to increase barriers to entry in the US oil and gas exploration market, raising prices. Time will tell, but for now our oil price expectations are for \$33-\$43 through year end. A widespread increase in lockdowns could pierce the floor of the range. Over the medium term the 10 million bpd of global producer cuts along with currently offline Libyan and Iran production amounts to 13 million bpd of potential supply increases as an overhead dampener on prices. ■

# HOW TO DRIVE A CULTURE OF INCLUSION AND DIVERSITY

Attracting and retaining a diverse pool of talent is a universal challenge for global businesses. AVEVA's Mark Cooper explains how this can be achieved.



MARK COOPER,  
Chief Human Resources Officer,  
AVEVA.

Diversity refers to demographic differences of a group, such as age, disability, gender, race, religion or sexual orientation. Inclusion is often defined as the extent to which everyone at work feels valued, supported and accepted, regardless of their background. It is about creating an environment where someone can be their genuine and best self at work. A combined effort of a diverse and inclusive workforce unlocks limitless possibilities for innovation.

Attracting and retaining a diverse pool of talent is a universal challenge for global businesses. So, creating a culture of inclusion is essential to allow everyone to feel they can be themselves and contribute their best work. This helps build a sense of purpose and provides a positive environment that is key to retaining staff.

There is no single solution to diversity and inclusion. Pooling knowledge is the optimum route to best practice. To realise ambitions for greater diversity and inclusion, HR professionals might consider taking action in the following areas:

## TALENT ACQUISITION

Set up KPIs measuring applicant demographics throughout the recruitment pipeline. This ensures that you are hitting some basic criteria with a more balanced selection of candidates. Consider obtaining support from third party industry peers who can offer recruitment best practices and access to job boards.

## TALENT DEVELOPMENT

While more women are rising to senior levels in their organisations, women and staff from minority backgrounds tend to progress to senior and leadership roles at lower rates than white men. Consider how best to build communities of professionals of diverse backgrounds in your sector. Consider sponsoring and attending networking events and participating in relevant conferences.

## LEARNING AND CULTURE

Maximise any opportunity to showcase more women and role models from diverse backgrounds in brand materials and social media. Set up an in-house global diversity and inclusion committee, which includes global employee representation

endorsed and supported by the leadership team.

## OUTREACH

Offer support to employees who become STEM Ambassadors and volunteer to run STEM outreach activities such as hosting work experience students to inspire them to consider a STEM career, and running science and coding clubs.

### Analytics and research

Develop internal diversity and inclusion dashboards to monitor progress. There is a wealth of industry best practice available. You may also consider to commission independent research of diversity and inclusion best practices.

## COMMUNICATIONS

Externally, consciously project a more diverse set of images and stories, while internally share stories and activities that support diversity and inclusion. Enshrine in Business Conduct Guidelines a written commitment to fostering an environment of diversity.

It is important to emphasise that a diversity and inclusion programme isn't about someone doing better at the expense of others, but rather that diversity and inclusion are about creating a culture of inclusion and respect for everyone. Setting up a framework to support diversity and inclusion is an important first stage. But it must be supported by actions from everybody to embed diversity and inclusion into organisational culture. ■

## 1.5M regional airline jobs threatened, says IATA report

The International Air Transport Association, IATA, released new data showing the impact on the Middle East aviation industry and on economies caused by the shutdown of air traffic due to the Covid-19 pandemic has deepened over recent weeks.

- Job losses in aviation and related industries could grow to 1.5 million. That is more than half of the region’s 2.4 million aviation-related employment and 300,000 more than the previous estimate.
- Full-year 2020 traffic is expected to plummet by 56% compared to 2019. Previous estimate was a fall of 51%.

- GDP supported by aviation in the region could fall by up to \$85 billion. Previous estimate was \$66 billion.

Restarting aviation in Middle East To minimise the impact on jobs and the broader Middle East economy, an accelerated recovery of air transport across the region is paramount. This can be achieved through government action in two priority areas:

Harmonising the restart of

Country	June pax estimate (millions)	August pax estimate (millions)	June jobs at risk	August Jobs at risk	April GDP (\$ billions)	August GDP (\$ billions)
Egypt	-13.7	-14	297,200	298,300	-3.3	-3.5
Jordan	-3.8	-4	36,660	39,600	-0.8	-1.2
Morocco	-11.6	-12.3	534,200	569,100	-4.9	-5.6
Qatar	-5.0	-5.3	72,700	78,400	-2.8	-3.1
KSA	-36.4	-39.2	299,200	322,500	-17.9	-20.1
UAE	-32.3	-34.8	392,900	421,200	-23.2	-25.9

The screenshot shows the IATA website interface. At the top left is the IATA logo. Below it are two main content blocks: 'COVID-19: resources for airlines and air transport professionals' and 'COVID-19: recommendations for passengers when traveling by air'. At the bottom of the screenshot is the IATA mission statement: 'Our mission is to represent, lead & serve the airline industry'.

air transport across the region. Some countries in the Middle East are opening their borders to regional and international air travel but inconsistent application of biosafety measures along with unnecessary entry requirements are deterring passengers and suppressing the resumption of air travel. Harmonising the restart of aviation across the region is critical for economic recovery.

Governments need to implement the common global set of air transport biosecurity measures, contained in the International Civil Aviation Organisation’s CART Take-off Guidelines.

Continued financial and regulatory support. In particular, direct financial aid such as wage subsidies and loans, an extension of the waiver to the 80 to 20 slot rule, and relief from taxes and charges.

## Big changes for 62% UAE respondents during pandemic, Kearney

A survey commissioned by Kearney Middle East revealed that 62% of respondents in the UAE have experienced a significant or complete change in their lives during the pandemic. The survey of more than 1,000 UAE residents explored personal wellbeing, economic and professional behaviours that people have worked on improving during the past few months.

### Wellbeing and personal growth

Many respondents have adopted improved behaviours since the onset of the pandemic, with 51% spending more time on personal hygiene. 30%

have increased the amount of time spent on improving their mental health compared to pre-pandemic, with more women, 34%, doing so than men, 28%. Similarly, 37% of all respondents reported increased physical movement and exercise during this period, women 42%, men 34%.

When questioned about smoking habits, 14% respondents claimed to have reduced or quit smoking altogether. Interestingly, 46% of the respondents who reduced smoking earned an income of over AED 20,000, whereas only 22% of people earning up to AED 10,000



**ANDREEA ZUGRAVU,**  
Principal at Government and Economic Development, Kearney Middle East.

reduced or entirely quit, highlighting the pervasive behavioural impact of wealth and income.



## Jumbo Unwired offers stay home security for UAE families

With a surge in new home owners over the last year and a half in the UAE, home automation services, especially in the area of security has been witnessing an increase in adoption. The ability of smart devices to integrate seamlessly into existing infrastructure, while also fulfilling the aim of enabling automation, has also been responsible for enticing end-users to adopt enhanced security solutions

for their homes. Jumbo Unwired, the dedicated division for creating automated ecosystems under Jumbo Electronics which was launched in 2018 and has already successfully served more than 1,659 homes in the UAE by providing automated smart home solutions of a world-class level.

The last few weeks has seen a strong demand from customers for home security solutions,

with children being confined to the home while parents are returning to work. Jumbo Unwired’s team of expertly trained and certified engineers and consultants understand the requirements of every unique customer. Irrespective of the size of a home – be it an apartment, townhouse or villa; the team at Jumbo Unwired can review, advise and install the most appropriate security devices.

The smart security solutions provided by Jumbo Unwired are ideal for securing the external perimeter, hands free secure entry and internal surveillance. The network of smart cameras can monitor the home from anywhere in the world with advanced features like night vision and motion detection. The system also can assist in unlocking the home through your smartphone, biometrics or voice control to reduce contact with surfaces when returning home. Finally, if a home owner would like to get notified when a visitor arrives, a doorbell fitted with a camera presents itself as the perfect solution.

## Etihad ESCO joins Moro Hub’s Smart Cities Command and Control Centre



HE Saeed Mohammed Al Tayer, MD and CEO of Dubai Electricity and Water Authority, DEWA, witnessed the signing of an agreement between Etihad Energy Services Company, Etihad ESCO and Moro Hub, where

Etihad ESCO joins Moro Hub’s newly launched Smart Cities Command and Control Centre. Etihad ESCO will now benefit from Moro Hub’s world class digital, cloud and secured services while bringing its expertise in

measurement and verification, energy monitoring and management and facility management. As a Dubai 10x enabler, Moro Hub’s Smart Cities Command and Control Centre provides services in Intelligent IoT Platforms, Cyber Security and Managed Services to support the Government and Enterprise customers in their digital transformation journey. The agreement was signed by Mohamed Bin Sulaiman, CEO of Moro Hub and Ali Al Jassim, CEO of Etihad ESCO. Under this agreement, Etihad ESCO will accelerate their businesses and management services powered by emerging smart technologies to facilitate valuable savings. Moro Hub’s cutting-edge Smart Cities Command and Control Centre enables Government and Enterprise clients to fast track the adoption of new-age digital technologies such as IoT, Cyber Security, Cloud and more. The centre allows digital leaders to make well-informed decisions based on data-driven analysis.

## Kuwait's vertical farm using &ever Cloud, SAP Business Technology



&Ever Middle East, a joint venture between Kuwait's NOX Management and German company &ever, in partnership with German engineering companies SAP and Viessmann, has opened the first commercial indoor vertical farm in the Middle East. Kuwait, a country that previously relied on European and overseas imports for most of their leafy greens and herbs, can now locally grow up to 250 varieties of greens and herbs using Dryponics

technology. The facility, with approximately 3,000 sqm growing space, has a daily output capacity of up to 550 kg of salad, herbs, and cresses. The products are available in all leading retailers and coops under the brand name &ever Kuwait. The farm produces high-quality and sustainable crops indoors, which increase the nutritional quality and decrease environmental impact. The cutting-edge vertical farming

method uses 90% less water compared to traditional farming, 60% less fertiliser, and zero pesticides. Using a sustainable farm to fork model, the technology is able to preserve the plants' nutritional value until the produce reaches the customer. This knowledge exchange complements Germany and Kuwait's trade ties. Bilateral trade is €1.3 billion, and Germany's private sector invests €14.6 billion in Kuwait, according to Germany's Federal Foreign Office. The farm has partnered with Viessmann Refrigeration Solutions to develop highly efficient climatized rooms which are used in its indoor vertical farm. The technology is 40% more energy-efficient than other indoor vertical farming systems when it comes to energy use for climatization. &ever built its operating system, &ever Cloud, using the SAP Business Technology Platform, SAP HANA in-memory platform and SAP Cloud Platform. Farmers can monitor, analyse, and adjust hundreds of data points on plant health, airflow, light, carbon dioxide levels, humidity, and temperature in real-time.

## BRF's UAE plant saves \$130,000 by 100% water recycling

BRF's plant in the United Arab Emirates, the first in Abu Dhabi to produce animal protein food products on a large scale, will reuse 100% of the treated water from its production operations. The water will be used in the plant's refrigeration system and to water its gardens. As a result, the company will save 72,000 m<sup>3</sup> of water per year, equivalent to \$130,000. The project was developed in partnership with Water Engineering Technologies, WET.

The water will be purified through reverse osmosis, which is widely used in the Middle East given the water desalination projects adopted by countries in the region. Through the technology, all solid components are removed from the water, will then can be reused in the plant's refrigeration or to irrigate gardens.



The same solutions already have been implemented at BRF's plants in Turkey, which generated annual savings of \$70,000 and 50,000 m<sup>3</sup> of water.

With little more than five years of operations, BRF's Abu Dhabi plant is one of the company's most modern units and employs more than 530 people. It produces beef patties, hot dogs, marinated chicken breast, breaded chicken and special chicken cuts. Products are sold under the brands Sadia, Hilal and Perdix using

raw materials from Brazil. In addition to meeting demand from the United Arab Emirates, the unit also serves other countries, such as Saudi Arabia, Oman and Kuwait.

At the start of the year, BRF's plant in Abu Dhabi also implemented a new energy system based on Industry 4.0. In addition to financial benefits, which will lead to annual savings of around \$340,000, the initiative will bring considerable environmental gains for the unit, since it will reduce annual CO<sub>2</sub> emissions by roughly 1,800 tons.



## IMF estimates \$9T Covid-linked spending by governments

The Covid-19 pandemic means government spending has increased immensely, with the IMF calculating it to be a staggering \$9 trillion. For ACCA, the World Bank and IFAC, the concern is that public sector fiscal commitment and interventions are not being captured accurately by governments due to the way they account for this. In a new report titled Sustainable public finances through Covid-19,

the three organisations are calling for governments to use public sector balance sheets to properly manage their finances through the pandemic, paying attention to their public sector net worth. For some, this means a change in accounting methods from cash to accrual accounting.

By implementing a balance sheet approach, governments will benefit from:

- Increased clarity on the true position of the public finances, with an understanding of the fiscal room available for further government action
- Improved value for money and financially sustainable decision-making
- Enhanced public sector resilience and better adoption of key financial metrics to drive performance management

The report asserts that governments need to avoid poor-value privatisations, which provide immediate cash but reduce public sector net worth. Governments also can minimise reliance on tax increases or austerity by taking a balance sheet approach to foster sustainable public finances.

Other recommendations for governments include:

- The need to either reference or use full-accrual International Public Sector Accounting Standards, the only globally accepted accounting standards for the public sector, in the production of their general purpose financial reports.
- Directing independent fiscal policy institutions to begin fiscal sustainability reporting or to increase its frequency. Central finance departments should also be required to respond publicly to these reports in a timely manner.

## Bee'ah enters Saudi Arabia with waste management contracts



Bee'ah is expanding into Saudi Arabia in support of Saudi Vision 2030, after being awarded three contracts for waste management services in Madinah, covering the North, West and East regions. Bee'ah services will be conducted for 70% of the city, serving a population of 1.2 million people, as contracted by Madinah Municipality. Bee'ah will provide solid waste collection and transport services along with disinfection and sanitisation of

waste bins. Operations are scheduled to begin in August, utilising around 3,000 workers, along with 350 pieces of heavy equipment, including waste collection units, street sweepers and disposal trucks. Bee'ah will also conduct training sessions, workshops, and awareness campaigns.

As the region's first fully integrated environmental management company, Bee'ah will deploy its end-to-end waste

management solutions based on the twin pillars of sustainability and digitalisation. The goal is to provide a comprehensive roadmap for waste services, helping transform Madinah into a sustainable city of the future.

Bee'ah's efforts complement Saudi Arabia's Vision 2030 targets in sustainable development, which includes raising recycling rates to 85%. Securing the Madinah contracts are, therefore, a notable achievement for the company, since the expected population of the North, East and West districts, where Bee'ah will commence its operations, is expected to grow from a current 1.2 million to 1.46 million by 2024.

The partnership with Madinah to work toward a sustainable future for the city comes as Bee'ah closes in on its zero-waste objective in the UAE Emirate of Sharjah. Having already achieved the Middle East's highest waste diversion rate of 76% in Sharjah, Bee'ah is also building the UAE's first waste-to-energy plant in a joint venture partnership with Masdar.

