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While Every journey that we undertake inspires us to become someone better, some journeys become a legend and inspire others... and more importantly some journeys inspire our own for generations to come.

"I want to inspire people. I want someone to look at me and say, "because of you I didn't give up."

Publishing your journeys that inspire those to come, for generations that are going to come

Corporate Investment Times

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FOSTERING ECONOMIC DIPLOMACY THROUGH GLOBAL BUSINESS



The Abrahamic Business Circle was originally formed from the idea of The Abrahamic Family House. Then later it became a reality when it was founded in parallel with the signing of the Abraham Accords Agreement mid of September 2020 in Washington DC between Israel, UAE and Bahrain. Which was followed after by Morocco and Sudan.

It means that the normalization of the relations between formerly hostile Arab countries and Israel is increasingly taking hold. Those accords are the building blocks for a lasting pacification of countries which were mired in mutually dislike for most of their past.

However, it is the deep conviction of the founders of The Circle and their members that peace can only thrive if economic prosperity comes along with normalization.

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STARTUP CAPITAL

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H.E. DR. DR. H.C. RAPHAEL NAGEL



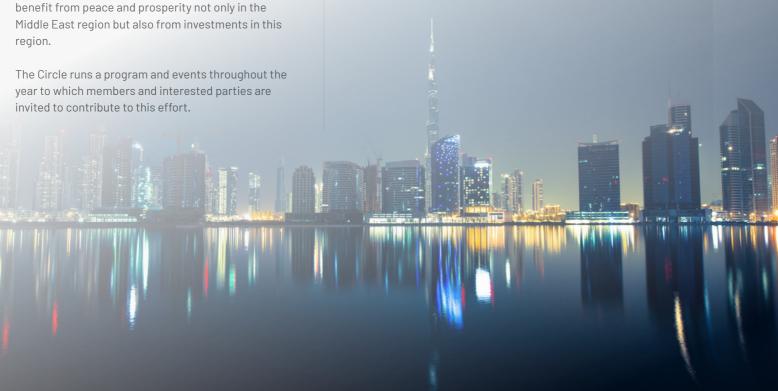
The Abrahamic Business Circle is an association of highprofile individuals across the globe that have a shared vision of tolerance, prosperity and peace under the Patronage of His Highness Sheikh Juma Bin Maktoum Juma Al Maktoum.

The Circle's members share a commitment toward tolerance, the promotion of intercultural dialogue, the belief that economic prosperity is the foundation for peace, and an active contribution toward the success of the Circle.

The Circle is deeply convinced that this new effort for peace in the middle east requires the involvement of other nations as well. It is in their interest to support and contribute to this historical peace effort.

- The Circle aspires to establish a business platform as well as platform for dialogue and exchange of business related views.
- The Circle wants to stimulate trade and deals among the nations and business leaders involved.
- The Circle also reaches out to involve other regions like Asia, Africa, Europe and USA since they will truly benefit from peace and prosperity not only in the Middle East region but also from investments in this

THE ABRAHAMIC **BUSINESS CIRCLE IS** A GLOBAL BUSINESS **NETWORKING ORGANIZATION** THAT IS APOLITICAL AND ARELIGIOUS.



H.E. DR. DR. H.C. RAPHAEL NAGEL

A man of his time, Dr. Raphael Nagel is a renowned investor, a lobbyist and a philanthropist. In 2021, he has received more than 20 awards and recognitions for his outstanding work in Economic Diplomacy and his Philanthropy in Education worldwide. He has been chosen as one of the most inspiring business leaders of the year by Forbes Magazine.

In 2020, he was awarded by the Indian financial magazine Business APAC as one of the leading Investment Gurus of the said year. Besides, he was also awarded a prize by the Business Worldwide Magazine (BWM) CEO Awards as the UAE's Financial Services CEO of the current year.



interfaith business dialogue platform based in the United Arab Emirates.

Before devoting himself to business and entrepreneurship, Mr. Nagel's academic background in Economics and Law has been forged in university centers in Germany, the United Kingdom, and Spain.

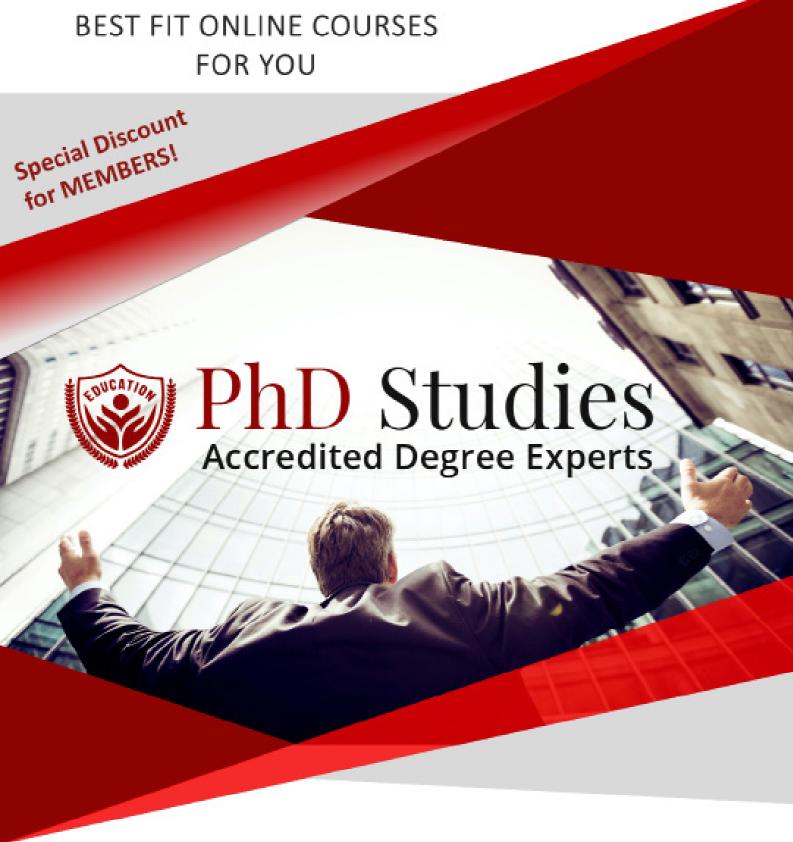
Amongst other relevant activities, he is an active member of the Scientific Committee of the Chair in Security at the Andorra's Universitat Europea. Additionally, he was the co-founder of a Spanish investment bank specialized on cross-border transactions and debt restructuring. In 2016, he went above and beyond the call of duty to help others and he founded a Charity Trust in order to combat the social exclusion caused by over-indebtedness and give support to basic overall financial education and awareness.

Despite is many occupations, he found the time to author and edit several books on highly relevant issues such as Economics and Geopolitics.

Over the years, Dr. Nagel has been an energetic member of various important working groups as well as Senior Advisor to major companies and Royal Families, both within and beyond Europe. Highly reputed as an Independent Consultant on Economic Policy, throughout his long career he has advised a number of public bodies and Governments all over the world always aiming towards global excellence.







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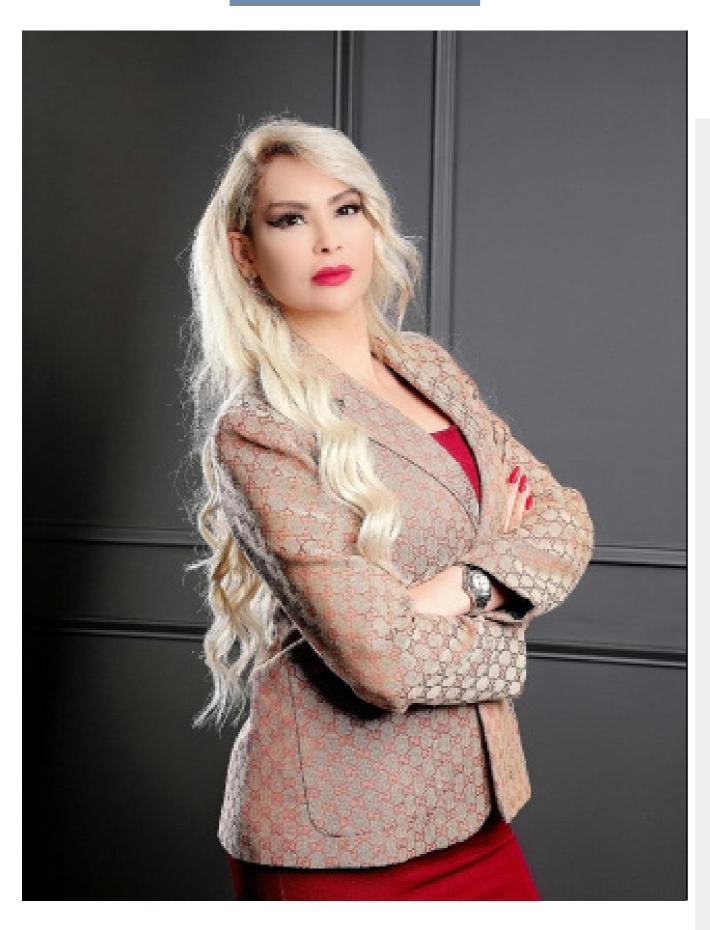
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TRENDING.



MALAK TRABELSI LOEB

The UAE economy continues to thrive, thanks to the leaders' long-term vision and strategic foresight. The country has become one of the most attractive hosts to foreign investors due to its economic diversification characterized by technological transformation and the growth of its digital economy across all sectors.

As per the UAE Central Bank Quarterly Economic Review, First Quarter 2020 Report, the UAE economy is leading the GCC region in its economic diversification, with 70.2% of its GDP from non-oil sectors. To steer its nation toward the Centennial Plan 2071, the long-term government plan is designed to make the UAE one of the leading world economic powers, by which the space domain plays an essential role.

Ph.D. Candidate
CEO At Trabelsi Loeb Legal Consultants
CEO At Vernewell Space and Tech.
International Business Law and
NewSpace
Serial Entrepreneur

Tech Transfer & Business Advisor

Investor

INVESTING IN THE NEWSPACE RISING ECONOMY

In fact, space would enable the envisioned national strategies, including the Fourth Industrial Revolution Strategy, the Emirates Blockchain Strategy 2021, and the UAE Strategy For Artificial Intelligence 2017-203. As the UAE is the NewSpace rising star with a great determination to be one of the most important key players within the global space ecosystem, foreign investors are welcomed to take a role in its revolutionary development. Here are several key reasons why the UAE is an ideal host to foreign investors targeting commercial space activities.

Investing in a foreign economy involves careful due diligence and analysis of the political, economic, and

WHY THE UAE IS
AN IDEAL HOST
STATE TO FOREIGN
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TARGETING
COMMERCIAL
SPACE ACTIVITIES

business risks that may result in unexpected losses. Thus, at the outset of any international investment, foreign investors consider vital factors, including the host state's political stability, its Foreign Direct Investment (FDI) regime, the taxation system, accounting treatment, the applicable laws to the envisioned activities and the judiciary system among others. The political stability of the host state is at the top of the list to address.

It is not surprising that foreign investors flee countries with high political risks to spare the disruption of their business operations by wars, strikes, terrorism, or by actions of the host state's political or governmental institutions. The latter encompasses direct or creeping expropriation restriction on the expatriation or conversion of the local currency or changes in the host state's fiscal, regulatory or judicial system to take advantage of the foreign investors' favorable results within a given sector. That is not the case for the UAE, as the country's political and economic stability has long attracted foreign investors, especially investors fleeing from lesser stable home countries. Such a position was reinforced by the excellent management of the health crisis caused by the Covid-19 pandemic. In a tweet on May 2021, His Highness Sheikh Mohammed Bin Rashid revealed that despite the decrease in the FDI flows globally, the UAE FDI inflow increased by 44% in 2020 compared to the prior year. The country's political stability and economic attractiveness are managed and maintained through long-term strategies and standardized visions, cooperation between the emirates, government transparency, and institutional efficiency.

Furthermore, foreign investors address the factors related to the host country's favorability depending on the type of investment, targeted activities, type of companies involved, and the reasons for the operation. It is essential to identify if the foreign investor is aiming for a greenfield investment or a brownfield investment, conflict of laws rules, and the applicability of international treaties between the host and investor states on the FDI transaction that prescribe essential clauses, including a most favored nation treatment, and limits on expropriation and adequate compensation clauses.

Setting up a new company in a host state varies from purchasing an existing company by means of acquisition or merger or expanding the operation in the home state, among other scenarios. It is always essential to address the foreign investor's ownership limitation in the host state and the associated degree of FDI liberalization. FDI inflow into the UAE has been progressively liberalized with ease in processes and procedures. The UAE has promulgated legislative reforms before and after the UAE Federal Law No. 19 of 2018 (the FDI Law) to achieve the UAE Vision 2021 by boosting inward foreign investments.

For instance, in addition to the possibility for 100%



foreign ownership in offshore companies incorporated in the country's Free Zones, foreign investments within the mainland continued to be liberalized. After the promulgation of a series of laws to shape a competitive environment for foreign investments, the FDI law came into force, allowing foreign investments falling under its scope of application to own up to 100% of onshore companies within the "positive list," which included the space sector.