## Dubai Sky Dome next after extensive use of drones in the UAE

Dubai's new drone law will position the emirate as the world's commercial and start-up hub for drone services and will drive growth in the region's drones industry, making it one of the strategic sectors that will lead to the economic recovery. This is according to Falcon Eye Drones, FEDS, a provider of Drone Technology, Data Technology, and Digital Transformation technology, who underscored the importance of the new law in removing a major barrier in developing and utilising drones to its fullest potential.

GCC's drone industry is expected to reach \$1.5 billion by 2022, according to PwC's Strategy&. Much of this, the study said, will be generated from oil and gas as well as utilities, constituting 43% and 32%, respectively. Before



Dubai's Law No 04 of 2020, no place in the world has ever formed a blanket law that covers the creation of an aerial infrastructure network and integrated framework for manufacturing, licensing, inspection, sale and ownership, as well as drone-based transport activities and services regulations.

The pioneering legislation will pave the way for the implementation of Dubai Sky Dome, an initiative that will provide a master plan of a virtual airspace infrastructure for commercial drone use in the Emirate. The law came following the

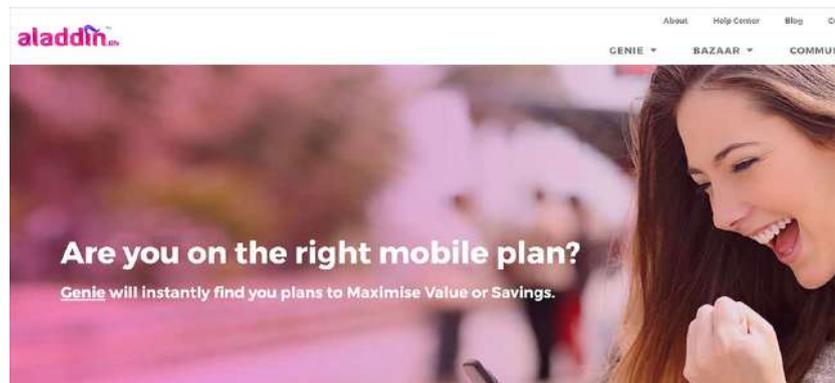
UAE government's extensive use of drones in the national sterilisation programme, as well as in its information dissemination, police patrolling and crowd guidance at the onset and during the Covid-19 pandemic.

These benefits are just the tip of the iceberg as the industry has not yet optimised the other uses of drones. Through R&D, drones can be developed as a revolutionary tool that will help various sectors embark on a large-scale digital transformation in the face of a new world order.

## Aladdin.life digital assistant Genie finds best mobile plans

UAE consumers have identified massive savings or more value opportunities on their monthly mobile costs with a simple Genie search on Aladdin.life, the UAE's largest online marketplace for mobile services. Aladdin.life helps customers not only discover, compare and make informed decisions about mobile plans and services, but it also connects customers online to a network of authorised sellers of Etisalat and du. Aladdin.life features a value-added service for existing customers in the form of a digital assistant Genie that is helping users either save more or get more data and minutes allowances at no extra cost.

With remote work and distance learning in place, UAE mobile users



demand for data grew exponentially since Aladdin.life was launched as a beta two months ago. Every day, about 1,000 searches are carried out on Aladdin.life beta platform by mobile subscribers looking to unlock the best value mobile plan for their needs and budgets. About 60,000 search operations have been carried out till date, with about 500,000 search results displayed.

Consumers using Genie's More Value search have identified plans with up to 10 times more data at no extra cost. Out of the UAE mobile

subscribers using Genie, 70% found more data than their current plan, 62% found at least two times as much data as their current plan, 48% found three times as much data, 33% found five times as much data and 11% found a whopping ten times as much data at no extra cost.

What's more, consumers were also able to identify plans with up to twice as many flexi minutes at no extra cost. 85% were able to find more flexi minutes than their current plan, while 63% found at least twice as many flexi minutes.



## Emirates Post, Local Knowledge offer digital location service

Emirates Post is expanding its product offering with the introduction of a digital location management service for UAE businesses called Smart Places. In partnership with Local Knowledge, a dedicated local listings management company, the new service will provide an easy and accessible

solution to business owners who seek to claim and update their business on Google Maps as well as other important digital platforms. Smart Places is an innovative digital transformation product specifically designed for bricks and mortar businesses as a we do it for you service to ensure they

are discoverable on today's mobile digital mapping platforms, apps, search engines and in-vehicle navigation systems.

A study conducted by Ipsos Research showed that 54% of business references on Google Maps are for the operating hours of the business alone. Smart Places optimises business listings with up-to-date operating hours, as well as contact information, exact location, category of business, photos and other important information that ensures the business will be accurately found on Google Maps, OK Google, Apple Maps, Siri Voice Search, TomTom Maps, HERE Maps, Foursquare, Facebook, what3words and other important digital platforms in both Arabic and English.

Smart Places is available to all legally-registered UAE businesses with a valid trade license, physical business location and UAE business phone number. Signing up is simple and a dedicated support agent is provided to claim, manage, and update listings for a quick and convenient process.

## NNTC and CROC release integrated version of Digital Worker

NNTC, a UAE-based software developer and solution provider, along with its strategic partner CROC has announced the release of a new version of their Digital Worker platform for industrial safety. The strategic partners have also released a new version of the IoT module capable of transforming ordinary hard hats into smart helmets. These updates are designed to boost safety, reduce risk and improve worker performance.

The Digital Worker system improves health, safety and environment control in industrial enterprises, and helps companies comply with international safety standards. It aggregates incoming



data from multiple systems, such as video surveillance, local positioning, and industrial and wearable IoT devices, to prevent safety rule violations and eliminate occupational injuries, while advancing worker discipline.

The new platform provides powerful data analysis features to process information. An intuitive data analytics interface, designed based on feedback from users, adds

convenience, while a new analytical panel builder allows users to create widgets displaying only relevant metrics.

The new release follows a series of successful projects implementing advanced technologies in companies in the GCC region and Eastern Europe, these companies leveraged their deep knowledge of industry specifics to help improve the platform.

# Etihad, Boeing, NASA, Safran partner on innovative solutions



Boeing and Etihad Airways will use a 787-10 Dreamliner to test ways to reduce emissions and noise as part of the aerospace company's ecoDemonstrator programme before the airline accepts delivery of the airplane this fall. The collaboration, which includes extensive sound measurement testing with industry partners, builds on a strategic sustainability alliance Boeing and Etihad formed in November 2019. The ecoDemonstrator programme utilises commercial aircraft to test technologies that can make aviation safer and more sustainable now and

into the future. The 2020 programme, which will begin testing in August, is the first to use a Boeing 787-10. Boeing and Etihad will work with industry leading partners, including NASA and Safran Landing Systems, to conduct aircraft noise measurements from sensors on the airplane and the ground. The data will be used to validate aircraft noise prediction processes and the sound reduction potential of aircraft designs, including landing gear, that are modified for quieter operations.

In addition, a flight will be conducted during which pilots, air traffic controllers and an airline's operations centre will simultaneously share digital information to optimise routing efficiency and enhance safety by reducing workload and radio frequency congestion. Test flights will be flown on a blend of sustainable fuel, which significantly lowers aviation's environmental footprint. The testing programme is expected to last about four weeks before Etihad enters its Boeing 787-10 into service.

## EY MENA report finds Covid created stockpile, hibernate, cut, carry on, spending segments



Aon, a global professional services firm providing a broad range of risk, retirement and health solutions, has published its 2020 Risk Maps report, which finds that Covid-19 pandemic will likely transform the geopolitical landscape. Extraordinary public health measures and a precipitous drop in global trade will continue to exert significant pressure on economies and governments and will reshape long-standing geopolitical norms.

Aon developed the 2020 Risk Maps in partnership with The Risk Advisory Group and Continuum Economics, which examine political risk, terrorism and political violence globally. Aon's Risk Maps are designed to help firms better understand and navigate evolving exposures created by these uniquely challenging risks.

In today's complex geopolitical and economic environment, the maps enable clients to identify and

track the different sources and degrees of risk, assisting businesses in planning and protecting assets, contracts and loans that could be adversely affected.

Countries that rely heavily on tourism or retail, or where there is a higher human toll from the pandemic, will face greater potential for civil unrest and government-focused protest, a risk that was already elevated prior to the pandemic. Aon's report finds three in five developed economies face the potential of strikes, riots and civil unrest in 2020 and it seems the Covid-19 pandemic will deepen those concerns.

Civil unrest, terrorism and political violence

- Economic stagnation and frustration over a range of political, social and environmental trends are the primary drivers of heightened unrest in traditionally stable economies.
- Environmentalism is becoming an increasingly prominent cause of civil unrest.
- Extreme right-wing attacks are increasing and multinational businesses, particularly within the technology, banking and media sectors, are targets.

## EWEC announces partners for world's largest solar project



The Emirates Water and Electricity Company, EWEC, has announced the award for the world's largest solar power plant. The project was awarded to a consortium led by Abu Dhabi National Energy Company, TAQA, and Masdar, with partners EDF and JinkoPower, for the development of the 2 GW Al Dhafra Solar Photovoltaic Independent Power Producer project, which

will be located approximately 35 kilometres from Abu Dhabi city. The project's power purchase agreement and shareholders' agreement were signed with EWEC.

The rigorous procurement process resulted in one of the most cost-competitive tariffs for solar PV energy, set at AED 4.97 fils per kWh, or \$1.35 cents per kWh, on a levelised cost of electricity basis. Upon full

commercial operation, the plant is expected to reduce Abu Dhabi's CO<sub>2</sub> emissions by more than 2.4 million metric tonnes per year, equivalent to removing approximately 470,000 cars from the road.

The Al Dhafra Solar PV project is expected to provide approximately 160,000 households across the UAE with electricity. It will be larger than TAQA's existing 1.2 GW Noor Abu Dhabi solar plant, which is currently the world's largest operational single-project solar PV plant.

Through this project, 60% will be owned by a consortium comprising TAQA and Masdar, while the remaining 40% will be owned by EDF and JinkoPower. The project's financial closure is expected to occur in Q3 2020, enabling initial power generation in H1 2022 and full generation by H2 2022. Once fully operational, the plant will increase Abu Dhabi's solar power capacity to approximately 3.2 GW.

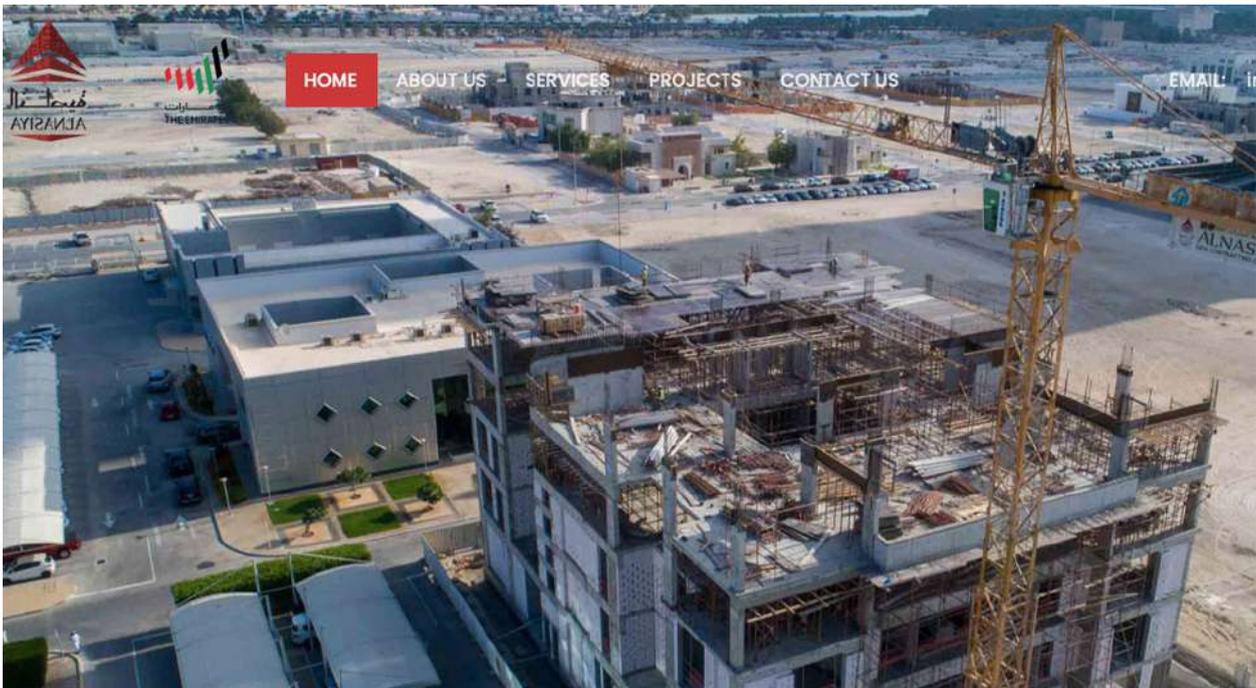


## Honeywell, Strata reach IM landmark for UAE-made N95 masks

Honeywell and Strata Manufacturing reached the manufacturing landmark of producing one million N95 masks in Strata's Al Ain facility. The collaboration is providing critical personal protective equipment for the UAE's front line health workers, while transforming the country into an international exporter of respirator masks to help limit the spread of Covid-19 around the world.

Since opening, the operation has been ramping up to full capacity production and is on track to reach its annual target of producing over 30 million masks. A combined Honeywell and Strata workforce of 70 has increased daily production of PPE to meet growing national requirements as well as support international needs in the future.

The collaboration between Honeywell and Mubadala is part of Mubadala's #WeAreDedicated campaign, a recently launched group-wide response to the Covid-19 pandemic and its efforts to coordinate initiatives across its business platforms and assets to support communities locally and internationally.



## NNTC's face recognition tech used at Al Nasiya Construction

NNTC, a UAE-based software developer and solutions provider, has announced the successful implementation of its iFalcon Foreman solution at Al Nasiya Construction, a contracting firm in the UAE. Powered by NNTC's trademark iFalcon video analytics technology, this solution is specifically engineered for the construction industry and automates the processes of monitoring worker attendance, subcontractor attendance and calculating overtime. The iFalcon Foreman application scans the faces of workers before the start of each shift with its recognition accuracy at over 98% and automatically clocks them in. This automation of an otherwise time-consuming manual process speeds up check-in by five times, simplifies monitoring, and increases transparency on subcontractor attendance with instant overtime calculation.

As a result of implementing the iFalcon Foreman application, Al Nasiya Contracting has gained anywhere-anytime access to worker schedules and shift reports, insight into the overtime hours clocked by its workforce, as well as a comprehensive view of attendance on multiple sites.