However, a landmark amendment to the Federal Law No 2 of 2015 on Commercial Companies Law (CCL) under the Federal Decree No. 26 of 2020 (the Decree) came into force on 1 June 2021 and repealed the FDI law. Before the awaited amendment, the CCL required incorporated companies in the UAE mainland to have one or more Emirati partners or a company - wholly owned by Emiratis to hold at least 51% of the company capital.

Now, the Decree permits foreign investors to own 100% of certain UAE onshore companies by way of a sole shareholder company. As such, the Emirati's general requirement to own 51% of the onshore company share capital or to act as a service agent of a UAE onshore branch office is removed. The new regime empowered each emirate's Department of Economic Development (DED) to identify the activities with a "strategic impact" for the nation to facilitate the process.



Dubai DED, for example, has issued the guidelines with a list of more than 1,000 commercial and industrial activities that are open for 100% foreign ownership, including satellites manufacturing and investment in outer space objects. However, companies may be subject to further licensing requirements of a UAE board representation or minimum UAE local ownership. In addition to the general framework to attract investors into the UAE, various factors related to the UAE space endeavors are favorable to foreign investors. The UAE has been at the forefront of formalizing and organizing its national space sector, allowing it to make giant leaps in a short period, comparing to the other newcomers to the NewSpace race. The UAE 2016 Space Policy aims to ensure that space exploration is

conducted to support the national economy, particularly the UAE's vital sectors. In addition to leveraging the benefits of Research and Development, scientific missions, and space science and technology for the country's socio-economic growth and the UN sustainable development goals achievement, the UAE space policy aims to establish and expand the UAE's Leadership in Space Regionally and Internationally, and to develop and foster a sustainable and innovative commercial space industry.

Since the latter is one of the global space economy's key transformations and since the NewSpace race is the race to commercialize space, the UAE is shaping a competitive national ecosystem to attract foreign private actors into its space sector.

Her Excellency Ms. Al Amiri, the Minister of State for Advanced Technology and chairperson of the UAE Space Agency (UAESA) explained in her interview with the National News on 21 April 2020 that developing the private space sector is essential to position the UAE "as a global industrial hub by 2031" following the "Operation 300bn" strategy.

The private space sector is set to increase the industrial sector's Gross Domestic Product (GDP) contribution from Dh133 billion to Dh300 billion by 2031. Her Excellency added that the space sector's transformation would be done through creating an advanced space systems hub by 2031. She emphasized the role of the private sector, notably the Public-Private Partnership (PPP), in the development of the private space sector. The reduction of the commercial



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space sector's dependency on institutional funding and the rise of private investment schemes will be one of the main transformations in the UAE. Various initiatives were taken by the UAE authorities to promote space investments and attract local and foreign investment vehicles to consider the funding opportunities in the national space sector.

Among the many initiatives to attract investors, the UAESA launched various initiatives, including the Space Investment Promotion Plan, aiming to contribute to the transformation of the UAE into the envisioned commercial space hub.

In the pursuit of growing foreign investors' confidence in the national ecosystem while balancing the private and public interests and mitigating the risks and liabilities in conformity with the international obligations, the UAE Federal Law No. 12 of 2019 (UAE Space Law) was issued.

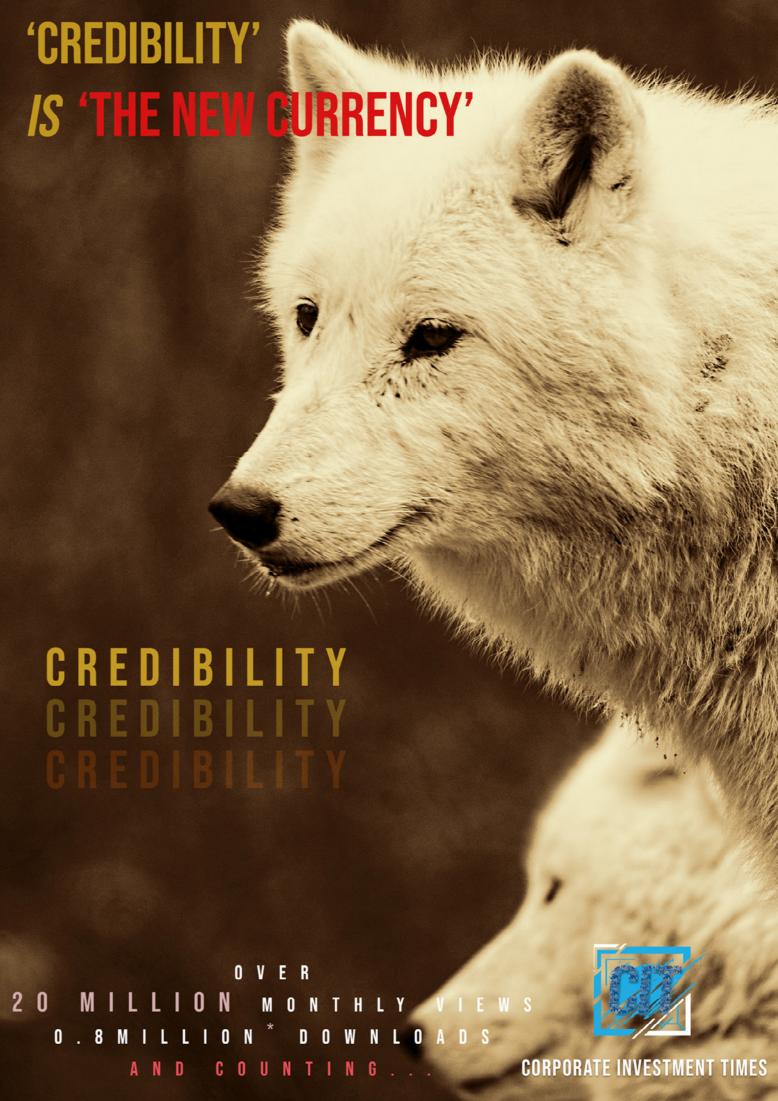
The UAE Space Law creates a favorable legal framework to fulfill the 2030 UAE Space Strategy's objectives and achieve around 79 initiatives and 21 programs. Moreover, the regulatory framework that promotes long-term sustainability and integrates international law principles and best practices make the UAE an ideal competitive host to all stakeholders seeking sustainable economic growth. Furthermore, since the space ecosystem is not a stand-alone one, the host economy's competitiveness impacts the space sector's evolution and profoundly influences its attractiveness to foreign actors. In fact, the UAE's economic competitiveness re-enforces the country's position to attract foreign investors into a

growing knowledge-based economy. As per the IMD World Competitiveness Ranking 2021, the UAE is rated the most competitive economy in the Middle East and ranked the 9th of 64 economies. According to IMD, the UAE ranked higher than countries like the US, Germany, UK, France, and China, thanks to its government efficiency, economic performance, business efficiency, and infrastructure. The covid-19 pandemic has exposed governments' efficiency around the world and their ability to face economic challenges during global crises. Nonetheless, the UAE's leadership enabled the country to rank higher in competitiveness, thanks to the developed capacity offering a competitive advantage compared to the others.

While charting the steps toward building a sustainable commercial space sector and achieving the long-term vision toward the 2117 Mars project, The UAE is creating significant opportunities for the private sector and shaping favorable conditions to attract foreign investors into a knowledge-based economy.

Furthermore, upon the Hope Probe's triumphant arrival to Mars, His Highness Sheikh Mohammed Bin Rashid stated that the achieved unprecedented milestone was only the start of the nation's ambitions. "The Hope probe's historic arrival to Mars is the greatest celebration of the 50th anniversary of our country. It sets the beginning of the next 50 years with boundless ambitions and dreams." ——— His Highness Sheikh Mohammed Bin Rashid Vice-President and Prime Minister of the UAE and Ruler of Dubai.





TALIN BENJAMIN

CEO at MoreThanDigital | Keynote Speaker | Board Member | Futurist |
Government & Economic Policy Advisor | Published Digital Transformation
Expert | Change Management Author | A. Professor

Digital transformation, Digitalization, AI, Blockchain, IoT and many other words dominate the business media like never before. But still most businesses see it as a temporary trend or are overwhelmed by the flood of buzzwords. It is also true that a lot of business owners and executives are just overwhelmed by the sheer mass of topics they need to confront.

But why is the time now so critical to react? Why should businesses see the changes and act on it and why is it also important to keep calm and focused?

The untold truth about digitalization

Businesses shouldn't bother too much about the technology itself – still most believe that this is the biggest driver of their change. The easiest explanation for digital transformation is still that it only consists of 5% Digital (Technologies, IT, etc.) and 95% Transformation (New Business Models, Processes, Strategies, People, etc.)

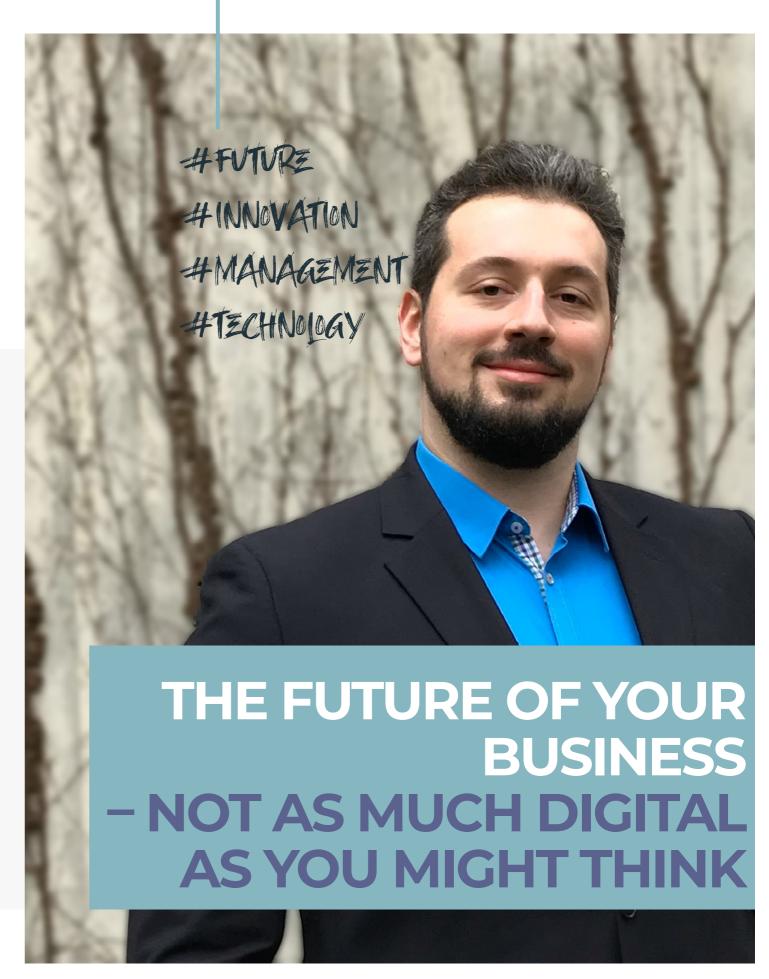
But most technology companies want to make business owners believe that switching to a cloud-based Microsoft Office suite or having a VPN connection for home office is digital transformation. While in fact these are just tools – not more and not less.

You wouldn't also say that you have rebuilt a house just because you bought a hammer or in this case just leased the right to use the hammer, or?

The same is true for businesses. We have literally everything at hand, there is every technology, tool and gadget available to make almost everything a reality. But its about changing the focus of the company, enabling your employees to embrace change, thinking of solutions that would have never been possible without todays connectivity and technology – This is the real value that can be created with digital transformation.

The sad reality the numbers tell

Early indications form the S/E/T-Model pointed out that most industries are not investing enough into their own future and don't handle the transformation well. The model tries to identify the resource allocation for Survive, Expand and Transform. While the last two are very important for the future readiness of companies and tells also a lot about strategic investments and company culture, they are typically very low.



Google tires to achieve a 60/20/20 distribution between Running the Business / Expanding & Improving the Existing Business / Reinventing the Business.

Of course, this must not be true for every company. But the picture is very sad where some industries even have less than 5% attribution to the "Expand" and "Transform"part. This means that less than 5% of their resources, management time and also attention is focused on growing, improving or transforming their business as it is.

So, the numbers tell us that there is still a "we have it always done like that"-mentality in the majority of the business world. But this leads to a big problem as current business models and economic effect are fast and they are scaled globally.

The future of business is already here

We all have heard the examples of Facebook, Airbnb, Google, Apple etc. and we tend to think that these were unique events and unique companies. But the truth is that most companies of the fortune 500 are now built on digital business models and especially one special concept within the digital business models - digital ecosystems.

But why should a normal business owner worry about a business model that is by far one of the most ambitious, complicated and complex systems we have right now? Because it tells a lot about what technology is able to achieve and what it means to be there for your customers at every step of the customer journey.

But first let's talk a little about digital business models and what they actually are. There are many different types of digital business models from subscription (Netflix) to 2-sided marketplaces (eBay) or 1-sided marketplaces (eCommerce). Way more sophisticated business models are for example sharing a property (Airbnb) or the hidden revenue generation (Firefox).