**MILAN SHETH,**  
Executive Vice President,  
IMEA, Automation Anywhere.

## Saudi German Hospital deploys Automation Anywhere solutions

Automation Anywhere has announced a collaboration with Saudi German Hospital, SGH, using AI-powered software bots to help improve patient care and automate end-to-end business processes during the Covid-19 crisis. The digital workers provided by Automation Anywhere are expected to transform SGH front and back offices to modernise key touchpoints, from patient on-boarding to insurance billings, office management operations and other financial processes, ultimately improving business resiliency for one of the largest healthcare providers in the region. The deployment was facilitated by Advansys ESC.

The RPA implementations are expected to have a huge impact to reduce patient waiting times and improved patient experiences. Automation Anywhere and Advansys ESC worked with Saudi German Hospital to also identify automation opportunities in its insurance and finance departments that typically handle high-volume manual processes, such as insurance eligibility, insurance pre-authorisation and patient enrolment.

## American Hospital Dubai adopts RLDatix for incident reporting

RLDatix has announced that it has signed an agreement with the American Hospital Dubai, which will allow American Hospital to use the company's software to power its patient safety and organisational improvement initiatives in order to actively provide proactive risk mitigation instead of reactive risk management. American Hospital Dubai will utilise RLDatix's incident reporting, patient feedback and dashboard technology to drive informed decision making, risk mitigation and performance improvement across the hospital and its remote clinics, with a goal of reducing preventable harm and improving the overall patient experience.

As the first private hospital in Dubai to implement RLDatix, American Hospital Dubai reaffirms its position as a pioneering leader and a patient-centric healthcare



delivery system in the GCC. American Hospital Dubai joins a prestigious list of organisations already utilising RLDatix software across the region.

A part of the Mohamed & Obaid Al Mulla Group, American Hospital was established in Dubai in 1996 with the goal of delivering world-class medical services to the community. Its state-of-the-art facilities are home to an experienced team of healthcare professionals in more than 40 medical and surgical specialties. All physicians at American Hospital are American

Board Certified or equivalent, ensuring patients in the UAE receive an international standard of care. It is the first private hospital in the region to be accredited by the College of American Pathologists and is an inaugural member of the Mayo Care Network.

In addition to its partnership with American Hospital Dubai, RLDatix also stated it plans to open an office in Dubai, its second in the GCC region. The first, which has been in place for several years, is located in Riyadh, Saudi Arabia.

## Etisalat provides high speed connectivity to DIFC businesses

Dubai International Financial Centre, DIFC, has signed a MoU with Etisalat to provide advanced digital infrastructure to businesses registered within DIFC. The agreement was signed between Arif Amiri, Chief Executive Officer of DIFC Authority and Salvador Anglada, Group Chief Business Officer of Etisalat. The collaboration will enable Etisalat to deploy innovative technologies in DIFC. These include advanced telecommunication infrastructure, high-speed internet and superior mobile connectivity. DIFC will also become a preferred location for



Etisalat to test and deploy new smart technologies as they are developed.

In line with Dubai's 2021 strategy, the agreement will also allow DIFC and Etisalat to collaborate on implementing smart city initiatives utilising big data, analytics and new technology. These initiatives will allow DIFC to understand trends

which will help enhance their business and lifestyle offerings. Comprehensive building, energy consumption, waste management and vehicle parking smart systems will be explored, supporting Dubai and DIFC's ambitions to be the region's most sustainable city for financial services.



## BRF cuts 45% energy use on 12,000 PCs with MS tool

BRF, a global food companies, has installed a new energy management solution from the Microsoft System Centre on around 12,000 computers across the company, consequently reducing energy consumption by its computers by 45%. This technology monitors when the equipment is idle and automatically reduces energy

consumption. In terms of numbers, the reduction comes to 1.6 million kwph, resulting in savings of nearly R\$720,000 a year. For comparison, this amount of energy is sufficient to supply around 850 households for a year.

The new technology can manage the entire datacentre, also

diagnosing and solving problems. Besides managing the integrated IT services, the system also automates tasks and speeds up processes. To make the reduction in power consumption possible, BRF upgraded the machines to Windows 10 due to its better compatibility with the System Centre, a tool already used by the company for some time.

The operating system was also important for installing the new device, as it has facilities to automate energy consumption practices. The process was split into stages so that the computers could be upgraded with the least possible impact.

Everything was executed in an automated manner through the System Centre. The IT team approached users and together they could pick the best time for each computer to be upgraded. Besides requiring very few IT staff, the remote update of Windows reduced costs and increased efficiency. This kept operations running and did not hinder employees' routines.



## STC deploys 4,500+ critical comms devices for govt entities

STC reveals that the number of critical communications devices used by ministries of Health, Hajj and Umrah, and Water Company for communication at the Holy Places amounted to 4,765 devices, which were designated for emergency and sensitive services. The company indicated that it has dedicated all its technical and human capabilities to serve pilgrims and to ensure the

success of the pilgrimage season, under the current extraordinary circumstances, by providing a distinctive package of critical communications dedicated to emergency and sensitive services to ensure the best services to the relevant sectors.

STC affiliate also provides coverage networks for Tetra services as well as press and talk service, which

is the next generation of critical communications for facilities that require immediate communication with reliability and safety through broadband technology, and other services in Makkah region.

STC constructed, developed and expanded several sites, alongside with the Holy Places. It established other networks in critical areas of Saudi Arabia, including most airports and ports of Saudi Arabia and the industrial zone. STC plans to cover all major cities and critical regions in Saudi Arabia.

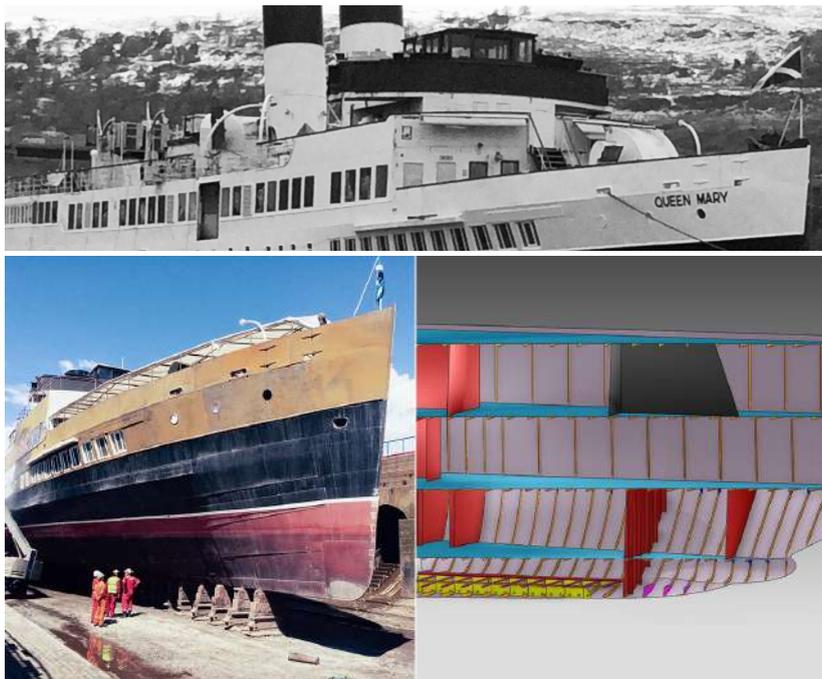
Critical communications can accommodate huge working groups, in addition to its high security and high encryption level for calls, and its 99.99% dynamic operation in emergencies. Ordinary communication networks are not able to handle call traffic in emergencies, especially in crowded places, such as the Holy Places, where more than two million communication users and devices congregate in one place.

# AVEVA 3D software will help restore 1930's TS Mary steamship

AVEVA has donated over £100,000 worth of 3D visualisation shipbuilding software to support the restoration of the TS Queen Mary, an iconic steamship built in 1933 to serve Glasgow and the West of Scotland. AVEVA will supply its purpose-built solution for shipbuilding that offers integrated 1D, 2D and 3D engineering and design tools pro bono to support the Friends of TS Queen Mary and naval architects Brookes Bell restore the vessel.

The transformation of the TS Queen Mary follows a historic life in service, during which she regularly transported more than 13,000 passengers a week throughout World War II and maintained vital transport services on the River Clyde. The last vessel of her kind in the world listed in the Core 40 fleet of the UK's National Historic Ship Register, as a ship of national pre-eminence.

HRH Princess Anne, the Princess Royal, is royal Patron of the ship. It transported King George VI, Queen Elizabeth the Queen Mother, and young Princesses Elizabeth and Margaret as well as Mrs. Eleanor Roosevelt during World War II. The



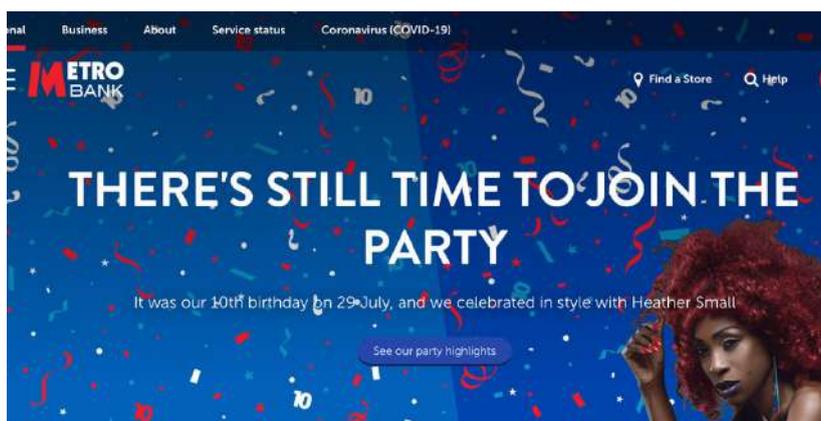
ship is being restored as a heritage destination in Glasgow and will be open to members of the public in 2022.

Friends of TS Queen Mary and Brookes Bell chose AVEVA's shipbuilding solution to capture the complex shapes of the ship's design so that they can begin the restoration process. The software

used previously was not parametric, meaning it required a great deal of manual input, increasing the risk of potential inaccuracies in models and drawings, resulting in more design iterations. The introduction of AVEVA's advanced shipbuilding software will enable the original vessel structure to be 3D-modelled accurately and in detail.

## UK's Metro Bank selects Wipro for testing management services

Wipro has announced that Metro Bank, a UK-based retail and commercial bank, has awarded a multi-year contract to deliver and transform testing and environment management services. As part of this partnership, Wipro will leverage its digital and quality engineering capabilities to drive transformation through automation, service virtualisation and DevSecOps enablement. This will help Metro Bank achieve its objectives around



cost, pace and quality of operations and further differentiate them from other high street banks.

Wipro will accelerate the bank's digital journey through its marquee offerings, Virtual Automation Engineer, IntelliAssure and Digital Rig. In addition, Wipro has been chosen as one of the preferred partners to deliver business-IT services across Metro Bank functions.



## Ericsson to manage energy ops for TAWAL's tower infrastructure

TAWAL, a telecom tower companies in the region, has signed a managed services agreement with Ericsson. Ericsson's end-to-end managed services including Ericsson's Energy Infrastructure Operations, energy solution, offers

an innovative approach to operate energy infrastructure for mobile operators and tower companies. This agreement is a major step forward by TAWAL to support Saudi Arabia's Vision 2030 by establishing infrastructure for

telecommunications operators and a stable platform to ensure connectivity for all residents.

Under the terms of the contract with TAWAL, Ericsson will assume responsibility for managed services for TAWAL's tower infrastructure and provide energy management solutions. Ericsson will ensure the highest levels of energy efficiency and availability, utilising AI and automation and energy management platform. This will result in reduced CO2 emissions, improved network up-time and significant operational expenditure savings.

The operational benefits of Ericsson's Energy Infrastructure Operations include the ability to remotely monitor site infrastructure, enabling predictive maintenance and automated actions without the need to visit the site. This can be particularly useful in a country such as Saudi Arabia that features a large geography, enabling remote access to rural areas.



## STC increases 5G coverage by 119% in Mecca and holy sites

STC increased the coverage of 5G network in Mecca and the holy sites during the current Hajj season of 1441 AH by 119% compared to last year, in addition to increasing the capacity of the 4G network by 88%, with the aim of developing services provided to guests and providing

innovative digital solutions to the government sectors involved in serving pilgrims.

The 5G network has been strengthened in hundreds of locations in different regions within the Holy Lands, in addition to the Holy Sites in Mecca and Madinah,

which include the Two Holy Mosques and vital areas that pilgrims and visitors frequent.

This move reflects the cultural aspect of Saudi Arabia as a global leader in 5G technology in addition to promoting internal solutions in the areas of Hajj and Jamrat to ensure the best communication experience. The service sites include airports and accommodation areas for the pilgrims. Free umbrellas were provided along with environmentally friendly water bottles in all areas frequented by pilgrims to perform their rituals.

The company carried out preventive maintenance and monitoring work on all parts of the network, including thousands of land lines and hundreds of circuits supporting the governmental and private sectors and aiding them through remote and on-site work to service the pilgrims efficiently and easily.

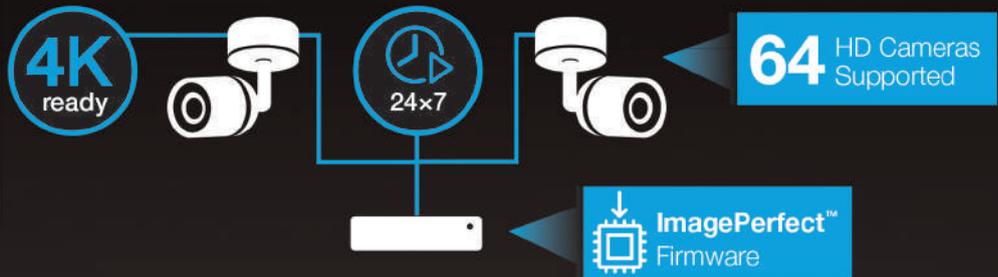
# Vigilance Built From Within

## CHOOSE THE RIGHT SURVEILLANCE STORAGE



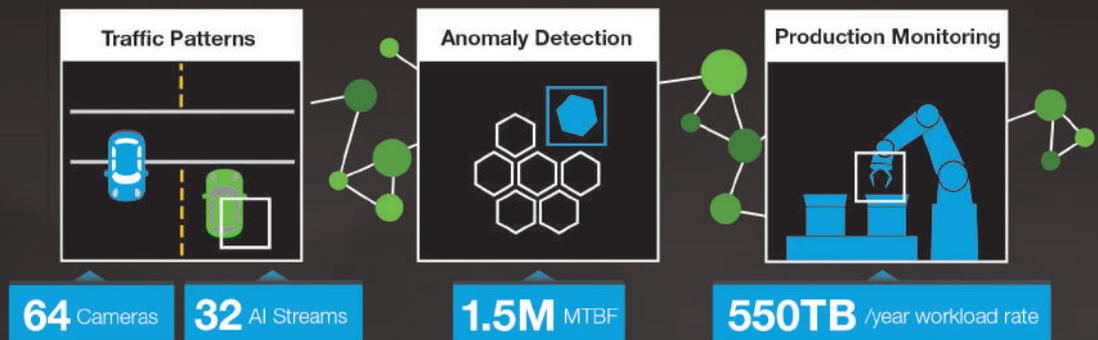
### ALWAYS-ON

SkyHawk® provides reliable 24x7, 4k-ready support video DVR/NVR environments.



### SMART

SkyHawk AI enables reliable storage for surveillance AI-enabled NVR systems to simultaneously record both video and AI streams with enterprise performance and reliability.



## THE RIGHT SOLUTION

### PURPOSE

**SkyHawk** is best for video-only, write-intensive applications.

**SkyHawk AI** is best for video, video + AI, and mixed workload applications.

### SCALABILITY

**SkyHawk** is best for DVR/NVR video-only applications.

**SkyHawk AI** simultaneously supports the heavier workloads of AI and video streams for AI-enabled NVR.

### RELIABILITY

**SkyHawk** provides 3x the workload performance of standard desktop drives.

**SkyHawk AI** provides an enterprise-class workload rate (3x that of Skyhawk) while delivering drive reliability and longevity.



**IAN CLARKE,**  
*Vice President of Global Submarine  
Sales, Ciena.*

## HOW CIENA REBUILT THE EIG SUBMARINE CABLE SYSTEM FOR 5G

The Europe India Gateway submarine cable system is one of the primary data connections between India and Europe, the Middle East and Africa. The Europe India Gateway cable system is a 15,000km international fiber optic submarine system that links the United Kingdom with Gibraltar, Portugal, Monaco, France, Libya, Egypt, Saudi Arabia, Djibouti, Oman, United Arab Emirates and India. Europe India Gateway came into service in 2011.

The Europe India Gateway submarine cable system has been upgraded to accelerate and strengthen connectivity between businesses in the UK, Europe, the Middle East and India. The cable

has been upgraded with Ciena's GeoMesh solution, powered by WaveLogic Ai coherent optics, which offers Europe India Gateway new levels of flexibility, the lowest cost per transported bit, and the ability to meet unpredictable traffic demands.

The upgrade adds 24.3 TBPS of information carrying capacity to the Europe India Gateway cable, with a spectral efficiency increase of 52%, in comparison to previous technology which eases data traffic congestion and supports growing bandwidth requirements.

The upgrade allows Europe India Gateway to use flexible, express wavelengths, also known as optical bypass, to reduce operational costs as well as space and power

requirements through improving reliability. Furthermore, thanks to WaveLogic Ai, Europe India Gateway can transport up to 400GBPS per wavelength, driving more capacity per channel at longer distances.

Ciena's submarine network solution will enable Europe India Gateway's customers to have quicker and reliable connectivity between businesses in the UK, Europe, the Middle East and India.

The advent of 5G will lead to huge demand for submarine cables. 5G connectivity will lead to a huge data production and consumption as more and more devices will be able to communicate with each other. Ciena's submarine network solution will enable Europe India



than one cable to mitigate the impacts of an outage. Non-urgent work will be carried out during periods of low demand, typically late at night.

If the cable is cut or fails, most Europe India Gateway owners will have redundant capacity on other submarine cables in the region. Satellite is generally no longer a viable alternative to submarine cables due to the limited bandwidth that satellites provide compared to submarine cables.

As part of this upgrade, we are providing turnkey solutions that are based on acceptance duration criteria, so there is no typical SLA. We deliver complex upgrades across the network, enabling more traffic migration powered by the latest technology.

Upon acceptance, Europe India Gateway handover of the capacity to each consortia member is based on their entitlement. After this, each party will then sell its capacity. Ciena is not engaged at this stage. Europe India Gateway can easily scale capacity by turning up new wavelengths using Ciena's WaveLogic Ai. ■

Gateway's customers to have quicker and reliable connectivity between businesses, which means that this new solution eases data traffic congestion and supports growing bandwidth requirements.

Optimising the capacity additions on any submarine cable is an important design consideration. The latest technology was added onto the cable and, where possible, it replaced older technology that was not optimal for maximum capacity of the system to be achieved. Any migration of capacity from the existing transmission platform to the new transmission platform was carefully planned and potential traffic affecting activities were scheduled during designated maintenance windows.

There are several submarine cables that have similar routing to Europe India Gateway and most telcos will have capacity spread across more

## KEY TAKEAWAYS

- The cable has been upgraded with new levels of flexibility, lowest cost per transported bit.
- The advent of 5G will lead to huge demand for submarine cables.
- Optimising capacity additions on any submarine cable is an important design consideration.
- Migration of capacity from existing transmission platform to the new transmission platform was carefully planned.

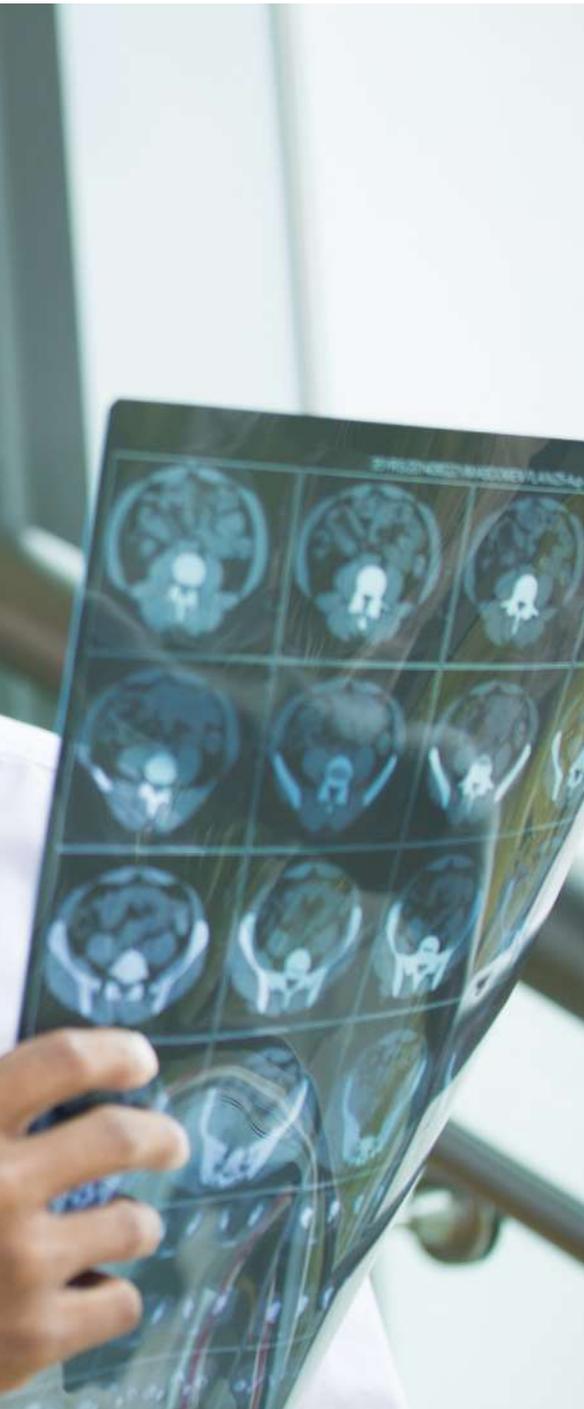


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## APOLLO GROUP HOSPITALS

# PANDEMIC DISRUPTING HEALTHCARE PRACTICES FOR BETTER

While the pandemic stretched healthcare to the edge, it has triggered positive changes such as enhanced care for workers and using a lower cost base.



DR K HARI PRASAD,  
President of Apollo Group Hospitals.

up has adopted telemedicine for some time now and it is part of its 24x7 services.

Apollo Hospitals was established in 1983, a milestone for modern healthcare in India. As the nation's first corporate hospital, Apollo Hospitals has pioneered private healthcare in the country. Apollo Hospitals now provides integrated healthcare services and has a presence through hospitals, pharmacies, primary care, diagnostic clinics and telemedicine units. One of Apollo's significant contributions has been the adoption of clinical excellence as an industry standard.

Apollo Hospitals also provides 24x7 services that includes consultation with 15 minutes; online booking for medical tests; online consultation follow-up through audio, video, chat; online purchase of medicines and delivery within 3 hours through the network of Apollo pharmacies; digital storage of medical records; amongst others.

Apollo Hospitals was among the first hospitals in the world to leverage technology to facilitate seamless healthcare delivery. The organisation introduced Proton Beam Therapy Center that is expected to serve over 3 billion people. Since inception, Apollo Hospitals has been trusted by 65+ million patients from 141 countries.

#### GAINS AND PAINS

Due to the pandemic, the regular

workflow at the hospitals of the Apollo Group was affected. The number of elective patients fell sharply. As the patients do come in for elective consultation, it is necessary to identify any suspect Covid-19 cases amongst them, and administer suitable healthcare, through triaging.

All these challenges are rather new for the healthcare industry and Apollo Group. "We are juggling between them and trying to do our best under current circumstances obviously. We are creating a safe environment for our doctors and staff and for people who visit our hospitals," remarks Dr K Hari Prasad, President of Apollo Group Hospitals.

On the positive side, the pandemic is driving major transformational changes across the healthcare industry.

Before the pandemic, healthcare infections were a big cause for worry, across the world. The pandemic has drawn attention to the exposure that healthcare workers go through, and that is a positive change, according to Hari Prasad. "I think the world has changed for good and similarly healthcare has also changed for good. Healthcare providers will be more careful in protecting themselves and making sure that they do not contract anything from their patients," he adds.

Moreover, these changes are not one off and will remain in place, since the presence and impact of Covid-19 is not short term. This is having a positive impact on the longer-term management of hospital acquired infections and health care infections. "These precautions will have positive impact," says Hari Prasad.

Apollo Group has adopted telemedicine for some time now and it is part of its 24x7 services. This service is administered through 4,000 pharmacies and 450 diagnostic collection centers, and the integrated approach to outpatient care already exists. However, the pandemic



Another area where Apollo Group Hospitals has applied artificial intelligence is on the probability of women developing Cervical cancer in India.

Cervical cancer is a major cause of cancer mortality in women and more than a quarter of its global burden is contributed by developing countries, including India. In India, cervical cancer contributes to approximately

6–29% of cancer in women, according to a report published in the Indian Journal of Medical and Pediatric Oncology.

A regular healthcare practice for the detection of Cervical cancer has been the Pap smear. Detecting cervical cancer early with a Pap smear gives the patient a greater chance to get cured. However, Hari Prasad points out that the large Indian population and its distribution creates challenges. Once a patient comes for a checkup and then leaves, it is difficult to track them down again for treatment, after the clinical result comes through.

To detect Cervical cancer, Apollo Group Hospitals now captures an image of the cervix and uploads it into a cloud application supported by artificial intelligence tools. The result from the scanning aided by artificial intelligence categorises the patient into high risk; low risk or no risk. “This helps us to segregate high risk patients immediately and take care of them,” adds Hari Prasad.

#### BEGINNING OF END GAME

The topmost consideration in everyone’s mind across the global

healthcare industry is how will the pandemic end and what is the end point of the pandemic. Hari Prasad indicates that there are three essential dynamics that need to come together to accelerate the end of the pandemic and the end point. “There are three things, which we need to happen to end this pandemic.”

The first is the successful development of a vaccine. The second is the development of antiviral drug treatment specific to Covid-19. And the third is the development of herd immunity, as a consequence of wide spread infections and clinical sub-infections.

“These three things need to happen for the pandemic to slow down. All the data that is coming out right now is being used for creating a vaccine and to test various drugs, and to create the most appropriate drug in the current environment,” says Hari Prasad.

“The first thing that is on everybody’s mind is how to end this pandemic. The data is being used towards that end point. That is why you see different types of drugs coming up in different points of time.”

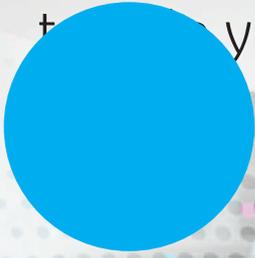
However, Hari Prasad points out that most of the announcements are based on epidemiological data collection and analysis, which is the branch of medicine that deals with incidence, distribution, and control of diseases. “The scientific basis of it all, will need to come from further studies and analysis,” he explains.

Has technology and innovation been sufficiently used to predict the end game? Hari Prasad believes so! Considering that Covid-19 is being seen for the first time and the short duration of six months, in which to understand it, adapt and react, a good job has been done. “I am sure going ahead we will see much more coming out of the data being collected across the work. These are the few things that are bound to happen and will happen.” ■

All the data that is coming out right now is being used for creating a vaccine and to test various drugs.



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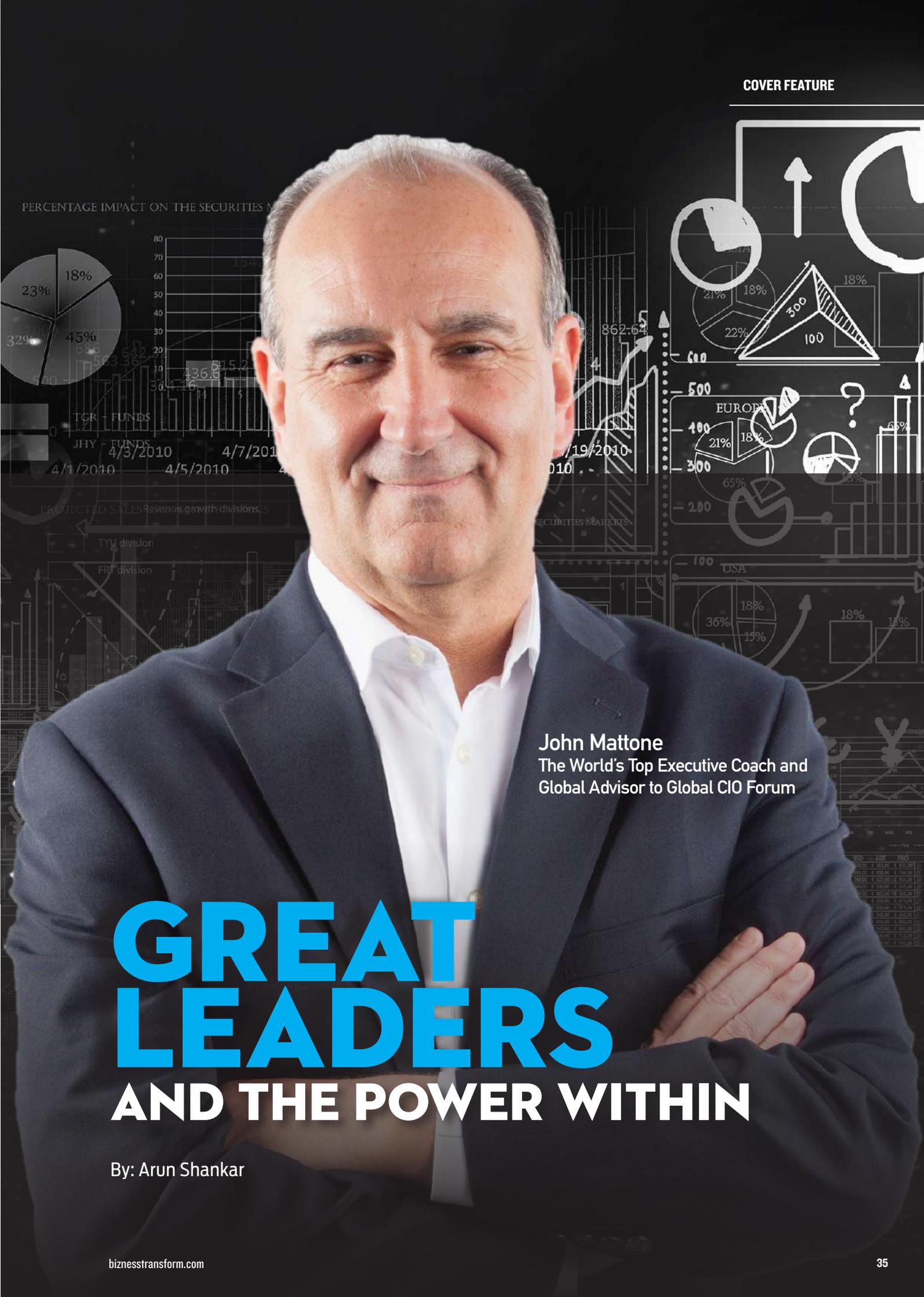
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**John Mattone**  
The World's Top Executive Coach and  
Global Advisor to Global CIO Forum

# GREAT LEADERS

## AND THE POWER WITHIN

By: Arun Shankar

Top executives who aspire to become great leaders need to be engaged in a continuous process of self-discovery and self-learning, as they set higher and higher standards for themselves and attract and build great teams around themselves.