All of these business models have their pros and cons when it comes to challenges, revenues, scalability or revenue generation possibility. This is why its so important to understand these kind of business models and think about using it for the own company.

During the last year a lot of companies realized that it is actually possible to generate completely new value streams by using technology. We had businesses who where selling





TALIN BENJAMIN

Talin Benjamin founded his first company at the age of 13 and many more have followed.

His passion is changing the status quo with technology and innovation. His experience now ranges from marketing, change management, digital product and strategy development to platforms and complex ecosystems.

One of the greatest desires is also to share his gained expertise. The experienced keynote speaker speaks on topics such as innovation, leadership, entrepreneurship, start-up and new technologies and advises governments and ministries on topics of education, economic development and the future.

Since 2017, Benjamin Talin is also founder and CEO of the platform morethandigital.info, which has become one of the world's largest initiatives for digitalization, innovation and topics of the future.

cooking shows online as subscriptions, we saw neighborhoods organizing their own food delivery ecosystem

and we also had a switch to large scale online business opportunities. It is possible and also smaller companies or groups of companies can leverage these digital business models - because its relatively easy due to the availability of ready-made tools and technologies.

The "Monsters" swallowing whole industries

Now let's talk about the new "monsters" in the business world. The white shark, the predator and the invasive species slowly consuming the rest and being more effective than every competitor. These industry giants use their power to change whole industries and take market shares very quickly. To better understand what this means, we have one of the most perfect examples right at the doorstep of most apartments and houses these days -Amazon and their whole Amazon Ecosystem.

Amazon is by far more than just a normal eCommerce shop on the internet selling some books, goods or now even food. They evolved in one of the most complex and profitable businesses in the world. All because of the ecosystem approach. They offer almost all solutions out of their own array of companies. From shopping to payment, entertainment, logistics, advertising, cloud hosting and now even fitness, food, movies, gaming and pharma services.

It is even very likely that somehow you have been in touch with many of these services and you maybe have even experienced how well Amazon is handling the needs of their customers. No matter if you shopped online, you

watched some PrimeTV production or because of your smart speaker at home.

Needless to say, that a small company should pursue something like this or should try to copy this. The essence is more important. It is the way Amazon grew to this mighty business consortium.

THEY ARE OBSESSED WITH THE CUSTOMER JOURNEY AND HAPPY CUSTOMERS.

And this obsession to deliver the best possible customer journey, using technologies, data and seamless experiences is something that can be copied and applies by any company in almost any industry.

And most important: Talk to your customers. Invite them over for a coffee and ask them what their customer journey looks like, where they have the biggest problems, what things they would need besides your current offerings and services or what they buy before and after they were your

A Mindshift - Starting small while thinking big

Dealing with digital transformation can be a tedious task and also very demanding. The biggest problem occurs as you have to really think big and have a big vision at hand but you must start small and with little steps that don't threaten your company.

Digital business models often also don't generate any meaningful revenue within the first years of investment. This also means that you really have to take the sprint to get something started but then have enough stamina and



patience for the long run. This is why you should really get a good understanding of what you want to achieve with your business. Set yourself an ambitious vision what you want to achieve with the next stage of your business, think about the best possible partners to cooperate so you can do the sprint and the marathon together and also be realistic that this is an investment in some uncertain future.

When starting your new business ideas and pushing them forward, get a good understanding of your customers, the whole journey they are going through and talk with some potential partners from your industry or different industries, on how to better take care of these customer needs. This way you can leverage your existing customers, build up new services and products on top and potentially also use highly scalable business models to boost your business and make it future prove.

Questions you have to ask yourself in the process:

- What services does the customer need from the start till the end?
- What products and services can I offer?
- What products and services would be needed before or after the customer bought my product/service?
- What are the companies that would complement my
- How can I take control of the customer journey?
- How can I retain the customer throughout the whole

- customer journey?
- Can I use technology to improve current products and services?

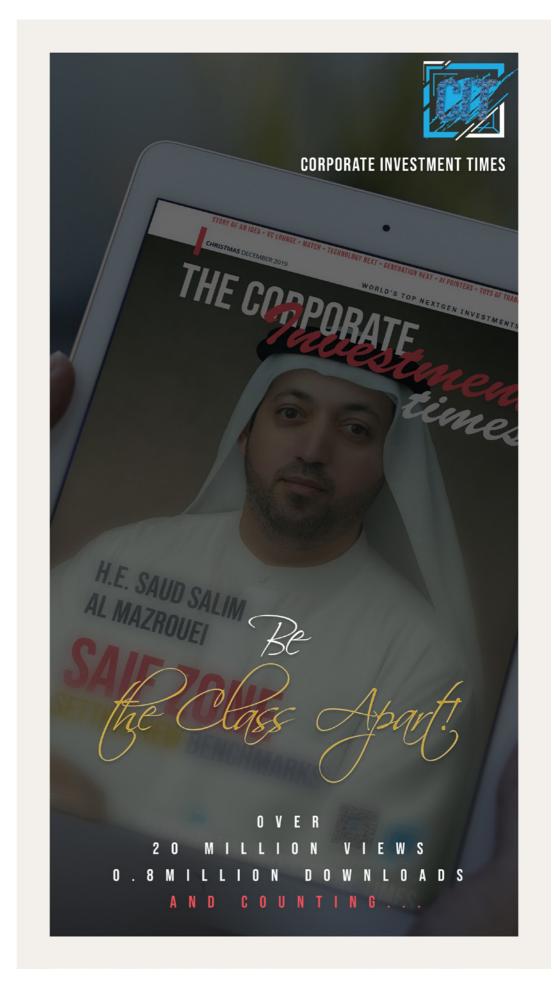
Verdict on growing digital

Let's be honest - Doing business is more complicated and complex with all these changing factors and multitude of possibilities.

But at the same time technology also made it simpler to do things which have never been possible before. To become an online retailer, you simply get a ready-made shop for 15 USD per month, for building digital services you can use open-source technologies free of charge and building apps and programs also got so cheap due to templates, reusable code and an interconnected world.

This means the only factor limiting you from growing and changing your company is yourself and the mindset in your company. Try out new things, allocate resources for these experiments and also plan for failures on the way.

Most importantly: Get out there, learn every day something new, learn about your customers and talk to them often, learn from the most successful business models around the world and try to take the first small steps into changing the way your company is doing things. Allocate about 10-20% of your time, resources and attention to this and you will see a big difference soon.



IOT AND 5G CONVERGENCE

The Convergence of 5G and Internet of Things (IoT) is the next natural move for two advance technologies built to make users lives convenient, easier and more productive.

But before talking about how they will unite we need to understand each of the two technologies.



PROF. AHMED BANAFA

The No.1 Tech Voice to Follow & Influencer on LinkedIn & An Award Winning Author, Expert: IoT-Blockchain-Cybersecurity



Simply defined; 5G is the next-generation cellular network compared to 4G, the current standard, which offers speeds ranging from 7 Mbps to 17 Mbps for upload and 12 Mbps to 36 Mbps for download, 5G transmission speeds may be as high as 20 Gbps.

Latency will also be close to 10% of 4G transmission, and the number of devices that can be connected scales up significantly which warranted the convergence with IoT.

The Internet of Things (IoT) is an ecosystem of ever-increasing complexity; a universe of connected things providing key physical data and further processing of that data in the cloud to deliver business insights— presents a huge opportunity for many players in all businesses and industries. Many companies are organizing themselves to focus on IoT and the connectivity of their future products and services. IoT can be better understood by its four components: Sensors, Networks, Cloud/Al and Applications as showing in Fig.1.

When you combine both technologies, 5G will hit all

components of IoT directly or indirectly, sensors will have more bandwidth to report actions, network will deliver more information faster, for cloud and AI the case of real-time data will be reality, and applications will have more features and cover many options given the wide bandwidth provided by 5G.

Benefits of using 5G in IoT

1. Higher transmissions speed
With transmission's speed that can reach 15 to
20 Gbps, we can access data, files, programs
on remote applications much faster. By
increasing the usage of the cloud and making
all devices depend less on the internal memory
of the device, it won't be necessary to install
numerous processors on a device because
computing can be done on the Cloud. Which will
increase the longevity of sensors and open the
door for more types of sensors with different
types of data including high-definition images,
and real-time motion to list few.

5G 5th Generation

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2. More devices connected

5G impact on IoT is clearly the increased number of devices that can be connected to the network. All connected devices are able to communicate with each other in real-time and exchange information. For example, smart homes will have hundreds of devices connected in every possible way to make our life more convenient and enjoyable with smart appliances, energy, security and entertainment devices. In case of industrial plants, we are talking about thousands of connected devices for streamlining the manufacturing process and provide safety and security, add to that concept of building a smart city will be possible and manageable on a large scale.

Lower latency

In simple words, latency is the time that passes between the order given to your smart device till the action occurs. Thanks to 5G this time will be ten times less than what it was in 4G. For example: Due to lower latency the use of sensors can be increased in industrial plants, including; control of machinery, control over logistics or remote transport all is now possible. Another example, lower latency led healthcare professionals to intervene in surgical operations from remote areas with the help of precision instrumentation that can be managed remotely.

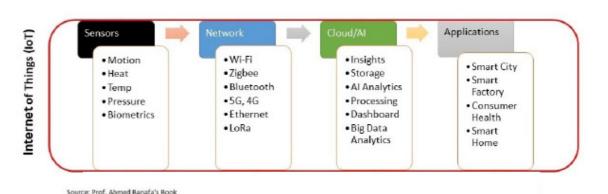
Challenges facing 5G and IoT convergence

1. Operating across multiple spectrum bands 5G will not replace all the existing cellular technologies any soon, it's going to be an option beside what we have now, and also new hardware needed to take full advantage of the power of 5G, IoT's second component "networks" will have more options now and can deal with a wide spectrum of frequencies as needed, instead of being limited to few options.

2. A Gradual up-gradation from 4G to 5G The plan is to replace 4G in a gradual way with all the infrastructure available now and this must be done on multiple levels and phases; software, hardware and access points. This needs big investment by both sides' users and businesses, different parts of the nation will have different timelines to replace 4G and that will be created challenges in the services provided based on 5G, in addition the ability and desire of users to upgrade their devices to a "5G compatible "device is still a big unknown, a lot of incentives and education needed to convince individual and businesses to make the move.

3. Data interoperability

This is an issue on the side of IoT as the industry evolves, the need for a standard model to perform common IoT backend tasks, such as processing, storage, and firmware updates, is becoming more relevant. In that new sought model, we are likely to see different IoT solutions work with common backend services, which will guarantee levels of interoperability, portability, and manageability that are almost impossible to achieve with the



current generation of IoT solutions.

*Blockchain Technology and

Applications", 2020

Creating that model will never be an easy task by any level of imagination, there are hurdles and challenges facing the standardization and implementation of IoT solutions and that model needs to overcome all of them, interoperability is one of the major challenges.

4. Establishing 5G business models

The bottom line is a big motivation for starting, investing in, and operating any business, without a sound and solid business models for 5G-IoT convergence we will have another bubble, this model must satisfy all the requirements for all kinds of e-commerce; vertical markets, horizontal markets, and consumer markets. But this category is always a victim of regulatory and legal scrutiny.

Examples of Applications of 5G in IoT

1. Automotive

One of the primary use cases of 5G is the concept of connected cars, enhanced vehicular communications services which include both direct communication (between vehicles, vehicle to pedestrian, and vehicle to infrastructure) and network-facilitated communication for autonomous driving. In addition to this, use cases supported will focus on vehicle convenience and safety, including intent sharing, path planning, coordinated driving, and real-time local

This bring us to the concept of Edge Computing which is a promising derivative of cloud computing, where edge computing allows computing, decision-making and action-taking to happen via IoT devices and only pushes relevant data to the cloud, these devices, called edge nodes, can be deployed anywhere with a network connection: on a factory floor, on top of a power pole, alongside a railway track, in a vehicle, or on an oil rig. Any device with computing, storage, and network connectivity can be an edge node. Examples include industrial controllers, switches,

routers, embedded servers, and video surveillance cameras.", 5G will make communications between edge devices and cloud a breeze.