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Managing the pandemic has been a major learning curve for every organisation and every nation in the world. The position of workers, teams, business models, and technology, have been disrupted, paving the way for a fresh set of positions and equations to emerge. Amongst all this has been the question of how the top executive should be managing the pandemic and playing the role of a great leader.

Many months have passed since the pandemic first arrived and some organisations have done well to cope and others not as well. “If they have not done a good job it is not going to bode well for the future,” says John Mattone, the World’s Top Executive Coach and Global Advisor to Global CIO Forum.

The pandemic represents the first event that has impacted humankind so completely in recent memory, and it may not be the last. So, what do organisations need to do and need to know to manage disruptions of the same scale or less. Mattone points out that every leader in the world is having to recognise that individuals

and teams have been disrupted from how they used to work and are now working virtually. What people are looking for right now is security.

“The truly great leaders I have worked with over the past few months have raised the bar on the human elements, from being courteous, compassionate, caring, collaborative, and over communicative. If that culture has not been at least attempted during this very difficult time, it is going to be a major uphill battle in my mind to hold on to really great talent,” reflects Mattone. “You can have some great minds out there that you are going to end up losing.”

Organisations that have been built successfully in the past decade, must now depend on how effective their leaders are in building a culture that incites passion and motivation. The elements of an organisation’s culture are the leading indicators that will predict their operating results. Great leaders get that and those leaders that do not are in jeopardy. “In all this, it is okay for the top executive to show their heart authentically,”

says Mattone.

But Mattone cautions further on using such words easily. “Those are the ingredients that are needed for an organisation to successfully overcome the pandemic or any disruption and that is not easy. There is a lot of people out there in the executive ranks, who have a really hard time doing what we just said.”

#### CREATING WINNING ORGANISATIONS AND CULTURE

The secret of a winning organisation begins at the top, according to Mattone, which includes the CEO and the senior executive team. The ability to win starts with an incredible executive leader, who has a strong character, a strong value system, and positive thinking patterns. Such leaders are able to translate gifts within themselves, the strengths of their inner core, into leadership skills, and motivate people to perform at a high level supporting the vision of the organisation.

“It is my experience that a winning culture always starts with the CEO, and the senior executive team,” he points out.

Another characteristic of the CEO and the executive team that lead a winning organisation, is their mindset of thinking very big and very differently in a disruptive world. While Covid-19 was a massive disruptive force across the world, there are always going to be disruptive events in the years ahead. This is especially true for organisations that are part of the technology industry. “They are

For the senior team, whatever values are embraced those values have got to be executed with precision

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## HOW TO CREATE A WINNING CULTURE

- The secret of a winning organisation begins at the top.
- Ability to win starts with an incredible executive leader.
- Winning culture starts with CEO and senior executive team.
- A winning culture ignites passion and attracts talent.
- For Mattone the word agility is synonymous with maturity and learning.
- It is not just maturity in C-suite, it is non-negotiable at all levels.
- People at all levels need to be hungry to learn and acquire knowledge.
- Great leaders tend to attract people who are hungry to learn
- Winning organisations attract people who are good with people.
- You need all kinds of people in an innovative company.
- The question is can organisations deliver on their constitution.

When people within an organisation, feel their values are aligned, there is passion in their execution

moving the needle in a positive way for the world,” says Mattone.

While the instigator to thinking big is to have the right CEO, who has a pedigree of being disruptive, the senior executive team that follows also need to be big thinkers. Great leaders also understand that when they are building a winning culture that reflects their value system, it ignites passion and attracts talent. This can make a big difference in supporting the vision of the organisation and creating something special in the marketplace.

“You need really big thinkers in the CEO suite. If you attract big thinkers you are going to have a big thinking culture, and that is critical. Getting people who are disruptors is going to drive that culture,” says Mattone.

Having people in an organisation who are learning oriented, while reinforcing the importance of leadership development at all levels, will ignite the mentality of thinking big and thinking differently. Executive retreats are important for igniting the ability to think differently and thinking big, individually and collectively. Sending executives to university programmes with other successful executives, from other countries and from other industries, is very important to think big and think differently.

For organisations to succeed in this digital and post-pandemic phase, in the corporate environment, they need to be very, very agile, according to Mattone. “This is a global phenomenon,” he points

## Organisations struggle with engagement at highest level, by professing values and failing to deliver

out, and is not just restricted to a country or industry sector or type of organisation. For Mattone, the word agility is synonymous with maturity and learning. “And it is not just maturity in the C-suite. I also think it is non-negotiable at all levels of an organisation.”

People at all levels of the organisation need to be hungry to learn and acquire knowledge. They need to do this in order to do their jobs better and support the vision of the organisation. Mattone refers to this as, being agile with respect to learning. Moreover, winning organisations and great leaders, attract people who are good with people. “You need all kinds of people in a winning company to build all kinds of cultures,” says Mattone.

Great leaders tend to attract people who are hungry to learn, and also people who are able to handle change. Organisations and people, who are rigid and inflexible and get comfortable with their station in life, are probably not going to survive in the business world. And this is especially true for technology companies.

Most transformation projects fail according to global consulting company BCG. So, what are the primary reasons for failure according to Mattone? “Ineffective leadership, inadequate talent, and inferior culture.”

Winning organisations are also

## A truly innovative organisation relies on thinking really big and is led by massive thinkers

### NAVIGATING THE PANDEMIC AND OTHER DISRUPTIONS

- It is okay for the top executive to show their heart authentically.
- There is a lot of people out there who have a hard time doing what we just said.

Another factor missed by senior executives is recognising the role inner value system can play

An executive shy of recognising their strengths may create a culture reflecting non-recognition

successful in avoiding the trap of falling into a bottomless comfort zone. As organisations grow and are successful, it is increasingly easy for them to rest on their laurels and become complacent. Over time as competition heats up and the market ecosystem changes, the pleasure of staying inside this comfort zone becomes increasingly more preferable than the pain of accepting the changes required to step outside. The process of applying the band-aid begins and never ends. It just goes on and on.

“Organisations that are innovative have created cultures where they induce in the mindsets of the entire organisation, that we cannot stay in this zone. So, you cannot get comfortable, with the competition out there, you can be supplanted very quickly,” explains Mattone.

#### GREAT LEADERS CAN SHOW THEIR HEART

Along this journey, the C-suite and other senior executives cannot forget that they also need to deliver, what they have promised and why other great people have joined

their organisation. “No matter the mission, vision, purpose, constitution – the question is, can the organisation deliver on that constitution? And most cannot,” stresses Mattone.

This is the singular reason why organisations fail to become winning organisations. For the senior executive team, whatever values are embraced and communicated and internalised those values have got to be practised and executed with precision. Organisations struggle with engagement at the highest level, by professing a certain set of values, and failing to deliver it within the organisation.

It is only when people within an organisation, feel their values are aligned, that there is passion in their execution. Across the technology industry, it is people who have built and continue to build the foundations for advancements and innovation.

Some of the greatest leaders are able to balance their role across the organisation. On the one hand they have a strong and passionate drive for the operating results of the organisation. On the other hand, they are able to embody the value system of the organisation that is a leading indicator of its sustainability.

A lot of people feel that you cannot do both, that is a maniacal pursuit of operating results and the ability to show your heart at work. “I work with a lot of CEOs to get them to show more heart in their work, and it is okay to show your heart with the teams,” says Mattone.

Sometimes CEOs feel guilty about showing their heart at work and going in that direction. But when they learn they can optimise results and also show their heart without losing results, it becomes a very strong picture. Points out Mattone, “I do see that consistently across the globe, great CEOs will not take the foot of the pedal, but how they push is variable. It is important to recognise that as a great leader.”

# ABOUT JOHN MATTONE

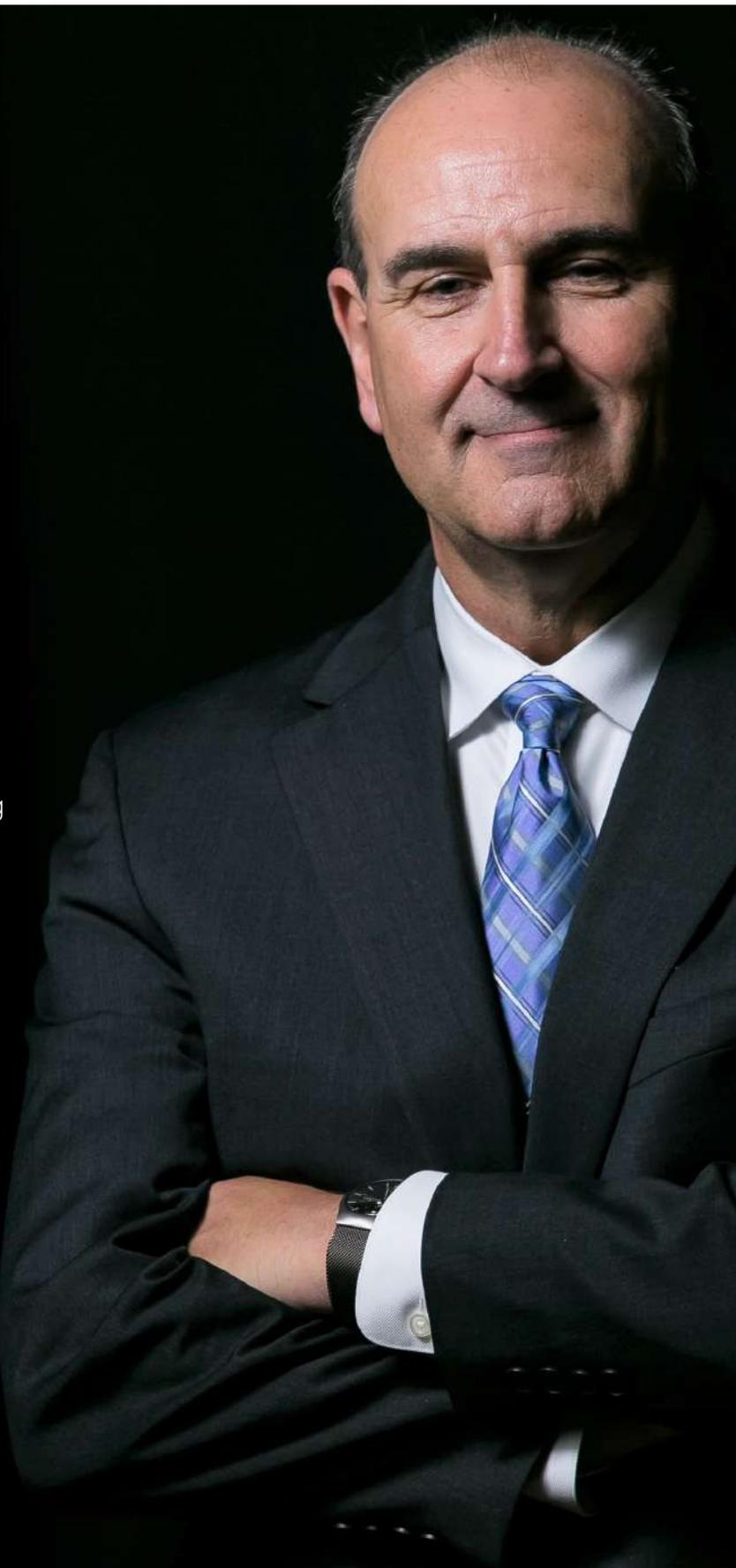
John Mattone is the world's Top Executive Coach and Global Advisor to Global CIO Forum. Mattone has partnered with Global CIO Forum and led multiple websummits across the months of June, July and August in 2020. These include Turbulence or Calm, Live the Life You Deserve; Response-ABLE Leadership, Everything You Do Matters; 5 Cultures of Culture.

John and his team recently launched Intelligent Leadership® Online Academy, a revolutionary online platform and accountability-based leadership programme based on Mattone's global bestseller and top 50 leadership books of all time, *The Intelligent Leader: Unlocking the 7 Secrets to Leading Others* and *Leaving Your Legacy*.

Working with Mattone as your personal coach, leaders and future leaders will learn the new normal, leadership skills required in today's complex business world. These are empowering yourself and others, managing teams remotely, managing and leading change in a volatile, uncertain, chaotic, ambiguous world, and solving problems with a multiplier effect. Intelligent Leadership and Executive Coaching equips leaders and emerging leaders with both the winning mindset and inner-core strength needed to spark, fuel, and grow their new-normal leadership capabilities.

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As successful organisations grow, they may be tempted to stray from the path they intended to tread

There is a lot of people out there in the executive ranks, who have a hard time doing what we said

If you have a digital business model, but not the other part of the equation, it is not sustainable

#### BECOMING A GREAT LEADER

According to Mattone, senior executives can face multiple challenges on the path to becoming great leaders. Amongst his many experiences, Mattone feels that one of the biggest obstacles is when executives do not embrace and are not proud of their gifts and strengths, at least privately.

“When I discover that and bring it to the attention of CEOs, they are uncomfortable about looking and even talking about their gifts and strengths. In fact, that could be their biggest weakness – an unwillingness to take a look at those gifts and strengths that have served you so well.” And this is also going to hold up their development significantly.

The reason why this is so important, is an executive who is shy of acknowledging and recognising their own strengths and gifts may soon create a culture that reflects this same approach, of non-recognition. “And that is a shame, we do not want to happen. Just because you do not want to recognise your own gifts and strengths, you do not want to create a culture

where you are not going to see gifts and strengths of people in your organisation. That is a disaster!” feels Mattone.

“I see that in a lot of executives out there,” adds Mattone, and the question that executives should ask themselves is, is it spilling into their organisation’s environment.

Another significant challenge faced by executives in their journey towards becoming great leaders is when they fall prey to distractions. As successful organisations proposer and grow, they may be tempted to stray from the path they intended to tread. And it may be very tempting to get away from the path that has fared them so well till now. Senior executives must make sure they are not pulled into too many different directions, because that is distraction. And every distraction requires resources of all types.

“Distraction is a seed to decline in an organisation,” says Mattone. It is a reason why some organisations are around and others are not. And for Mattone, the remedy for executives who want to be great leaders, is astonishingly simple. “It is the disciplined pursuit of less that gives us more. If you look at people and organisations who are unbelievably successful, they do not stray too far away from what makes them great,” he points out.

Another factor that Mattone rates high in the ability to become a great leader, that is often missed by senior executives, is recognising the role that their inner value system can play. “There is a very high correlation between people who have a really strong inner core and great leadership,” he says. “Ultimately, what is in the inner core will spill to the outer core.” And the outer core is all about the behavior and skills that executives bring into their everyday world.

A vibrant and strong inner core will drive the ability of executives to compete and perform in the real

## CULTURE AND LEADERSHIP IMPORTANT IN DIGITAL ORGANISATIONS

- If you have a digital business model, but not the other part of the equation, it is not sustainable long term.
- Having high academic capability or IQ score does not automatically qualify anyone to become a great leader.
- If you are not accelerating leadership development of younger people, the model is not sustainable.
- A truly innovative organisation relies on thinking really big and is led by massive thinkers.

Great CEOs will not take the foot of the pedal, but how they push is variable



world and will bring them a notch closer towards becoming great leaders. Executives need to commit into making sure their inner core is strong and vibrant, which will drive their ability to perform, adapt and deliver. Getting executives to work on their inner core, where they have not been before, can literally ignite them to think about themselves in the organisation in a totally different way.

However, the inner core and outer core need to be optimised as well. By not embracing and not

optimising between the inner core and the outer core, there could be an element missing into becoming a great leader. Mattone points out that by helping executives to recognise the role played by their inner value system, they can move up the executive scoring system towards becoming great leaders.

Other challenges faced by executives on their journey towards becoming great leaders, noticed by Mattone, are overconfidence and unwillingness to receive feedback and ideas from everybody. “Executives need to recognise, it is okay to be open to receiving feedback from anyone,” he says.

### CULTURE AND LEADERSHIP IN DIGITAL ORGANISATIONS

The typical stereotype of a digital organisation is that by adopting a disruptive business model and a digital technology platform it is automatically endowed with a path breaking, hallmark organisational culture. But nothing could be further from the truth. Proactively, getting the right leadership in place, the right team, and the right culture, are equally important parts of the

equation. These important attributes are usually lost along the frantic journey to get investor funding in place and meet expectations of stakeholders, who may have a different game plan in my mind.

Mattone elaborates on the inside dynamics. “I see it as an equation. If you have a digital foundation and you do not have great leadership to sustain, foster, amplify, and bring people together to create a new vision for something that possibly does not even exist now, there is going to be stagnation in my opinion. If you have got a digital business model, but you do not have the other part of the equation, you might get by for a little while, but it is not sustainable long term.”

There exist innumerable technologies, technology products and services, as well as highly qualified and academically brilliant engineers and technologists, around the globe and in the region. The pace of innovation and obsolescence continues to be rapid and staggering in the post pandemic workplace.

The question is how many sustainable technology businesses are there or are being created at any point of time? Other than the C-suite executives, leadership development is critical at all levels of the organisation. This includes even the most brilliant of engineers and technologists. Having a high academic capability or IQ score does not automatically qualify anyone to become a great leader.

“If you are not accelerating the leadership development of younger people, who might be brilliant, you are not optimising the leadership, and the future leadership, and the model is not sustainable,” stresses Mattone.

Aspiring top executives and other senior executives, who see themselves as becoming great leaders, can learn much from Mattone’s experiences with leaders of global organisations. ■

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AI TO PROMOTE AI TO TARGET LOCAL RECOGNITION

**AI TO PROMOTE AI TO TARGET LOCAL RECOGNITION**

**DATA IN COLLABORATION**  
TO TRANSFORM OPERATIONAL

**SAUDI ARABIA**  
PARTNERING WITH AI TO MANAGE OPERATIONAL

**ITEL TRANSFORMING**  
SOLUTIONS TO MANAGE SUPPLY CHAIN

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THE CHANGE TO FUTURISTIC BUSINESS

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Top executives explore the future of organizations and the impact of digital technologies on leaders, teams, skills, roles, and culture.

# BUSINESS TRANSFORMATION

THE CHANGE TO FUTURISTIC BUSINESS

## ACHIEVING TRANSFORMATION THROUGH ENGINEERING SIMPLICITY

Driving business value through contextual intelligence, redefining customer experience, increased application speed, achieving new levels of productivity.

**BT 50**

# BUSINESS TRANSFORMATION

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## ARRIVAL OF THE DIGITAL FACTORIES

3D printing technology is transforming the production floor by offering additive and subtractive equipment as well as innovative printing substrates.

**ARISE CONSULTING**  
DIGITAL TRANSFORMATION FOR BUSINESS

**SAUDI ARABIA**  
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**INDIA**  
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## TRANSFORMING OIL AND GAS INDUSTRY

How the industry can leverage digital technologies like automation, analytics, data integration, blockchain to improve process efficiencies.

**INTEGRATION**  
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**ANALYTICS**  
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**DATA INTEGRATION**  
DIGITAL TRANSFORMATION FOR BUSINESS

**BLOCKCHAIN**  
DIGITAL TRANSFORMATION FOR BUSINESS

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## AI AND AUTOMATION TRANSFORMING BUSINESS MODELS AND USE CASES

Artificial intelligence and automation are being embedded in leading technologies boosting transformation of use cases and business models.

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## MANAGING THE PANDEMIC

Top executives recommend how best to use technology to manage the impact of the pandemic on day to day operations.

**COVID-19**

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## DRONES AUTOMATED MONITORING OF URBAN ENVIRONMENT

Artificial intelligence with IoT, computer vision monitoring, sensor, population, robotics, intelligence.

**MONITORING**  
DIGITAL TRANSFORMATION FOR BUSINESS

**URBAN ENVIRONMENT**  
DIGITAL TRANSFORMATION FOR BUSINESS

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## BUILDING TRANSFORMED ENTERPRISES AT THE EDGE

The edge of the network is closest to the digital customer, consolidating analytics in real time, while intelligently orchestrating with the core.

# BUSINESS TRANSFORMATION

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## TRANSFORMING REGIONAL AIRPORT MOVEMENTS

Using machine learning algorithms and integrating data from weather and traffic, airports can improve the overall passenger experience before an aircraft has left the ground.

**MAJOR AIRPORT DIGITALLY**  
ENHANCING OPERATIONAL EFFICIENCY

**TELECOMS AND AIRPORTS**  
ENHANCING OPERATIONAL EFFICIENCY

**EMIRATES AND TRANSFORMING**  
OPERATIONAL EFFICIENCY

**EMIRATES AND TRANSFORMING**  
OPERATIONAL EFFICIENCY

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**VISION 2030**

**National Transformation Program 2020**

## SAUDI ARABIA TRANSFORMATION AT FAST TRACK

Celebrating trailblazing transformation driven by CEOs.

**INTEGRATION**  
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**ANALYTICS**  
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**DATA INTEGRATION**  
DIGITAL TRANSFORMATION FOR BUSINESS

**BLOCKCHAIN**  
DIGITAL TRANSFORMATION FOR BUSINESS

# BUSINESS TRANSFORMATION

THE CHANGE TO FUTURISTIC BUSINESS

## UNIQUE CUSTOMER PROFILES ARE TRANSFORMING HOSPITALITY

By integrating data across diverse devices and business processes, guest preferences can be visible before they arrive.

**UNIQUE CUSTOMER PROFILES**  
DIGITAL TRANSFORMATION FOR BUSINESS

**TRANSFORMING HOSPITALITY**  
DIGITAL TRANSFORMATION FOR BUSINESS

# BUSINESS TRANSFORMATION

THE CHANGE TO FUTURISTIC BUSINESS

**SPECIAL ISSUE**

## OPPORTUNITIES, DISRUPTIONS, TRANSFORMATIONS

Twenty top executives give their comments on regional focus of transformation and their outlook for 2020.



Dmitry Doshaniy,  
NNTC



Greg Demchak,  
Bentley Systems



Saleh Al Nemer,  
HPE



Tabrez Shaikh,  
Proven Innovation  
Lab



Talal A G Shaikh,  
Heriot-Watt  
University

**AUGMENTED AND MIXED REALITY**

# USING VISUALISATION TO INTEGRATE REAL AND VIRTUAL WORLDS

Software development kits, availability of headsets, and mobile servers are driving innovation in the world of mobile visualisation. Top industry executives share their perspective.



DMITRY DOSHANIY,  
General Manager, NNTC.

**NNTC**

# BUSINESS CASE PRECEDES SELECTION OF TECHNOLOGY

It is necessary to first understand for whom the product is being made for and the requirement and then select the technologies to achieve the outcome.

**F**rom our experience with enterprise customers, most often, mixed reality products improve the training process when employees use virtual simulators to master their skills before real-life work. It is relevant to difficult and hazardous production facilities, like in the metallurgy, mining, oil and gas, or heavy engineering sectors, where any mistake may cost too much and beforehand drilling is of paramount importance.

Other use case is practicing soft skills – most often customer conversations. Augmented reality products are often used when

doing technical operations as virtual assistants. For instance, a tip function can be embedded into augmented reality glasses for employees to see real-time recommendations on how to repair and configure certain equipment or perform other field operations in the most effective manner. They can also have a live call with a remote support expert that will see exactly what is in front of the worker’s eyes

It is useful to emphasise two factors here:

- Focus on a business task
  - Focus on technology aspect
- The first means that we should

The developer community is growing but technology calls for synergy between market participants.

## KEY TAKEAWAYS

- We see sessions where developers and users can meet and openly discuss opportunities, bugs, trends.
- Augmented reality products are often used when doing technical operations as virtual assistants.
- Mixed reality and augmented reality technologies are most often used in 3D graphics.

clearly define the problems our customer wants to solve. Taking business needs into account is the key requirement when creating a product.

The second factor is of technical nature. Mixed reality and augmented reality technologies are most often used in 3D graphics. Computer graphics development should follow certain rules and standards. Let us say, 3D graphic usage in gaming and manufacturing differ, so will the approaches to task solution.

First, figure out whom you are making the product for and only then select the technologies and tools to achieve the outcome that will bring value to such end users.

Of course, the developer community is growing but ever-evolving technology calls for synergy between all market participants: vendors, systems integrators, and end users. We see increasingly more meetups, conferences and sessions where developers and users can meet and openly discuss opportunities, bugs, and industry trends in terms of both technology aspects and business needs.

It is crucial to involve all market participants in this dialog because this is the only way to create a truly effective product. ■



GREG DEMCHAK,  
Industry Solution Advisor,  
Construction, Bentley Systems.

**BENTLEY SYSTEMS**

# MIXED REALITY MUST CREATE VALUE, EFFICIENCY FOR TEAMS

Teams that use mixed and augmented reality must be able to derive meaningful benefits such as process efficiency and time and cost reduction.

**M**ixed reality is the perfect complement to digital twins because it brings data to the user in context. The two join forces to create a virtual simulation that is interactive and based on real-world project data. For example, a worker can get hands-free access to data about an asset using holographic projection of just about anything, from photos to PDFs, to 3D and 4D models.

With mixed reality, we can also support remote work scenarios, such as bridge and asset inspections using drone-captured reality data. The experience of conducting a bridge inspection from anywhere in the world opens the door to new ways of saving time, money, and reducing

risks to front-line workers. Teams that have the ability to see the virtual version of a structure in its actual location, thousands of miles from the site itself, is a complete game changer.

The key success factors for building applications using mixed reality and augmented reality are that they must create value for teams and simplify their digital processes. It really is that simple. For example, by using mixed reality, workers report that it takes 50% less time to conduct an inspection.

Teams are also discovering errors in their construction models prior to installation and are able to fix them accordingly. Being able to preemptively offset these types of

With mixed reality you can support remote work scenarios, such as bridge and asset inspections using drone-captured reality data.

## KEY TAKEAWAYS

- Mixed reality and augmented reality must create value for teams and simplify their digital processes.
- In the augmented reality space, Apple and Google have a strong presence and offer augmented reality SDKs.

errors can save teams millions and countless hours of work. We are starting to see a spike in requests from workers asking for more devices, and we should definitely see a doubling of device requests by next year.

We think this is a great way to entice talent into the construction and operations domain. The potential to radically change how projects are designed, constructed, and operated is on the table and mixed reality is an open platform for innovation. The possibilities are endless. We definitely believe vendors see this opportunity and are supporting its advancement.

Microsoft HoloLens2 is the primary driver in the mixed-reality space. HoloLens2 headset gives users an immersive experience where they can touch and move holograms – innovating how teams interact and manipulate information. The process differs from virtual reality, where users are detached from physical reality. In the construction industry, this gives teams a huge advantage to improve safety and productivity on the job site by being able to evaluate the situation given actual constraints on the site.

In the augmented reality space, Apple and Google have a strong presence and offer augmented reality SDKs that allow for experiences to be designed for mobile and tablet form factors. Apple is reportedly working on mixed reality glasses and Facebook owns Oculus, a manufacturer of virtual reality headsets and equipment.

We are also seeing that commercial and industrial sectors are adopting augmented and mixed reality first, and then they are gradually introduced into the consumer market. ■



SALEH AL NEMER,  
Chief Technology Officer, HPE.

**HPE**

## INDUSTRIAL APPLICATIONS DRIVING MIXED REALITY DEVELOPMENT

Reality applications are being implemented in industrial plants, where live video feed overlays electrical and plumbing for safer and more precise work.

**A**ugmented reality has been used and proved its efficiency in various growing sectors, from education to healthcare. Today we see many organisations use augmented reality, virtual reality and even mixed reality in manufacturing, automotive, energy, retail, aeronautics, construction, and oil and gas industries to accomplish specific production, maintenance, and training tasks.

Industrial augmented reality is mainly focused on guided assembly, operators who wear hands-free, heads-up displays, who can see step-by-step instructions overlaid on their field of view. We also see industrial augmented reality being used for training purposes, where employers can deliver training in the work environment through hands-free or heads up displays.

Remote maintenance and repair are also key areas that are using industrial augmented reality, as staff

can provide live video to remote experts to troubleshoot problems and provide targeted feedback. Augmented reality also helps engineers and operators quickly compare manufactured output to design specs, and verify the right parts are being used and correctly assembled.

We have also started to see augmented reality being implemented in industrial facilities infrastructure, where live video feed overlays electrical, plumbing, and network infrastructure located behind walls, ceilings, and floors for safer and more precise design and remodeling work. Virtual site inspections reduce the number of physical visits to monitor progress.

The enablement of augmented reality, virtual reality, mixed reality requires many elements but the key ones are the software stack or the use case by itself where the goals will drive the subsequent components.