2. Industrial

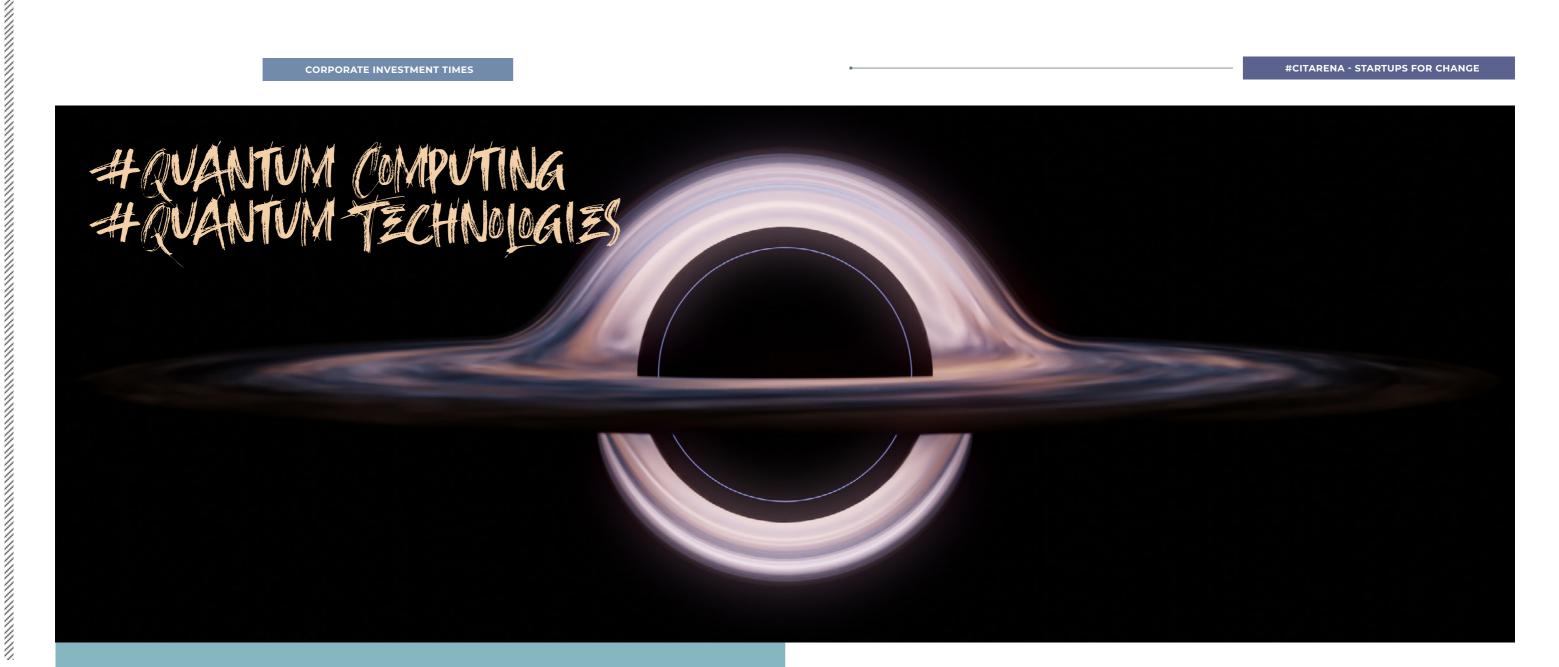
The Industrial Internet of Things (IIoT) is a network of physical objects, systems, platforms and applications that contain embedded technology to communicate and share intelligence with each other, the external environment and with people. The adoption of the IIoT is being enabled by the improved availability and affordability of sensors, processors and other technologies that have helped facilitate capture of and access to real-time information.5G will not only offer a more reliable network but would also deliver an extremely secure network for industrial IoT by integrating security into the core network architecture. Industrial facilities will be among the major users of private 5G networks.

3. Healthcare

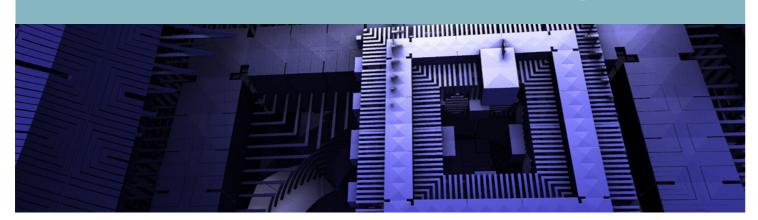
The requirement for real-time networks will be achieved using 5G, which will significantly transform the healthcare industry. Use cases include live transmission of high-definition surgery videos that can be remotely monitored.

The concept of Telemedicine with real-time and bigger bandwidth will be reality, IoT's sensors will be more sophisticated to give more in depth medical information of patients on the fly, for example a doctor can check up and diagnostic patients while they are on the emergency vehicle in the way to the hospital saving minutes that can be the difference between life and death. 2020's pandemic taught us the significance of alternative channels of seeing our doctor beside in person, and many startups created apps for telemedicine services during that period, 5G will propel the use of such apps and make our doctor visits more efficient and less waiting.

THE GLOBAL COMMUNITY MAGAZINE INSPIRE GENERATIONS 2021 29



DELIVERING QUANTUM OF ADVANTAGE, **TODAY**



Dark Star Ouantum Lab

Dark Star Quantum Lab Inc. (Dark Star™) is an imagination first, science driven, project management firm organizing the quantum technology ecosystem for multi-industry benefit.

Dark Star has positioned itself as the "caretaker" of the quantum technology ecosystem 1.0, supporting standalone investment opportunities, as well as opportunities paired with a coalition of likeminded firms in this ecosystem. An example firm is Quantum Computing Inc. (QCI). QCI is the first pure-play quantum firm on the stock market (NASDAO ticker: QUBT).

Today

Today, quantum technology 1.0 offers

- computational speed-up through commercially available (quasi) quantum computers
- 2. provably secure transactions using quantum physical

sources for true randomness

However, clever, high-impact applications of this tech have been missing.

Bridging the gap

Dark Star bridges this gap with an Apple like "quantum" garage" approach providing immediate benefits. Dark Star calls this the "quantum of advantage". We have a systematic approach to provide this quantum of advantage. Dark Star Quantum Lab identifies high-impact application domains of this technology through a threestep, project-managed methodology of academic and industrial collaboration:

- 1. Take first steps from an experimental / lab / academic
- to a market proof-of-principle
- to a finished product.

For example, Dark Star is engaged with academic and



Figure

DR. FAISAL SHAH KHAN

CEO and Chief Science Advisor - Dark Star Quantum Lab Inc.

Dr. Khan is a Mathematical Scientist with over 15 years of scientific experience in the field of Quantum Science and Technology. Dr. Khan is an advisor for Quantum Computing Inc. (QCI), the first pure-play quantum tech start-up on NASDAQ. He is an Adjunct Faculty member at the Paris-based SKEMA Business School, USA, and has served as faculty in the Department of Mathematics and Principal Investigator in the Center on Cyber-Physical Systems at Khalifa University, Abu Dhabi. He was an Associate Editor of Quantum Information Processing (Springer Nature Group).

Dr. Khan has led several projects that used quantum computers to solve industrial problems, including financial portfolio optimization for data from the Abu Dhabi Securities Exchange (ADX) with \$2B trading volume, and a road network traffic flow optimization project, within the scope of the \$62B China Pakistan Economic Corridor

Dr. Khan also set up a quantum random number generator enable network at Khalifa University.



industry collaborators to develop HFTQ - High Frequency Trading on the Quantum Cloud - a trading platform that provides near-optimization of the market using quantum computing technology.

JAD-Q™

Another example is Dark Star's JAD-Q[™] (Joint all Domain Quantum) philosophy, a philosophy that envisions a global network of quantum computers working securely behind a quantum enhanced firewall, solving real life problems such as scheduling of cargo flow through busy ports like Seattle, Dubai, and Gawadar. Also included in this are projects that add quantum-enhanced security to components of cyber-physical systems like drones, making spoofing and zero-day attacks nearly impossible.

With its thought leadership in both the development of quantum tech and its applications, Dark Star offers a unique early investment opportunity in the quantum eco-system coalition that connects to existing multi-trillion dollar markets like the USD 4 trillion Belt and Road Initiative.

Dark Star Intellectual Property

Dark Star Quantum Lab has developed Intellectual property based on the "two stoke engine" of quantum physics.

The Philosopher's Stone

Dark Star Philosopher's Stone™ solution architecture is based on quantum physical features of quantum superpositioning, entanglement, and interference. When combined with information and computing technology, these features can be used to optimize markets and develop engineering methods to separate salt from seawater at low costs, offering a sustainable way to create a freshwater supply.

To put the importance of this task into context, consider the Himalayan glaciers that feed all major rivers of the Indian subcontinent. These glaciers are expected to diminish in size considerably within a 50-to-100-year time span. Unless mitigated with new technology, this will have catastrophic impact on an economy that supports more than 1.3 billion people today.

Dark Star Philosopher's Stone is a solution architecture for solving the ever-growing problem of freshwater supply chain, be it in the American Southwest, the Australian Outback, or the countries of the Arabian Peninsula.

The Philosopher's Stone has other applications domains, including high-frequency trading (HF), airline and port supply chain management, and community detection for money-laundering and fraud mitigation.

SeQure Communication Suite

Dark Star SeQure

Dark Star SeQure™ quantum communication suite offers high-value products like

- QRONE™ A drone that is has on-board Quantum Random Number Generator (QRNG) ability
- 2. BloQchain A QRNG secured blockchain serving as a basis for quantum cryptocurrency.

QRNG is the new high mark for security in mission-critical applications. To thwart nefarious agents from gathering information, QRNG sourced data is necessary for provably-secure communication, as it divulges no pattern in the data. Furthermore, QRNG enabled communication protocols mitigate zero-day threats, always revealing attempted eavesdropping or unauthenticated access.

Dark Star SeQure Communication Suite uses QRNG enabled protocols to offer secure communication solutions that are combinable.

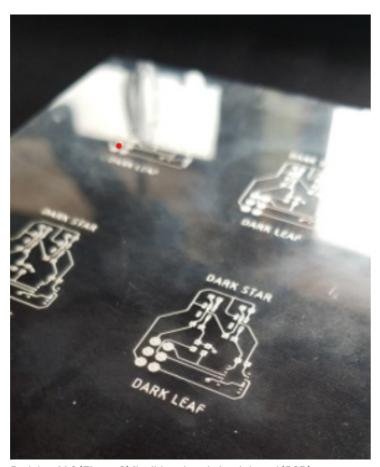
Dark Star Fintech Solution Suite - FinteQ

Dark Star has identified the financial technology (Fintech) sector as one where quantum technology 1.0 can make a strong and immediate impact. To this end, Dark Star offers FinteQ™, a quantum technology enabled solution suite for the financial market that solves problems of security and optimal performance of high profile fintech products such as cryptocurrency and high-frequency trading. See Figure 1.

Working with our collaborators in the quantum technology ecosystem (and beyond) and using commercially available quantum computing platforms, Dark Star FinteQ delivers a quantum computing enabled platform for high-frequency trading that provides an edge over non-quantum platforms by using "noise" in the system as an advantage.

BloQchain™

BloQchain™ is a quantum random number generation (QRNG) enabled blockchain that enables FinteQ to offer Dark Star Qoin, a cryptocurrency that is immune to zero-day threats and is provably-secure against most hacking attempts.



Dark Leaf 1.0 (Figure 2) flexible printed circuit board (PCB) prototype, April 17, 2021

Announcement: https://bit.ly/3IY7pkY Meetup recording: https://bit.ly/3IX3G7f

Dark Leaf ™

Underlying FinteQ is Dark Star's hybrid classical-quantum hardware prototype, the Dark Leaf 1.0. The Dark Leaf is motivated by nature's optimized solar cell, the leaf. Whereas current solar batteries are only 10 – 15 % optimized (only 15% of the ingoing solar energy is converted to electric power), a leaf performs around 35%.

The reason for a leaf's higher performance is its ability to access quantum physical feature of entanglement at high temperatures, a feat that eludes current quantum technology. Dark Leaf 1.0 is a first iteration of the attempt to mimic the performance of a leaf in technology.

Dark Leaf's future iterations will incorporate bleeding edge mathematical thinking and hardware manufacturing to not only to create artificial solar batteries that harvest solar energy at the level of a leaf, but indeed, outperforms it.

Conclusion

To support its role as a caretaker of the quantum technology ecosystem, Dark Star has organized a panel discussion titled Quantum Advantage for Start-Ups at

the IEEE Quantum Week, to be held on October 19th, comprising of likeminded firms and collaborators: https://qce.quantum.ieee.org/panels-program/

Quantum technology 1.0 offers meaningful advantage in the right application domains. Dark Star Quantum Lab Inc. identifies these application domains and offers customers products and services that gives them an advantage, today.

Early investors in Dark Star Quantum Lab Inc. are assured a profitable position in future iterations of the quantum technology ecosystem.

For more information, visit https://www.darkstarguantumlab.com/

For investment opportunities, contact Dark Star CEO, Dr. Faisal Shah Khan, at faisal@darkstartquantumlab.com





DAVE D'SILVA

Chief Operating Officer (COO) and Chief Project Officer (CPO) - Dark Star Quantum Lab Inc.

Dave D'Silva is a mathematician by training, and the founder of Intelligent Market Solutions Group (IMSG). Launched from the University of Waterloo, IMSG is a quantum information science (QIS) inspired, AI and blockchain training and development firm to put back into society what technology took out.

Dave works with the Canadian Federal Government on nuclear energy projects related to National Security, the Defence Department (DND), Atomic Energy of Canada Limited (AECL), and the Canadian Space Agency (CSA).

Dave is co-founder of the York University Quantum Computing for Social Impact meetup, and the Project Management Institute (PMI) Smart Factory Emerging Technology Group (ETG). Dave's goal is to manifest Star Trek technology and societal responsibility. An example is developing the anti-money laundering (AML) and anti-terrorist funding (ATF) software for exchange-to-exchange transactions with the Toronto Stock Exchange, for example, the London Stock Exchange. Another example is developing the software to launch PriceMetrix, whose owner, McKinsey, claims to be tracking \$6 trillion in investment assets.