Developing a community of developers is a key element for this promising field.

For example, the Edge computing must be implemented, as it will allow to process aspects in real time and on site and this can be achieved with HPE Edge-line portfolio.

Another component is the artificial intelligence driven storage platform as it will allow the system to maintain the right performance and this can be achieved by HPE Primera and HPE Nimble.

Also, in order to enable augmented reality, virtual reality, mixed reality an intelligent driven infrastructure must be implemented, in addition to a secure network, not to forget the application containerisation which can be achieved through HPE Ezmeral software portfolio that simplify the needed application resources One Touch away.

Augmented reality, virtual reality, mixed reality is still in early steps and the technology is still evolving. Developing a community of developers is a key element for this promising field. Today, software vendors that are working with augmented reality, virtual reality, mixed reality are working on establishing such network based on challenging use cases where augmented reality, virtual reality, mixed reality will be great deal of help to the community.

HPE has introduced Visual Remote Guidance, which is a secure, enterprise-ready collaboration solution which aims to boost productivity, increase efficiency, and decrease costs for organisations by using live visually guided interactive sessions with extended teams. VRG enables phones, tablets, and hands-free wearable devices to connect via 3, 4G or WI-FI, to the enterprise. ■



TABREZ SHAIKH,  
Director Technology & Innovation,  
Proven Innovation Lab.

PROVEN INNOVATION LAB

# INTEGRATING THE REAL WORLD AND THE VIRTUAL WORLD

It is crucial to make the experience feel natural for the users, devoid of motion sickness for mixed reality or weight for augmented reality.

**A**ugmented reality and mixed reality are two technologies that have been growing over the last few years. Industry verticals such as healthcare, education, manufacturing, construction to name some have been seeing an increased uptake of these technologies. Some of the augmented reality and mixed reality products that are available in the market are Microsoft HoloLens 2, Nreal Light, Magic Leap One, Unreal Engine, Unity Engine, AjnaLens and Jio Glasses to name some.

A few primary use cases of augmented reality applications include game development, education, engineering industry, corporate automation and medical science. Augmented reality is used

as a primary tool in education, as currently students use it to learn biology or crack some difficult mechanical engineering problems.

In terms of the engineering industry, prominent applications like Vuforia Chalk are currently being used by industry professionals to train to their employees. Augmented reality applications now serve as measurement tools for many engineers and carpenters out there, because of augmented reality's depth sensing abilities.

In terms of navigation, it is being used for indoor navigation, which helps in guiding their customers and improves the overall crowd control efficiency in large scale malls.

Mixed reality is currently being

Mixed reality is being used by medical professionals in assessing their approach towards complex surgical operations.

Mixed reality requires an enclosed area, along with tethered headsets such as HoloLens.

used by medical professionals in assessing their approach towards complex surgical operations. This helps in lowering the amount of risk and pressure associated with every operation. It also serves as an education platform for medical students to understand the depths of the human body.

Augmented reality is completely free from any kind of dependents, it adds more information to the current real world, usable anywhere anytime. Mixed reality requires an enclosed area, along with tethered headsets such as HoloLens.

Fortunately for developers there is an ocean of applications or use cases for augmented reality, as a general-purpose computing device today. With mixed reality, it has the capability of switching between augmented reality and virtual reality on the same device or even enhancing the experience further by making virtual objects appear real in the daylight.

Augmented reality and mixed reality are mass consumer technologies, usually used for longer periods of time, thus it poses quite the challenge for both augmented reality and mixed reality. Augmented reality is affordable, it is accessed through ARcore supported phones, whereas mixed reality comes at a hefty price. Affordability helps in the ease of access to the wider community.

Vendors are continuously supporting Unity and HoloLens development especially HoloLens and Magic Leap, which have a very prominent developer community. Nreal Light is growing as well. They back developers with documentation as well as constant one to one chat forums. Unity has an enterprise level scaled knowledge database and a very active and prominent developer community as compared to Unreal. ■



TALAL A G SHAIKH,  
Director of Undergraduate Studies and Programme Director,  
Software Engineering, School of Mathematical and Computer  
Sciences, Heriot-Watt University Dubai.

## HERIOT-WATT UNIVERSITY

# MOVING FROM MOBILE COMPUTING TO SPATIAL COMPUTING

A constraint developers face is evolution of software, making it difficult to keep up with developments as we move from mobile to spatial computing.

**A**ugmented Reality is the use of computer technology to overlay digital objects such as images, 3D models, videos, and animations on top of a physical, real-world environment which helps create rich, interactive experiences. In simple words, augmented reality enhances the real world with digital objects.

Augmented reality can be displayed on various hardware devices such as screens, mobile phones, head-mounted displays and smart glasses which include spectacles by Snapchat and Google Glass. Augmented reality utilises technologies like SLAM, simultaneous localisation and mapping and depth tracking, a sensor data calculating the distance to the objects.

Mixed Reality is a combination of virtual reality and augmented reality, which helps create an environment where both physical and virtual

elements can exist and interact in real-time. The digital content in mixed reality is spatially aware and responsive. It works by adding virtual digital content to the real world or by adding elements of the real world into the virtual digital one.

Mixed reality depends on an interaction between headset hardware, mixed reality software and digital content on cloud-based servers. Popular mixed reality hardware devices include Magic Leap, Meta 2 and Microsoft HoloLens.

With the constant evolution of immersive technologies, augmented reality and mixed reality-endowed products are already making great strides in wide array of industries such as construction, oil and gas, defence, automotive, education, healthcare, gaming, live events, and retail.

One of the greatest examples of augmented reality applications has

One of the greatest examples of augmented reality applications has to be Pokémon GO.

to be Pokémon GO – the game that took the world by storm in 2017 as it allows players to catch their favorite Pokémon characters by looking through their smartphones at the real world, but with superimposed visuals.

In the retail world, IKEA set the precedent with its augmented reality-based app which allows shoppers to visualise how each item of furniture will look like once they place the virtual version onto their living spaces. The goal of IKEA's augmented reality-aided experience is to help customers make informed purchasing decisions that make them feel happier and more satisfied – an ingenious customer loyalty masterstroke.

Hospitals and other healthcare facilities are recruiting augmented reality diagnostic tools to enable healthcare providers visually communicate new or complex treatments to patients. Augmented reality can also show how new drugs and medical devices interact with the body, and is going to become more indispensable to surgeons and critical healthcare providers in the years to come.

As mixed reality, becomes more accessible, the technology is seeing more applications in industries such as education, automotive and construction. For instance, car manufacturer Ford is using Microsoft HoloLens mixed reality headset to prototype vehicles which allows for rapid prototyping in a virtual environment, instead of having to create new physical models to see what new materials and angles will look like on a final design, therefore reducing the time and cost

# ADVERSARIAL ATTACKS AND HUMAN-AI DEFENCE TEAMS

Analyst-AI teams provide faster, more thorough cyber defence than either the analyst or the AI could alone, explains Vectra's Christopher Thissen.



CHRISTOPHER  
THISSEN, Data  
Scientist, Vectra.

Despite the astonishing advances in AI performance over the past few years, no AI is perfect.

Despite the astonishing advances in AI performance over the past few years, no AI is perfect. In fact, an AI's imperfection is usually made explicit by measuring the model's accuracy on a test dataset; perfect scores are neither expected nor common. Problematically, AIs also make mistakes in ways not captured by tests. The most famous examples use imperceptible changes to create surprising image labelling errors.

Even highly sophisticated AI's capable of defeating professional human players in complex games like DoTA II and StarCraft II have later to been shown to have vulnerabilities exploitable by less-skilled human players. In the cyber domain, Skylight Cyber recently circumvented an AI malware detector by appending strings to known malicious binaries. Troublingly, this method worked for every malicious binary they tested.

These examples fall under a nascent machine learning field called adversarial attacks, defined as inputs to machine learning models that an attacker has intentionally designed to cause the model to make a mistake. There are two broad responses to adversarial attacks:

- Increase an AI's robustness to adversarial examples
- Supplement AIs using defence in depth

One intriguing idea is that some human skills complement those of the AI, and that human-AI teams

provide advantages over either entity alone.

In his book *Average is Over*, Tyler Cowan documents the early success of human-AI teams in freestyle chess. In this time-limited version of the game, human-AI teams initially dominated teams comprising only AIs or only humans even against opponents that were individually much better players. In the most successful teams, the human players used intimate knowledge of their AI teammates to guide computation and exploit weaknesses. Human grandmasters, in contrast, relied more on their own knowledge and lost by failing to leverage their AIs effectively. The winning edge in these tournaments was an intuitive and rapid ability to train and corral AI teammates.

Although interest in freestyle chess has waned as AI's have become more powerful, interest in developing human-AI teams in more complex domains continues to grow. As a simple example, a human would clearly recognise the differences among the adversarial examples in Figure 2, but to an AI all the images may appear equally different from the original for the given distance metric.

A human would be able to correct the labelling errors, though then the trick is to identify which examples need corrections. In these examples, a human provides complementary skills, but the caveat here being that it is possible to construct adversarial

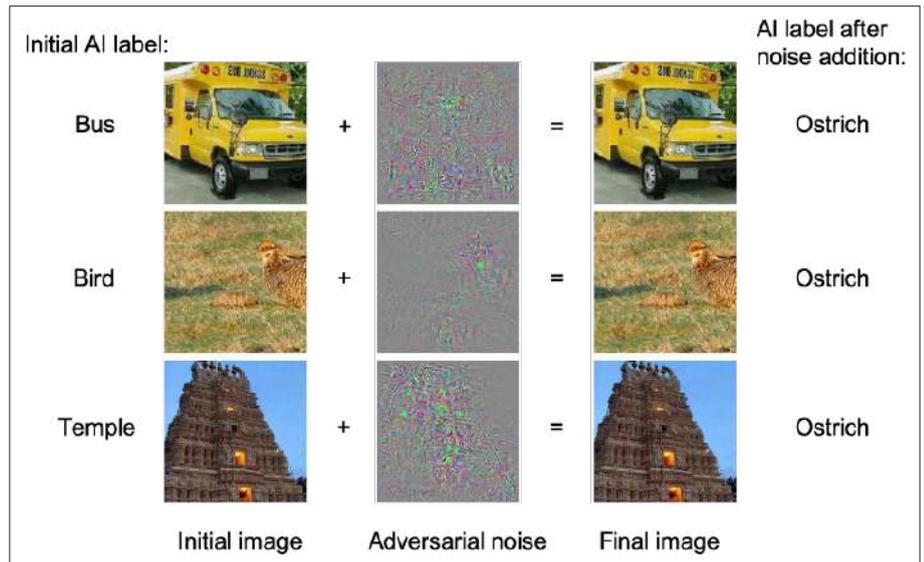
### KEY TAKEAWAYS

- Adversarial attacks are inputs to machine learning models that an attacker has intentionally designed to cause the model to make a mistake.
- Some human skills complement those of the AI, and that human-AI teams provide advantages over either entity alone.
- The winning edge is an intuitive and rapid ability to train and corral AI teammates.

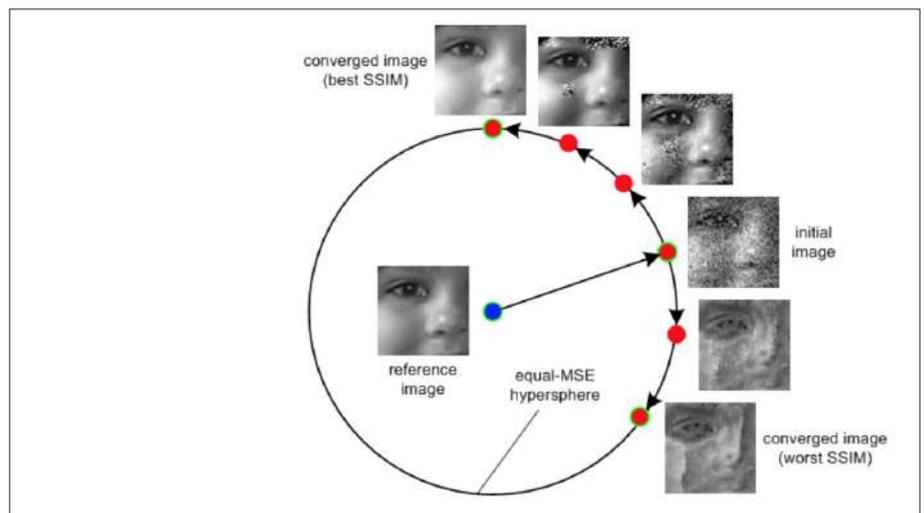
images that fool both humans and AIs.

More interesting, perhaps, are the advances that are only possible when humans and AIs collaborate in new ways. It is still unclear exactly how such collaborations would manifest or what capabilities they might unlock, but provocative examples are starting to materialise in other domains. Autodesk, for example, recently developed a new racecar chassis using a human-AI design team. Dubbed the Hack Rod, the team used data collected by an expert racing team in California’s Mojave Desert, including detailed stresses on the car collected from over 200 sensors, and a 3D model of the terrane. A team of human designers and generative AI’s used the data to design a new, optimised chassis that differs dramatically from conventional designs.

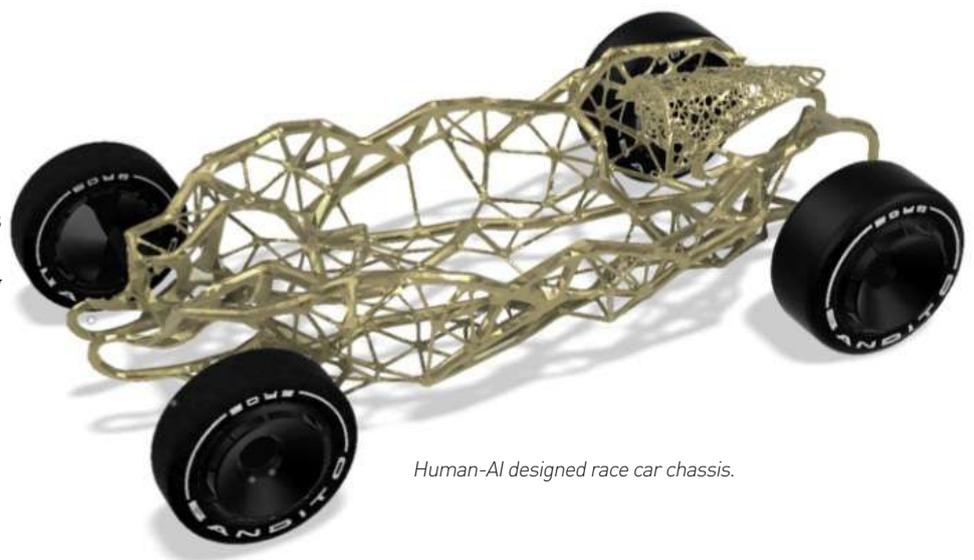
In the cyber domain, the Skylight Cyber example and red team exercises in general provide crucial feedback on vulnerabilities and gaps in AI capabilities. It is essential that teams of data scientists and security researchers train the AIs, and SOC teams wield these AIs to analyse the enormous volumes of data typical of enterprise networks and cloud environments. Together, these analyst-AI teams provide faster, more thorough cyber defence than either the analyst or the AI could provide on its own. ■



AI labels before and after adversarial noise is added to the image.



Images that appear substantially different to humans can be the same MSE distance from the original.



Human-AI designed race car chassis.

# HOW TO MANAGE BUSINESS COSTS AND STAY LEAN

Currently, business owners are operating in survival mode, while reviewing their cost base at a microscopic level, says Pramod Dhalwani of IFC Group.



PRAMOD DHALWANI,  
CEO and Founder, IFC Group.

Investors and venture capitalists use burn rate as one of the key metrics.

There are certain world events, which take place in humanity's history, which shape it and alter it. The 2008-09 recession impacted the banking industry, resulting in Basel III being implemented. In the GCC, the bank credit policies were completely overhauled.

With the current pandemic, business owners are operating in survival mode, while reviewing their cost base at a microscopic level. On the contrary and during a period of economic stability, business owners are usually more relaxed about costs and take actions as required for cost management rather than applying it as a business process.

This is different for start-ups and high growth companies, where the burn rate is an important metric to measure the sustainability and influence funding.

The Corporate Finance Institute defines calculating the Gross Burn Rate and Net Burn Rate as below

- Gross Burn Rate equals cash divided by monthly operating expenses
- Net Burn Rate equals cash divided by monthly operating losses

Cost is a large contributor to both metrics as cash is required to pay for expenses and if unchecked, can result in a business running out of cash. Investors and venture capitalists use burn rate as one of the key metrics in deciding the amount

of funding to be provided.

According to CB Insights report published in 2019, 29% of start-ups fail due to running out of cash and 18% due to pricing or cost issues.

Managing cost is a process which business owners must implement throughout the business cycle. A simple acronym for this process, developed from my 28 years of research and practical application, is PAIR, also defined as Plan, Assign Accountability, Inspection Rhythm and Revise.

## PLAN

There are three types of costs that businesses incur:

Cost of sale, which are direct costs related to producing goods or service for sale. Managing this improves gross profit.

Opex, which are operational costs like rent, support staff etc. Managing this improves net profit.

Capex which are capital expenditure like purchase of machinery for production, IT equipment, etc. Managing this ensures a better ROI.

There are two ways of managing costs, planned and ad-hoc. The planned approach complexity depends on the size of business and can be created either on a spreadsheet or budgeting software. As an SME, the use of a spreadsheet is sufficient for the purpose.

Managing cost is a process which business owners must implement throughout the business cycle.

A robust accounting process should be implemented to inspect and capture costs to provide accurate and timely data.

Adopt a process-driven approach; build flexibility within the cost base and create a lean culture.

#### ASSIGN ACCOUNTABILITY

This is the execution step. Based on the experience of working with SMEs across the globe, many businesses create a plan that is filed away, rather than used as a reference point for accountability.

Every single line item in the planned expenditure, be it Capex or Opex, should be allocated to an individual with accountability defined. The metrics set should be based on the nature of the cost. For example, software subscription costs limit can be set per employee or company-wide depending on the type of business.

#### INSPECTION RHYTHM

A robust accounting process should be implemented to inspect and capture costs to provide accurate and timely data. This data should be available to the person accountable so that they can inspect it at any time to ensure compliance with the plan.

The costs within the business are interdependent, making it

imperative for a collective inspection rhythm to ensure costs are on track. The impact in total of the variation needs to be reviewed to ensure that overall costs are also managed, not just the individual elements.

Adopting the lean mindset can generate significant savings by eliminating waste and thereby reduce costs. Every business from startup to large corporates have some form of wastage. If a certain manufacturing process does not have a zero-error rate, there are costs associated with reproducing or correcting the errors. By eliminating errors, business can manage and reduce cost. One of the recommended books for reading is 2 Second Lean: How to Grow People and Build a Fun Lean Culture by Paul Akers.

#### REVISE

We live in a dynamic world where the speed of change is at an accelerated pace. This step allows the business owners to review their progress to date, re-validate the original assumption identified at the planning stage and then course correct, as necessary.

Firstly, identify the variances between actual and budget and then prepare a revised forecast. For example, forecasts prepared in May needs to include April actuals and estimates from May to December based on revised assumptions.

For successfully managing business costs to stay lean, it is recommended that every business owner, whether in crisis or not, execute the PAIR Methodology sequentially, whilst keeping the three ABCs in mind: Adopt a process-driven approach; build flexibility within the cost base and create a lean culture. ■

# CYBERSECURITY FOR YOUR DIGITAL TRANSFORMATION

The growing connectivity of everything presents challenges on the security front, warns Meraj Mohammed of Schneider Electric.



MERAJ MOHAMMED, Senior Cybersecurity Consultant, Schneider Electric.

As the world adjusts to the next normal, the importance of all things digital has never been made clearer. To keep the basics of our society running, from power and water services to online shopping, telemedicine, remote learning and entertainment, digital touchpoints provide vital help in coping with everyday life and mitigate some of the impact current crises have on people's daily lives. Subsequently, the coronavirus pandemic has accelerated the scaling up of

technology both in the public and private sectors. In a world where lockdowns have become the norm, digital is the strategy. However, the growing connectivity of everything presents challenges on the security front.

Cybersecurity threats, defined as an ill-intentioned act to damage or steal data and disrupt operations, are on the rise, everywhere. The UAE's Telecommunications Regulatory Authority recorded 200 cyberattacks between January and September 2019. It's fair to say that cybercrime is one of the fastest growing businesses right now.

In the rush to digital, cybersecurity must not be an afterthought. That is because every new connection, every newly connected device is a potential entry point for bad actors. Operations can become more vulnerable as large numbers of employees work remotely. The main challenge IT and OT leaders are facing right now is to maintain a balance between business needs and keep their organisations safe from threats while ensuring business continuity. So that means when a company sets off on its digital transformation, cybersecurity can't be an afterthought. There's too much at stake for them, financially and operationally. Implementing the technology that will converge their IT and OT demands rethinking their approach to cybersecurity.

Here are some steps of a cybersecurity journey, IT and OT and

business leaders should be adopting:

## SECURE YOUR DIGITAL ECOSYSTEM

Understanding digital risk means looking well beyond a sole connected object or database. IT and OT and business leaders must review all the potential risks across the extended digital enterprise, which includes the supply chain and partners. They then have to craft and communicate a digital risk strategy that will be understood by management. We recommend the five-part cybersecurity framework developed by the National Institute of Standards and Technology, which helps organisations identify, protect, detect, respond and recover from threats.

## ESTABLISH END-TO-END CYBERSECURITY PRACTICES

Cybersecurity is not just about your hardware and software. The best approaches with mitigating digital risk take into account people, processes and technologies. As part of putting together a cybersecurity strategy, organisations must begin with identifying risks across this extended enterprise. Take the time to understand where the greatest potential risks are, and what impact any unaddressed vulnerabilities will have on your business. Ensure your suppliers understand and comply with your security policies.

## KEY TAKEAWAYS

- Digital touchpoints provide vital help in coping with everyday life and mitigate some of the impact current crises.
- The coronavirus pandemic has accelerated the scaling up of technology both in the public and private sectors.
- In the rush to digital, cybersecurity must not be an afterthought.
- Understanding digital risk means looking well beyond a sole connected object or database.
- The best approaches with mitigating digital risk take into account people, processes and technologies.
- Rapid response plans will help limit the damage caused by a cyber-attack.
- Adopt a process-driven approach; build flexibility within the cost base and create a lean culture.

Leaders must learn as much from the incident as possible to ensure that future risks are mitigated.

## STRENGTHEN YOUR CYBERSECURITY CULTURE

As cyber threats proliferate, a secure approach is a vital element in an enterprise's ability to keep critical infrastructure safe. Knowing where your systems are vulnerable is the first step to protecting them. It is also important to empower your staff, the first and last line of defence, with a comprehensive industrial cybersecurity training. A clear roadmap and an action plan designates the right people, processes and technologies to bridge the gaps.

## DETECT AND RESPOND IN REAL TIME

Whilst the focus is on digital transformation, organisations must remember to ramp up their detect-and-respond strategy to be able to counterattack breaches and threats in real time. Technology today allows organisations to monitor threats 24 by 7, which helps them to anticipate and reduce their impact. organisations must look to adopt tools such as Security Incident and Event Management Systems to monitor threats in real-time. As organisations pivot to the Internet of Things and increase the number of connected devices in their networks, they should consider including anomaly detection technology to flag anomalous behaviour. Rapid response plans will help limit the damage caused by a cyber-attack and help protect your people and assets.

## RECOVER AND SHARE LESSONS LEARNED

An incident will occur, and leaders must learn as much from the incident as possible to ensure that future risks are mitigated. Organisations need to put together recovery plans that will include processes to mitigate the cause of the breach, minimise its impact, and outline steps the organisation must take to get back up and running as safely, securely, and quickly as possible. One of our key learnings is the need to have everyone in the organisation both aware of threats and what they need to do about them. Given that about 90% of malware is still delivered by email, do your people know how to handle online risks?

## SECURE YOUR DIGITAL TRANSFORMATION

Today, nearly every industrial firm worldwide wants to use digital technologies such as Augmented Reality and predictive maintenance to improve efficiencies and reduce costs. They are incorporating smart devices that are connected to the internet. This digital transformation journey will need a new approach to cybersecurity. organisations will need to rethink their approach, with consistent and holistic security updates across devices. IT and OT leaders will need to look beyond their own networks towards risks throughout their entire supply chain.

Cybersecurity will always be a challenge for organisations and it will become increasingly more difficult as digital transformation accelerates and cyber criminals attempt to exploit weaknesses and actively target the growing networks of connected devices. It is time to prioritise developing and implementing a holistic, dynamic cybersecurity strategy that can help you identify, reduce and mitigate threats across the operations lifecycle. se and create a lean culture. ■

# EVOLUTION OF LEADERSHIP IN THE POST-COVID ERA

Leadership is bound to transform radically in the near future with the balancing of short-term business needs and long-term vision and strategies, says Ektaa Sibal.



*EKTAA SIBAL is an International Inner Self, Transformation Specialist and an International Meditation Expert, Speaker and a Gifted Energy Healer with inborn intuitive abilities.*

The world is on the cusp of the greatest period of transformation where the global leaders, whether in the professional arena or the political arena, have to embrace a new way of thinking and working. This shift in mindset is what will help leaders to harness the brilliance to drive change and transformation to build resilient and future focused practices.

What does this mean for the evolution of leadership in future? While leaders are supposed to have all the key traits and skills required for running and leading the organisations, it's imperative that they possess some additional aspects which are required to transform the organisational setup.

Leadership is bound to transform radically in the near future, balancing the short-term needs of the business with long-term vision and strategies. Currently, all leaders are trying to ascertain the temporary effects of the pandemic on the business and the impact which have caused complete business shift. In an effort to manage the long term

impact, leaders are compelled to find ways to make the organisation not just adapt the new normal but also thrive in it.

So what are the mantras an executive leader can follow to be ready to face the challenges of the future and thrive in the new normal?

The future skillset: Innovative, adaptive and collaborative

In the current times, the changing landscape means executive leaders need to adapt and find innovative ways to take advantage of their own skills and abilities. These innovative ways were previously not considered crucial however now they have gained attention and value such as incorporating meditation as a practice in the workplace to bring forth hidden capabilities and skills.

Future leaders will need to be both more open to new ideas and aware of their own limitations so as to collaborate with their teams in out of the box activities that will uncover innovative ways to create a safe space to express curiosity and encourage teams to think beyond what is currently out there.

Compassion, empathy and respect

Exceptional executive leadership needs to be driven by factors such as compassion, kindness, being empathetic and displaying respect. Here, self-regulation is the key, as a leader who is or has gone through a challenging time will need to show up at his or her best for others. It is

Future leadership requires creating a culture of wellness in the organisation.

## KEY TAKEAWAYS

- A shift in mindset is what will help leaders to harness the brilliance to drive change and transformation to build resilient and future focused practices.
- Leaders are compelled to find ways to make the organisation not just adapt the new normal but also thrive in it.
- Future leaders will need to be more open to new ideas so as to collaborate with their teams in out of the box activities.
- Exceptional executive leadership needs to be driven by factors such as compassion, kindness, being empathetic and displaying respect.

vital for leaders to share perspectives with their members about the fact that we all have gone through our own personal crisis and have come out of it so there is nothing that can break us. Such words with real meaning can give your team the right amount of hope for a better tomorrow. Check your ego as it is not just about you but also about your team so collaborate and work together with your team.

Express care by listening in and checking in with your team to understand each person's situation and need. Start meetings with a personal touch. Bringing appropriate humour to your conversations as levity is the key to strengthen the bond that the leaders of the future can build upon.

Resilience and adversity quotient

Presently, people are searching for meaning in the time of crisis more than any other time. While many are overthinking and it's become extremely noisy right now inside their heads; hence people need clarity on what is most important. As a leader, one needs to bring it back to what matters most. Future leadership requires creating a culture of wellness in the organisation. Mental health is what matters most. To be ready for any adversity, it calls for us to create inner strength in each member of the team so that we can build resilience not just to cope

up with the current situation but be ready for whatever comes in front of us. Future leadership will not only be about putting out fire with a reactive approach but it will compel the leaders to prepare their team to be equipped, empowered and prepared in the most proactive manner.

Future leaders must insist on building wellness culture in the organisation by incorporating regular talks on mental wellbeing, mind strengthening, activities that incorporate meditation as a practice and much more. Such actions will accentuate the adversity quotient of individuals and enhance the spiritual quotient of leaders which will build resilience. The leader's resilience must be made as a way of living so that members can learn and incorporate into their lifestyle.

To conclude, as the new normal becomes apparent, the clarity of what it means to lead others in future will evolve. A pragmatic and a proactive outlook of leadership through transformative times will seem especially relevant. In the approaching times we will have a choice. Will we regress back to old ways of leadership, or will we become conscious about forming new positive leadership habits? I'm here reminded of Marshall Goldsmith's axiom: "What got you here won't get you there."

This is a thought to ponder over. ■

Express care by listening in and checking in with your team to understand each person's situation and need.



# BOEING'S NEW UV WAND

Boeing's UV wand is an emerging innovation that supports multiple layers of protection to disinfect the inside of an airplane. UV light can be scanned inches away from aircraft interior surfaces. UV light has been shown to be effective at neutralising pathogens.



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“A New Normal of Technology,  
Business & Networking Events ”



## 90 DAYS MILESTONES

62+  
SESSIONS

6000+  
C-SUITE ATTENDEES FROM  
32 COUNTRIES

100+  
INTERNATIONAL AND  
TOP INDUSTRY LEADERS.

PARTICIPATION  
OF OVER  
31+  
COUNTRIES



89%  
ENGAGED AUDIENCE

OVER  
55  
SATISFIED PARTNERS  
AND SPONSORS

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VENDORS | ACADEMICIANS AND INVESTORS

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