INESTMENTS

CREATING AN APPETITE FOR INVESTMENT INTO GLOBAL FOOD SECURITY

The universal common denominator of humanity is the need for food and water, and there won't be another investment in any industry or sector that will make sense if we can't feed ourselves. And yet, as a result of factors such as urban sprawl, the challenges brought about by climate change, and the backward economics of farming, we are facing the ever-increasing crisis of food security, globally. The planet has given us enough for our needs but not enough for our greed, and yet, 30-40% of our available global food supply becomes food waste.

With a burgeoning population, growing at a rate of 1.1 percent per year, a total of 83 million new mouths to feed annually, access to healthy food is a right to be enjoyed by everyone. In the United States of America, nearly 1 in 19 households experience food security daily, which equates to 13.7 million households or 35 million Americans who lacked reliable, stable access to food. A shocking reality is that, in America, 1 in 6 children do not know where their next meal is coming from.

When challenged with a definition for food security, the United Nations Committee on World Food Security terms food security as access for all people,



LARISA B. MILLER

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Award-winning International Keynote Speaker Exec Director, Global Chamber of Business Leaders Fayetteville, North Carolina, United States

at all times, physically, socially, and economically to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

The four pillars of food security are availability, access, utilization and stability. With one of the 17 Sustainable Development Goals specifically targeting Zero Hunger and considering that food insecurity is something that will potentially affect us all at one time or another, it must be a global priority for investment and impact investment. As

is not a problem impacting only impoverished regions of the world, here in the United States, we are beginning to recognize how vulnerable we are.

In the wake of natural disasters, like hurricanes; supply chain impediments which imports, or even our own growing and processing challenges, witnessed during the early stages of COVID when supermarket shelves were empty, we saw just how fragile food security can be, regardless how complex a society is.



defined by the U.N., the global Zero Hunger goal means that we will have zero stunted children under age two, 100 percent access to adequate and nutritional food yearround, our food systems are sustainable, zero loss / zero waste of food and a 100 percent increase in smallholder production and income.

To truly understand food security, it is important to have and understand the integral importance of these pillars: availability, access, utilization and stability. The availability and access to food means that the food much be affordable; people must have the purchasing power to acquire food; proper transportation, logistics and supply chain systems must in place; and there has to be equitable food distribution. Having access to healthy, nutritious food The utilization and stability of food supplies are critical when considering the constancy of access. The utilization of food supplies means that we have a continuously achieved standard of quality, safety, nutritional and preparation knowledge.

It's not only about making sure people have food, but also, it is essential that they know the importance of their food choices and how to prepare and consume these selections. The stability of our food - maintaining all of these pillars and ensuring that our food supply chain is safe against the risk of loss due to national disasters, pandemic, or economic and/or political stressors is one of the biggest challenges we face in our quest to be food secure. While these pillars represent the boxes, we must

check globally to ensure that everyone has access to healthy, affordable food, we must look at why we struggle with insecurity of our food supplies.

While there are many catalysts impacting our food security, in the end, it all comes back to agriculture. Agriculture plays an important role in our societies, ensuring the production of safe, healthy food supplies, leading to social and economic development, providing employment, and ensuring the conservation and sustainability of our farmland and natural resources.

The U.S. lost 31 million acres of farmland to development since 1992, and 100,000 small family farms between 2011 and 2019. The multinational food giants are swallowing family farms at an alarming rate.

While the small family farm is very brittle in a world where "the big guy" controls the supply chain and thus, the consumer interface, there needs to be more options for the sustainability of the family farm than just "us against them". This will actualize through innovative new farm cooperative concepts, greater access to independent medium-sized processors, integration of sustainable agricultural innovations adoption of precision agriculture, agritech - drones, RFID, microchips, Al real-time machine learning, and smart apps, which give farmers an instantaneous picture of the health of their crops and livestock.

While agriculture - and agritech, which is an immature asset class, is essential to the future growth and viability of our farms and societies, it still seen as a high-risk investment for traditional lenders and venture capitalists, especially in the early stages of funding, therefore, creating a strong, speculative market for impact investors.

Because agriculture has not historically been seen as a "sexy" investment, it is essential that we place greater attention on the investor education into the value of agriculture and agritech as a strong exit-worthy investment class.

It has been said that the stone age didn't end because we ran out of stones...it ended because of progress, and in this sector, progress is the mandate for future growth and productivity. Understanding the persuasive nature of agriculture as an investment means that we have to walk investors through the compelling innovations and progress of the agricultural sector.

It is not simply a matter of introducing technology into legacy farm models, educating farmers on the value



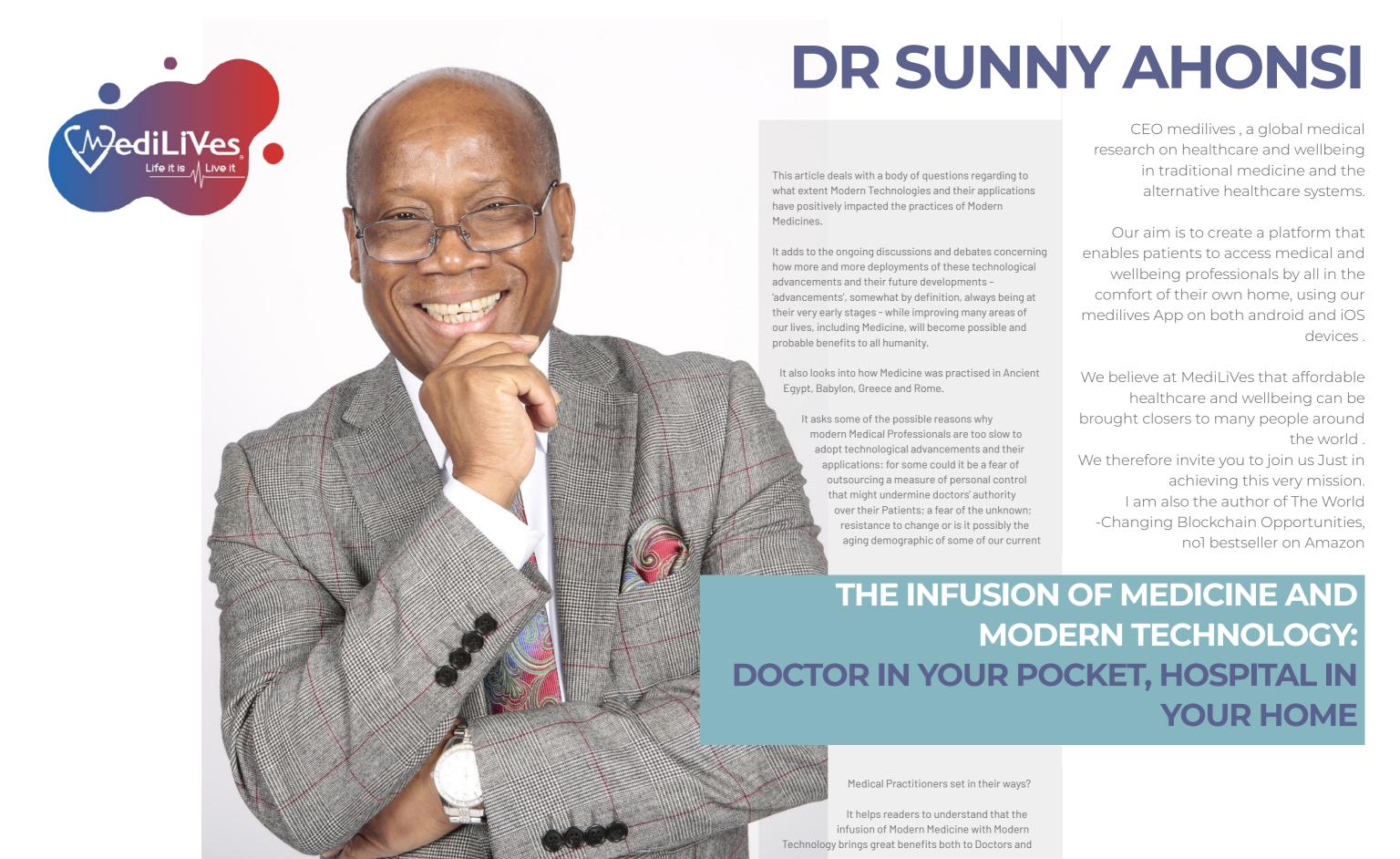
of technology, innovative models and meaningful collaboration, more importantly, it is essential that we lift the veil on how technology not only enhances one of our most important sectors, but how these investments can produce above-average ROI for investors.

Additionally, all investors - conventional or impact, can realize great ancillary value from investment in agriculture, allowing them to demonstrate their conscience and commitment to the sustainability of our future, which then creates a compelling reason for investors, stakeholders and customers to choose them as responsible stewards of their investment dollars.

While food may seem simple to the consumer, there is a very complex system that ensures that we have safe, nutritious food, from farm to table. You can't build a sustainable world on empty stomachs. And you can't put food in those stomachs without empowering the farmer that produces it.

As investors, you have the power to help our planet GROW its way into a sustainable, food secure future.





their Patients.

The Practice of Medicine had always been part of human social development simply because the human race has always been subjected to "Unwellness" and various form of infirmities.

The History of Medicine in Ancient Egypt, Rome and

The Ancient Romans, like the Ancient Egyptians and Ancient Greeks, made huge contributions towards Medicine and Health over the centuries.

The Practice of Medicine in Ancient Egypt was in the hands of Priests who preached to all the people that it was necessary to perform precise rituals of deprivation; temperance; extreme cleanliness and washing day and night. Health problems, according to the Priests, were brought by the 'demons of diseases' such that the treatments of the causes of these diseases were much more of this religious belief i.e. that of mischievous demons inhabiting the bodies of the sick. They associated the causes of diseases both with natural phenomena (e.g. sub-standard food; intestinal parasites; weather-changes) and with supernatural ideas (occult occupancy of the spirit of the diseased persons' bodies). In this faraway past their Physicians used various types of minerals and animal products for their treatments; these included common salt; honey; animal-dung ointments; bloodletting; cannibalism; trepanation - most of the more superstitious practices of which becoming - thankfully - outdated during the Medical Advances of the 19th Century and forward to today.

Ancient Roman Medicine was derived from that of Ancient Greece. It was a combination of some limited scientific knowledge saturated with a deeply-rooted religious and mythological system. The Romans believed in the supernatural causes of diseases as well as the supernatural cures of diseases. The ancient Roman Medicine involved a lot of specialisations such as Optimistic; Urological and Ophthalmological. The Romans believed in the notion that 'Prevention is better than Cure'. Medicines in Ancient Rome involved the use of herbs. spices and magical spells. Some of the herbs used for medicinal purposes were fennel; elecampane; sage; garlic; fenugreek and 'silphium' (an unidentified plant that was used in Classical Antiquity as a seasoning; a perfume; an aphrodisiac and a medicine). With the fall of the Roman Empire this Roman Medicine, along with Rome's other branches of science and technology, also decomposed.

The Greeks tended to believe that most ailments could be healed by prayers to the God of Medicine, Asclepius. The great Medicinal Temples, known as Aesclepions, were where many Greeks went to seek healing by making sacrifices and prayers to the gods in return for having their ailments healed.

However, this all was changed by the legendary Hippocrates, whom we know today as 'The Father of Medicine'; he is also considered to be the founder of the Ancient Greek Medicine that focused on "natural" treatments to approach diseases. Hippocrates' great contribution to the evolution of medical practice was to separate the Medical from the Divine. The principal point of Hippocratic Medicine is the belief that Medicine should be practised as a scientific discipline based on the natural sciences i.e. diagnosing and preventing diseases as well as treating them. After Hippocrates, there no longer being general recourse to the convoluted concoction of

superstition, magic, religious interpretations and empirical treatments lauded, protected and applied by Priest-Physicians, Medicine became a real Science. This era brought about standards of Scientific Practices and Ethics to which Medical Practitioners must comply in their quest to look after their Patients.

As the founder of the Hippocratic School of Medicine he made the major contributions to Medicine that persist today. His famous and welldocumented 'Hippocratic Oath', the pledge to "Do No Harm", is still regarded both as the firm foundation and the supportive cornerstone of Medical Professionalism today; the Oath exemplifies the fundamental thus-ancient and, today, modern

ethical principles of beneficence, non-maleficence and confidentiality. Its foremost message is that Doctors must always focus on their Patients' best interests.

The Hippocratic Oath has four parts: a pledge to pagan deities; a list of positive obligations; a list of negative obligations and a concluding piety.

Each section has ethical implications. By swearing to follow the principles spelled out in the Oath Healthcare Professionals promise to behave professionally, honestly and ethically.

Those taking the 'Original Hippocratic Oath' promise to:

- · Respect and support their teachers;
- Share Medical Knowledge with others who are interested:
- Use their Knowledge of Medicine and diet to help

Patients:

- Avoid harming Patients including providing no "deadly Medicine" even if requested to do so;
- Not provide a "remedy" that causes an abortion;
- Seek help from other Physicians (such as a Surgeons) when necessary;
- Avoid "mischief", "injustice" and "sexual relations" during visits to Patients' homes;
- Keep Patients' Information confidential.

Physicians and their Allied Medical Professionals in Ancient Egypt, Rome and Greece developed various form of Healing Practices that, when weighed on the scales today, do not measure up to the accepted 'Standards of Quality of Care' and, indeed, some of which are highly questionable in

Modern Medicine Practices.

Can you now imagine what our today's practices will be in twenty... thirty... fifty... one hundred years' time? Imagine! All human progress starts its life in the human imagination.

Technology drives Healthcare more than any other force; in the future it will continue to develop in dramatic ways. If the current trends continue they have the potential to transform Healthcare completely in terms of the diagnoses; prognoses; prescriptions and treatments of Patients.

Is it sufficient to rely solely on Traditional Medical Interventions or should we now explore and apply more of the technologically-available

alternatives?

- Homeopathic;
- Bio-Resonance:
- Functional Medicine;
- Electromagnetic Radiation (EMR) Harmonizing products;

• Quantum Resonance (earthing /grounding).

The NHS UK has even now provided guidelines in terms of alternative approaches to Medical Practices.

These alternatives are not only pertinent for the Clinicians and Patients alike, they give Patients increasingly available freedoms of choice regarding how they can work with their Doctors to manage their own health's destiny.

Such freedom of choice is frowned upon by some members of Medical Professionals, they now feeling that they are losing their authority in the 'Medically-Intervening Processes' of their Patients; the increasingly popularisation of the Medical Applications of ever-growing New Technologies in Modern Medical Practices is widening the understandable consternation of such Medical Professionals. Should the Medical Practitioners be so concerned with these developments?

The current Healthcare System is over a Century old! Over the last hundred years, despite technological advancement, the Care System is still largely using 'analogue approaches' to Healthcare even though the advent of New Technologies, they being more dynamic and exponentially becoming more digital - and emergently more quantum-device inventive - in other areas, has impacted, and is increasingly influencing, so many other aspects of our lives: aspects such as:

- The way we eat;
- The way we travel;
- The way we produce and listen to music;
- The way we financially transact across borders;
- The way we communicate with each other ... and many, many more areas.

If technological advancements have improved the qualities of our lives in these areas does it not make a more compelling case to welcome their increasing applications to Medicine and its practices? Surely this is certainly a cause for celebrations! Given this: Has the advent of COVID19 not demonstrated the pressing need and desirability of 'Distance Medicine' that is aided by means of technology?







How about in the case of "Tech-Prescription Drugs" (TPD)?

We are ridden with many diseases and infirmities with which Traditional Medical Interventions are unable to deal; is it not welcoming to see that Non-Invasive Therapies have been developed with the aid of technologies in order to support our ever hard-working Medical and Pharmaceutical Practitioners to look after the wellbeing of the people?

Scientists and Medical Practitioners have proven the complexities of our human body – Bio; Physio; Emotional and Spiritual.... thus, one method of intervention cannot fit it all. Alternative, integrative, complementary strategies have been developed by "Alternative Doctors" (ADs). Over many years these ADs, having consistently proven the professionality of their practices to the current Medical Establishment, still fail to receive the recognition they deserve. Why?

I would like the reader to answer that; my contribution is to ask another question: "Is it the case that the formalised system of Medication and Patient Care must be decided only by the select few in the Medical Profession?" Could it be the case that the current medical narrative must be maintained in its entirety for the status quo to be maintained?

For the purpose of exploring and establishing the benefits to be derived from the application of New Technologies to Modern Medicine we used MediLiVes, a UK-based organisation, as a case-study the very purpose of which is to demonstrate how the efficacies and the applications of Innovative Technology, both to traditional and alternative approaches, are providing solutions for Patients. It is not surprising that the UK's NHS has provided guidelines regarding increasing its Patients' choices of personal decisions regarding how the expected outcomes of their Well-Being are to be determined. This approach should rather be viewed by the decision-makers in the Medical Management Process as value-additional to the

processes of the Medical Dispensation of Healthcare. This advance also frees up the time-constraints on Healthcare Professionals to focus on their works of treating those Patients who actively need their distress-justified Medical Attention.

As the applications of Modern Technological advance in every aspect of our lives today who can hazard a guess that the current normalities of Medical and Healthcare Interventions will not be considered to be otiose and even barbaric in twenty... fifty... one hundred years' time? Just as we have seen the progress of the Practices of Medicine since Ancient Egypt; since Babylon; since Rome; since Greece... etc.

However, in terms of 'Clinicians' Delivery of Healthcare Provision' to their Patients, the operational structures of Medical Professionalisms have pretty much stayed the same – now so slow, cumbersome and bureaucratic that they can no longer cope readily with the modern fast-paced living responsibilities of our expanding global populations.

Drawing from the UK's example, a medically advanced nation similar to other medically advanced nations such as the US and Germany, this persistently cumbersome process to gain treatment can take anything from six weeks to any indeterminate time period which inevitably results in diagnostic, prognostic and treatment delays due to administratively expensive bureaucratic time-consumption. Such lumbering uncertainties of tightening time-frames for efficient treatments can only serve to aggravate the physical pains and mental distress of Patients. This is certainly not sustainable: it needs to be changed.

Research has shown that sixty percent of the Patients who visit Accident and Emergency Units (A&E), while certainly in need of some medical help, have no actual need to go to such extremes to receive that help; they simply clog up the queuing system for those acutely

suffering people who desperately needed immediate levels of Emergency Treatment. People with Urgent Medical Needs, desperately requiring an immediate in-person appointment, often cannot get in to see the Doctor as quickly as they should while people with milder needs may take up valuable Treatment-Time. This research has shown that these sixty percent of Patients who hastily resorted to A&E Services can actually be taken care of by means of a Remote Monitoring Protocol that frees up the time of Doctors and other Medical Professionals - thus allowing them to focus on the forty percent of Patients who need 'Critical Levels of A&E Care' immediately.

The challenges listed above all boil down to the fact that keeping up with technological advances is difficult. Whilst technology has benefited Healthcare in many ways it also comes with challenges. Medical advances, while saving many lives every year, also push up costs considerably. It is estimated that progress in Medical Technology, costing some of the world's Health Services at least an extra £10bn a year, can offer no major improvements in the Healthcare System until implemented to their full technological potential.

The stumbling block to this complete utilization is that the current dispensation of services still remains the same as it always has - i.e. Doctors and Patients needing to meet physically. We need a Healthcare System that prioritises Patients' actual speed of access to certainties of safety over the queue-laden uncertainties of satisfying theoretical and fiscally-dependent top-down targets; one that removes barriers to efficient, effective and economical interdisciplinary collaboration with regard to Technological Innovation and that is so accurately and primarily target-resourced that it will be successfully adopted across Health and Care Systems. It must be one that, by supplying 'Real-Time Population-Demands Data', resourcefully and creatively optimizes investment allocations to our Healthcare Services' workforces.

Administrators and leaders in the Healthcare Industries' Best-Case Practices' must be given the resources to work to address and overcome these challenges so that all Patients can benefit from the latest advances in Medical Technology. Digitalization; Artificial Intelligence; Genomics; Big Data; Robotics; Virtual Reality; Augmented Reality; Tissue Engineering; 3D Printing; Quantum Devices - as well as countless other innovative tools - are all already in use, but the existing systems cannot currently prepare our Medical Workforce for these accelerating changes in their working environments if they are trained to be fully familiarized with the potential usages of these Emerging Technologies when they start providing care to their Patients. This certainly requires the planning of resource-engagement with burgeoning technological progresses coupled with obligatory resource-allocation in terms of time and money - to upskill practitioners and

systems in how to use these practical resources to best advantage; this posits the need for a usage-appropriate, demand-driven Techno-Medical Education structure.

Remote diagnostic tools and advancing methods of 'Medical Monitoring and Communications' not only serve to improve the quality of Patients' Care: they do so at less operative expenditure than do present systems. Electronic Health Records that allow Doctors real-time access to a given Patient's complete Medical History maintain better Care Practices; this, unlike the present system, allows Patients to participate in their process of their own recovery.

The Patients need collaborative multidisciplinary education in how to become actively involved in their 'Complete Process of Healthcare and Well-Being' by

"ILLNESS IS
UNIVERSAL
BUT ACCESS TO
TREATMENT IS
FARTHER AWAY
FROM OUR GRASP."
~ DR RAJ PANJABI ~

regulating how their self-monitored lifestyles are impacting on their Health and Medical Conditions. It has been medically proven that excessive behavioural lifestyles, such as eating junk food; drinking alcohol; smoking and other dangerous habits, have direct correlations to our well-being. So: educating the public in the 'Personal Health Advantages' of 'Self-Monitoring Predictive Technologies' rather than relying on the usages of outmoded bricks-and-mortar data approaches will go a long way to reducing their exposure to adverse Medical Conditions.

In today's world of sophisticated Hospitals with Advanced Medical Technology, all of them staffed with hundreds of Healthcare Professionals, we can still see overqueued Waiting-Rooms brimming – often to the point of overflowing – with often impatient Patients stressing out the others. Historically: when one talked about a Doctor's

Visit, it was the Doctor who was doing the travelling and visiting. Once upon a time, not that long ago, Doctors would travel by foot, car - and even horseback - to treat Patients who were too sick or injured to make the journey to the Doctor.

In the twentieth century in-person Doctor Visits were very common; as indeed was the popular image of the family Physician, smiling and carrying a trademark Black Leather Bag. Those days are largely gone: since then Healthcare has evolved in dramatically exciting ways. Technology has advanced, Doctors have become more specialised, and the quality of care has increased. But gaining access to the benefits of quality Healthcare still depends, as it always has, on physically connecting the Doctors with their Patients.

However: the modern GP doesn't have the time-capacity to travel around to see high – and growing – Patient-

Populations, so in-person Doctor Visits simply aren't feasible. It is clear then that the centuries-old approaches to Patientcare needs to be changed. Fortunately, thanks to modern technology, the Internet is bringing back the "In-Person Doctor visits" in an innovative form whereby Doctors now have the capability to provide care and treatment in the home through Video Visits and Remote Monitoring; in so doing they can make Healthcare more accessible and affordable to millions of people in need.

responses to 'Main Care Challenges' such as inefficiencies in costs; personnel deployment; Patient-to-Doctor accessibility; real-time accuracy of diagnoses and prognoses; pharmaceutical supply-chain management; Doctor-to-Doctor communications, and accessibility to record-keeping.

Telemedicine Services include Virtual Consultations; Diagnostics; Prescriptions; Therapy; Preventative Care; Remote Monitoring ... and much more. Basically they streamline Medical and Clinical Services Practices by means of Modern Telecommunications Technology via an app, Video Communications or even just by a phone call; thus communication is remotely enabled and established between a Patient and a Physician. Gone are the days of rushing to the Doctor or Hospital for a simple cold or minor rash.

Increasing political, economic and social pressures



For all of us, everywhere, this is a Healthcare game-changer that will save lives by assisting all our Medical Professionals, no matter where they and their Patients are located, to care for the ever-expanding at-risk populations of our global community. The certainty of access to means of both getting healthier and staying healthy simply through the use of an Internet connection resonates inspirationally among all demographic groups in all geographical regions.

More and more our emergent Remote-Access
Technologies – whether enabled by a Smartphone, a
tablet or other specifically-programmed devices – are
bringing high-quality, affordable, accessible Healthcare
to communities across the world. Effectively moving
Care away from Hospitals and into the home disrupts
the redundancy of outmoded time-sensitive queueing

coupled with demographically growing international demands on our global Healthcare systems to meet Patients' expectations of easy, hassle-free access to medical services without their having to make in-person visits while simultaneously improving the efficiency of care-delivery at reduced costs is propelling the integration of Telemedicine into the mainstream of Healthcare Services; globally: Telemedicine represents an important and necessary tool-based methodological technology for solving many of the otherwise intransigent challenges facing our Healthcare Systems. Its role in the optimization of health resources and the improved management of treatment-demand reduces the times of in-hospital stays by allowing Patients to complete their consultationvisits in the comfort of their own homes or offices; the flourishing upsurges in the important applications of this technology offers hitherto unimaginable improvements

of the efficiency, affordability, accessibility and sustainability of Healthcare Systems worldwide. The concept of Telemedicine is only in its infancy but as the average person becomes used to its life-saving convenience, i.e. without the need to queue up in a Waiting Room and to feel more comfortable about receiving Remote Care simply by consulting their Doctors on their Smartphones. Thanks to their access to receiving from their Medical Devices instant attention that is firmly based on their personal historical data plus their ability to control their own healthdevelopment from the palms of their own hands is gaining intensifying prominence both in the Medical Field and the sphere of global public

perception.

The current tragedy of the COVID-19 pandemic has clearly signalled that the transformation of Medical Accessibility by the adoption of New Technology is imperative, desirable and compelling; the sheer numbers of affected people involved must oblige us to cut down on all our current - and potentially inflating - reactive costs by setting in place preemptive response-strategies to guard against resource-constricting similar subsequent outbreaks and to invest in further strategies that, by optimizing present and future targeted Supply-Chain Health-Management challenges, will reduce face-to-face Patient-Pressures both on Medical and Administrative Personnel and their existing resources.

One of the major objections insinuated by the critics of 'Tech-infused-with Medicines' is about the preservation and privacy of Patients' personal data: this where the Blockchain figures in Healthcare Systems. Blockchain represents an innovative data-transfer vehicle to manage medical records and communications: thus ensuring Remote Consultation interoperability while simultaneously protecting against any security-compromises. It protects Patient privacy by allowing Patients to choose who can view their data: this empowers Patients in a way that has not been previously possible.

The additional benefits of using Blockchain for Health Records include the ability to analyse the information with Artificial Intelligence. This enables us to forecast and plan for the probable impacts of the immediate and foreseeable needs of national and international population-trends and so allows to optimise – in all resource-allotments – strategies for maintaining efficient, effective and economical real-time population-level healthcare accessibility. Another advantage is that this Open-Source Technology enables peer-to-peer consultation, regardless

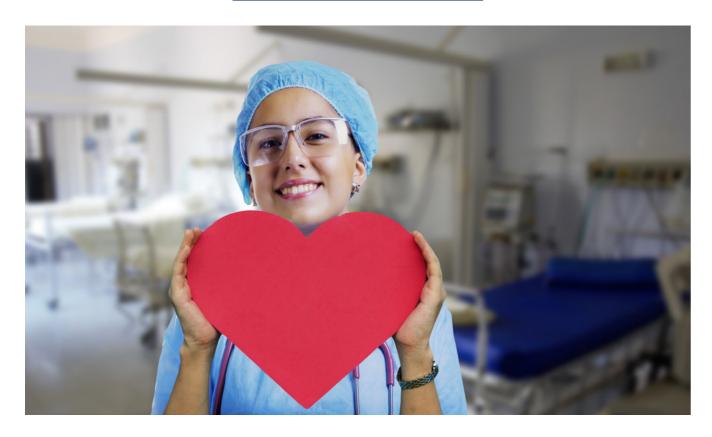


of their respective geographical locations and zone-times of the day, between a Doctor and her/his Patient.

The Healthcare Industry has a lot to gain by purposefully and intelligently adopting such technological practices as can improve all its desired outcomes. New technologies have the potential to revolutionize the way we manage Health and Well-Being now and in the future. In recognition of the presently pressing human need for an effortless, affordable and cost-effective means of connecting Patients to doctors: Medi-Science International, a UK-based organization, was founded exactly for this purpose, i.e. to research innovative best practices so as to deal with and supply the global demands on Healthcare Systems by striving to determine that all citizens, regardless of their socioeconomic class or geographical location, have access to high-quality Healthcare. Their mantra: DOCTOR IN YOUR POCKET, HOSPITAL IN YOUR HOME.

One of MediLiVes' signature products, the 'MediLiVes Global Health and Wellbeing App', is truly a demonstration of technology that enables Patient-needs proximity by empowering Patients to connect directly -7/24/365 - to Doctors, Dentists and other medical and associated non-medical professionals. This represents substantial time and cost savings both for Patients and their Healthcare Providers. The MediLiVes App, which can now be downloaded on both Android and iOS, brings about inclusive global Healthcare opportunities for any person in any place at any time.

Mobile technology offers great potential improvements in levels of service thereby providing productivity-gains while reducing associated costs across the Healthcare Sector. Mobile applications are used to access and update



Patients' records, to input the results of tests, to monitor Patients and to provide the real-time Clinical Information needed to support Doctors and other Healthcare workers. Highly innovative and portable devices are designed to remote monitor; tele-monitor; diagnose and prognosticate health issues and to monitor infection spread - thus reducing waiting times, appointment queues and face-to-face medical staff-to-Patient contacts.

With the latest technological developments, MediLiVes now offers 'Bio-Resonance Therapy', an alternative medical method by which, by analysing and using target-specific human bio-frequencies, are able to discover and measure pathogens in the human body. Thus: recommending in accord with the patterns of the diagnostic analyses of a given Patient's unique whole-body frequencies they have the capacity and capability to apply specific curative bioresonance frequencies to maintain and improve the overall conditions of the Patient's health.

This non-invasive technological process - non-blood; non-fluid; non-surgical; non-magnetic and non-electrical, unlike other diagnostic methods that can only detect symptom after it has arisen - gives medical professionals the ability to see the whole-body predisposition of a given human body to suffer an infection before that infection's signs and symptoms appear.

One of Humanity's greatest geniuses, Nikola Tesla, is quoted to have said that: "When Science will begin to look at the human organism in terms of energy, frequency and vibration, Medicine will progress in 10 years as much as it

has progressed in its entire history". Modern Science, in demonstrating that all organisms - including bodily organs and tissues as well as pathogens of all kinds - operate with their own unique oscillatory frequencies, has proven correct this prominent originator of that remarkably percipient insight.

Some of their diagnosis and therapeutic innovative devices have no analogues in the world and can deal with about 2500 health complexes which largely replaced the Medicine Chest. They are designed to maintain and restore physical health & wellbeing; normalize the function of the internal organs; strengthen the immune system; and many more.

While it is undisputable that the ever-quickening increase in technological progress has produced many positive social effects for humankind over the last two centuries it has also generated many concomitant health concerns; it is imperative to recognize that while avoiding the downside health-effects of the mass-industrial applications of new technologies is not an option for most of the world there are protective solutions to help minimize their effects on our physical and mental health.

In view of the above challenge: MediLiVes is the proud distributor of the 'Orgonium® Range of Electromagnetic Radiation (EMR) Harmonising Products'. Their 'EMR Harmonising Products', uniquely programmed to neutralise around thirty different harmfully noxious EMR emissions, produces a negative charge resistance that is as close as is possible to that of undisturbed nature. This negative

resistance is vital in neutralizing and balancing the positive charge that is produced by Electromagnetic Field (EMF) devices. Orgoniums'® 'EMR Harmonising Products' have been developed from over twenty years of 'Intuitive Building Biology Consultancy' experience. Because the negative charge does not decay; that means that their line of products, sourced and infused with their unique 'Orgonium® Resonance Technology', will last a lifetime. The full range of their harmonizing products has been developed and refined through many years of research, field-tested and proven as non-placebo.

Their passion, as is MediLiVes, for the advancement of human health and wellness continues to grow as they constantly research and source new products that will add to their commitment to serve their customers' Health and Wellness needs in an increasingly radiation-polluted world. A new paradigm of Medicine is approaching: it is the undeniable existence and importance of Quantum Physics. The medical establishment, through no fault of its own given the constraints of investments in previously upto-date human and resource traditionalism, is forced to embrace somewhat slowly the revolutionary and important discoveries that directly impact Patients' access to on-the-spot Healthcare Dispensation.

MediLiVes specializes in 'QUANTUM RESONANCE CONCEPT (QRC)' products that embrace a powerful set of frequencies

and information waves that have a direct effect on your everyday health and wellness. QRC's products are designed to quantum-entangle their harmony resonance into any food or beverage: thus harmonising the electromagnetic radiation-interference in them to the deep-level frequencies of their optimal natural states.

This is really technology at its best!

From the times of the Baby-Boomers of the nineteenfifties and sixties into those of the Millennials in the nineteen-eighties and nineties - and today into the Twentyfirst Century's 'Quantum Generation' - Healthcare has truly progressed in its capacity to diagnose, to prescribe and to treat Patients using technologically enhanced therapies.

Good healthy well-being is a right for ALL people, not just a privilege for a select few to have access to timely, convenient and affordable Medical, Healthcare and Well-Being - at any time of the day, at any location, 7/24/365. Isn't that amazing!

Be a driver of Healthcare and Well-Being evolution! Life It Is! Live It!





#ARTIFICIAL INTELLIGENCE #BUSINESS LEADERSHIP

A VISION FOR BUSINESS LEADERS IN THE FINANCIAL SERVICES SECTOR: **ARTIFICIAL INTELLIGENCE**

DR. RAUL VILLAMARIN

Dr. Raul Villamarin Rodriguez is the Pro-Vice-Chancellor, Woxsen University, and Dean of the School of Business at Woxsen University. He holds a Ph.D. in Artificial Intelligence and Robotics Process Automation applications in Human Resources.

Dr. Rodriguez's specific areas of expertise and interest are Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Robotic Process Automation, Multi-agent Systems, Knowledge Engineering, and Quantum Artificial Intelligence. He has the experience and feels comfortable using Prolog, Java, C++, Python, R/RStudio, Julia, Swift, Scala, MySQL, Spark, among others.

He is a registered expert in Artificial intelligence, Intelligent Systems, and Multi-agent Systems at the European Commission, a nominee for the Forbes 30 Under 30 Europe 2020 list, and an awardee in the Europe India 40 under 40 Leaders. Alongside this, he is a member of the GRLI Deans and Directors cohort. He is a regular keynote speaker and panel moderator at various national and international conferences or summits such as ML Conference (Singapore).

Additionally, he is a member of the Harvard Business Review Advisory Council, the Oxford Artificial Intelligence Society, embedded in the University of Oxford, and the Institute for Robotics Process Automation & Artificial Intelligence. He is engaged in responsible research across his career and especially through RRBM, GRLI and PRME.

Technology has turned out to be a great ally for companies in different sectors, and among them, the financial services is one of those that has known the most to benefit from its advantages, implementing several of the applications of artificial intelligence in different areas, both at the external and internal. One of the main applications of artificial intelligence in the financial industry is focused on improving the relationship between client and institution. An example is the use of chatbots and virtual assistants to optimize the response to specific problems.

The integration of Artificial Intelligence is opening an increasingly tedious path within the financial sector, thanks to the automation and industrialization of tasks that were previously believed exclusive to the human being. Today, Al is revolutionizing the industry, despite the difficulties and in India there is still enormous potential for its development.

Artificial Intelligence applications are already integrated into various verticals:

1. Virtual assistants

It helps the client to make financial decisions and facilitate the making of transfers and payments, as well as providing quick information on balances and recent movements without having to install applications.

Some of the benefits of implementing a virtual

- Provides various specialized services
- Increase satisfaction and increase customer confidence



- The use of historical information reduces application review times
- Introduces greater objectivity and transparency in the allocation of credits

3. Fraud control

It enables the recognition of patterns to avoid crimes such as fraud or money laundering; mitigates growing cyber risks such as misuse and leakage of highly confidential information.



- Reduce response times and increase company productivity
- Get to know customers better

2. Credit Scoring

It allows greater precision, automation and speed, through the combination of algorithms and 'big data' to promote safer credits.

These are other of its possible benefits:

- Reduces costs by limiting face-to-face contact between the bank and the customer
- It increases the automation of the credit granting

- Other benefits are:
- Helps analyze large amounts of unstructured data in
- Learn for yourself and create models that help detect fraud automatically.
- Analyze user behavior and detect suspicious activity.
- Detect false alarms.
- Detect and prevent the entry of resources of illicit origin.

4. Automated investment funds

Through Al and 'big data' analysis, the financial sector is able to analyze all the available information to make predictions and decide or recommend where and how much to invest. More benefits of Al in mutual

It is capable of processing large amounts of information 24 hours a day, 365 days a year

funds are:

- It is capable of making a purchase or sale decision on its own
- Eliminate human error and process bias
- Analyze and understand information from different sources to base your predictions
- They use Al and 'big data' analysis to analyze all available information, make predictions and decide what to invest in.



It uses automation to give personalized financial advice, interacting with both clients and bank employees, to guide the user's process, according to the particular needs of each one.

Among its benefits are:

- Considerably reduces time when informing and making decisions
- Help clients estimate finances
- Give customers a comprehensive and accurate view without the need for tedious manual tasks
- Quick access to up-to-date and accurate reports and predictions

6. Smart insurance

It is based on data analysis to expand the amount of information that is analyzed, as well as the ways in which it can be used, fine-tuning precision and reducing costs and risks.

Other of its benefits in the insurance sector are:

- Improve customer experience and improve service
- You get more granular client profiling
- It allows to assess risk more precisely, due to the large amount of data available
- Minimize time during the analysis of images for claims
- Speeds up the evaluation of any claim and fraudulent claims are filtered efficiently
- The start of a successful transformation

According to figures from the World Economic Forum, by 2020, global investment in artificial intelligence by financial institutions was estimated to reach USD 10



Billion, a significant investment in terms technology implementation for companies. However, due to the COVID-19 pandemic, it hit USD 7.91 Billion, a significant figure nevertheless.

And it is that the world of financial services sees Al as a way to provide more efficient and secure services. Among the advances that we will see in the coming years is expected to be able to use automated monitoring, exception reporting and anomaly detection.

By next year, 25% of companies will use conversational speech technology in applications related to customer experience, according to the consultancy IDC, and by 2024, Al-enabled user interfaces and process automation will replace a quarter of current screen-based applications. (IDC).

WHEN ALL YOU HAVE IS A HAMMER, EVERYTHING LOOKS LIKE A NAIL

The Law of Instrument

The law of the instrument, also known as Maslow's hammer is a cognitive bias that involves an over-reliance on a familiar tool. As Abraham Maslow said in 1966, "I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail."

A hammer is not the most appropriate tool for every purpose. Yet a person with only a hammer is likely to try and fix everything using their hammer. often without even considering other options. We prefer to make do with what we have rather than looking for a better alternatives.

This article explores how the law of instrument is prevalent in change management, disruption, innovation organisational transformation and digital transformation.

It examines the biases that lock our thinking. It also looks at why most digital transformations fail.

True transformation of any kind must be done through an integration of the right tools and the right mindset. However, we will never change business models, without first changing mental models, a core concept in my book "Undisruptable: A Mindset of Permanent Reinvention for Individuals, Organisations

CULTURE
INNOVATION
IZADERSHIP
REINVENTION
UNDISRUPTABLE

AIDAN MCCULLEN

Innovation consultant, host of the Innovation Show and author of the bestselling book, "Undisruptable: A Mindset of Permanent Reinvention for Individuals, Organisations and Life" available on Hardcopy, Kindle and audiobook.

Dublin, County Dublin, Ireland



and Life."

The Einstellung Effect
Einstellung is the development of
a mechanised state of mind. The
Einstellung effect is the negative
effect of our previous experiences
when solving new problems.
Einstellung refers to our
predisposition to solve a given
problem in a specific manner even
though better or more appropriate
methods of solving the problem exist.

(Maslow's Hammer)

In 1942 renowned psychologist
Abraham Luchins conducted
an experiment to illustrate the
Einstellung effect. Luchins gave
subjects 3 water jars with the
capacity of (A) 21 units, (B)127 units
and (C) 3 units, he then asked them to measure out exactly
100 units.

As you would figure, the solution is to fill jar (B)127 units, then pour out enough to fill jar (A) 21 units and jar (C) 3 units twice (to get 6 units).

The formula would look like this: 100 units = B-(A+2C) or 127-(21+2x3).

This is where it gets interesting...

Luchins then gave the same subjects 3 new water jars with the capacity of (A) 18 units, (B) 48 units and (C) 4 units, he then asked them to measure out exactly 22 units as quickly as possible.

If you have time try it, if not, please continue for the solution.

How do people fare? Most subjects look for a similar solution to the first problem, so B-(A+2C), when the answer is much simpler. By ignoring jar (B) 48 units, we can simply add jar (A) 18 units to jar (C) 4 units and we will get 22 units or simply A+C.

When Luchins posed the same problem to a new group of subjects who were never exposed to the first test, they all chose the jar(A)+(C) solution immediately.

This test illustrates that we attempt to use the same tools to solve new problems. This pattern is not just mental, it is also physiological.

Cells that Fire Together Wire Together



Image thanks to AlphaCoders

"No problem can be solved from the same level of consciousness that created it" — Albert Einstein In his 1949 book 'Organization of Behaviour', the psychologist Donald O. Hebb proposes that each time a group of neurons fires together and makes a pattern, those

"TO A MAN WITH A HAMMER, EVERYTHING LOOKS LIKE A NAIL." -TWAIN/MASLOW/ KAPLAN/BARUCH/ BUDDHA

neurons tend to fire in the same pattern again. This pattern becomes a physiological one. Hebb proposes that learning modifies the cellular structure of the brain.

This would suggest that when we learn something, the pattern of that learning is much like the groove in a vinyl record. Thankfully for us this is not the case and we can exist in a state of constant learning, which is essential for

our futures.

Neuroplasticity describes the ongoing change to the brain throughout our lives. Plasticity suggests that the brain is malleable (changeable) and not limited to a fixed growth period during childhood, youth or brain damage. Neuroplasticity occurs when our brains change when something new is learned, experienced and memorised.

For a long time, we believed that as we aged the connections in the brain became fixed. Research has shown that in fact the brain never stops changing through learning, experiencing new things and connecting various ideas. Plasticity is the capacity of the brain to change with learning, mainly at the level of the connections between neurons. New connections can form and the internal structure of the existing synapses can change.

So the pathways forged as described by Hebb, can be overwritten, but this needs to be done purposefully.

Resting on our (Mental) Laurels

Our brains are constantly seeking ways to conserve energy. We are still not too far evolved from the days where our main concern was to stay alive when we had to run from man-eating predators. The brain still holds on to this heritage. In order to ensure survival and conserve energy to survive, most things habitual are stored in the basal ganglia.

Routine shortcuts include punching in your phone password or setting the alarm at night or simply locking your door. You know when someone asks you "Did you put

the alarm on?" and you sometimes can't remember, but when you check you inevitably did so? This is a primed embedded habit. This is your brain at work saving you precious energy.

Almost 50% of what we do every day is driven by habit, many things we do, we do on autopilot.

As we saw earlier the Einstellung effect is one of the ways our brains find a solution as efficiently as possible, even though it might not be the most appropriate solution.

In a study called "The Neuroscience of Leadership" Dr David Rock and Dr Jeffrey Schwartz tell us that even when we enjoy new experiences, create new connections and digest new information eventually we will ignore these after a while, once we become habituated to new stimuli.

It has been proven that new experiences in relationships for example, such as new restaurants, concerts etc. lead to releases of dopamine and endorphins and thus keep the relationship feeling fresh and exciting.

Once habituated to anything in life it becomes difficult for us to change. The more entrenched our habits or neural circuits become, the more our minds resist new ideas.

We experience this as we age and we follow a set mental routine. Our brains treat new ideas or experiences as threats and trigger our amygdala, the fear centre of our brains (the amygdala is the reason we are afraid of things outside our control).

"The human mind treats a new idea the way the body treats a strange protein, it rejects it." — P.D. Medawar (Biologist)







AIDAN McCULLEN

UNDISRU PTABLE

A MINDSET OF PERMANENT REINVENTION FOR INDIVIDUALS, ORGANISATIONS AND LIFE

WITH A FOREWORD BY DEE HOCK,
FOUNDER AND CEO EMERITUS OF VISA AND AUTHOR OF BIRTH OF THE CHAORDIC AGE

WILEY

Why Digital Transformations Fail

"To change the government, you must change the minds of the governed." — Ross Ulbrich (Founder of The Silk Road)

There are two essential "forces" in every organisation.

There are the mechanical forces, business models, processes, strategies, regulations, policies and procedures.

Then there are human forces, the people who make the mechanical forces happen.

When these forces are out of sync problems arise.

According to Forbes, 7 out of 8 digital transformations fail.

Despite our best intentions. we tend to apply what we know best (we use a hammer) to situations that require new thinking (when we may need a new tool). When most companies initiate transformation initiatives, they begin with new policies, new procedures, new strategies. They begin with the mechanical side of business. We hope this will mean we don't need to deal with the much harder transformation, which is the people part.

This is why according to a survey by Fujitsu, global scale digital change initiatives failures cost on average €555,000. We try to paper over the cracks and hope digitisation of old models might be enough to start the snowball effect of change. This may come in the guise of a new website, the use of a new collaboration tool or even a 1 or 2 day strategy retreat. The latter is akin to going to the gym once per month and expecting results.

We forget it is the people who make strategies stick. We cannot change business models without first changing mental models.

Digital business models require different measurement than their predecessors, so to make them work we need new metrics. New metrics mean new reward and recognition structures.

Think about trying to make structural changes to an old house, sometimes you might be better building a brand new house, sometimes you may need a new foundation. You cannot hack on a new piece and pretend it will all work out fine, although this happens all the time.

While some efforts are truly legitimate and fail due to our unconscious bias to use old solutions to solve new problems, many other initiatives fail because they are not

fully embedded by senior leadership.

They are but lipstick on a pig and the organisation is often just rearranging the deckchairs on the Titanic and often are blocked by transient power brokers for a variety of reasons.

Unlearn, Relearn

To change what people do, we must first change how people think. To change how people think we often need to teach people to unlearn before they relearn. If people are unwilling to unlearn and relearn we need new people.

The way society is structured we learn in school to get a college place. We learn in college to get a job place. We learn in the workplace how to keep our place. However, we often stop learning.

Most people get trained to do one job and their learning stops. It is partly the responsibility of the organisation to facilitate continuous learning, but it is wholly the responsibility of the individual to make learning a priority.

UCLA's Bhagwan Chowdhry says "The distinction between work and learning might need to become more amorphous. We currently have a dichotomy where those who work need not learn, and those who learn do not work. We need to think about getting away from the traditional five day working week to one where I spend 60% of my time doing my job and 40% learning on a regular basis."

In a business environment of mass disruption and exponential change, we must learn how to unlearn and relearn. We must learn how to think critically. We are often prisoners of our unique growth experiences and the inescapable biases that surround us. The strategic thinker of tomorrow is she who challenges her own thinking, questions everything, engages all the senses and makes holistic decisions.

Alvin Toffler put it best in his 1970 classic book "Future Shock",

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn." — Alvin Toffler

More about Aidan: www.thelnnovationShow.io Buy Undisruptable: https://bit.ly/undisruptablebook

THE GLOBAL COMMUNITY MAGAZINE

INSPIRE G





DAMIANOS CHARALAMPIDIS

Damianos Charalampidis has a track record in Business Management and Operations, serving as a C-level executive in all 3 mobile operators in Greece;

He has also extensive experience as Group COO of National Bank of Greece and a Group CDO of Alpha Bank leading Digital Transformation programs, Innovation and digital sales.

He has extensive corporate governance experience being a member in Executive Committees and BODs for many years. Today he is a BOD member at Pankritia Bank and a freelancer advisor to several companies.

He is Charted Engineer (C.Eng) and Fellow member of IET (Institute of Electrical and Technical Engineers).



EXPLORING HOW BANKS ARE TRANSFORMING INTO INSTINCTIVE ENTERPRISES

CECILIA PAOLINO-UBOLDI

Successful professional with an impressive track record building, developing and managing global strategic alliances and partnerships for S&P 500 and FTSE 100 companies. Fluent in 6 languages: Spanish, English, French, Italian, Portuguese and German. Great relationship builder, passionate about connecting people, enabling businesses to achieve their goals by optimizing their network of partners and customers.

Broad commercial acumen, always looking for ways to improve the client service offering whilst ensuring revenue and margin growth supports the business strategy. Strong cultural understanding, having lived and worked in a number of countries around the world. Proven track record of exceeding targets and expectations.

Outstanding communicator and influencer with remarkable interpersonal skills.

What a decade of disruption we have witnessed in the traditional banking industry. Especially when it comes to payments, wealth management, lending, and retail banking. A change that has not only impacted FinTech start-ups but also companies with a massive reach like Amazon Google, Apple, Facebook, and Alibaba, who have leveraged their omnipresent reach, expanding further their technological capabilities while posing a stark challenge to competitors.

From the different segments that comprises the FinTech industry,
Payments, have by far the largest transaction volume. Digital payment
methods are a game changer in the payments industry that has been
traditionally dominated by debit/credit cards, cash, cheques, and prepaid
cards. The booming of the global eCommerce market and the surge of smart



devices have been major factors in the rapid adoption of digital payments; Weaving payments into the very fabric of the society interactions and network.

It is about the convenience, transactions cost reduction and the speed in which with a mobile phone, tablet, or digital wallet you can make instant payments.

The alternative payments market which in the US is dominated by PayPal, Venmo, and Square, is seeing also companies like Google, Facebook, Apple, pushing to get into the market. As well as banks such as Wells Fargo and Goldman Sachs.

It is expected in the US that the total Digital Payments transaction value will hit the US\$1 trillion mark by the end of this year and globally around US\$8.2 trillion in 2024.

Plenty of innovation around Digital Payments has arisen over the past few years and retail payment has gained traction in areas including:

- Mobile wallets: a virtual wallet that facilitates individuals and businesses to send and receive money through mobile devices.
- P2P mobile payments: it allows individuals to transfer money from either their bank account or credit card to someone else's account through a mobile phone.
- Foreign exchange payments: companies that allow consumers to pay for family and friends around the world or to transfer them money using their mobiles, tablets, or computers.
- Real-time payments: payments that are initiated and cleared nearly instantaneously, irrespective of the payment instrument used.
- Cryptocurrencies: nontangible payment methods that exist only in electronic form.

The infrastructure needed to support these currencies at scale is still in development. Examples include Bitcoin,

Ether, and Ripple.

It is expected that by 2024 Digital Payment transactions will reach a value of over US\$8bn. With an annual growth expectancy in the region of 18.8% for the next three years. With mainland China due to remain the biggest market for Digital Payments with over 42% of the global market share.

If we were to count the US with Mainland China together they would account for over 60% of the global transaction value by 2024. Far behind, in third position is the UK (US\$343 bn) followed by Japan (US\$260bn) and Germany

(US\$184bn).

In the sphere of Digital Commerce, growth is expected to come from the increasing user base: and is expected to go from 2.5 million users in 2017 to 4.6 million by 2024. While not much difference is expected in the global average transaction value per user for digital commerce, (from US\$855 in 2017 to US\$887 in 2024).

However, the average transaction value per user on Mobile POS Payments should grow exponentially from US\$1.100 in 2017 to US\$2.255 in 2024.

By 2014 the Chinese Digital Payments will surpass US\$3.4 trillion.

Last month I had the pleasure to be invited to the European Digitalisation Forum, organized by OKTO in Athens, Greece.





Fifty leaders of organizations throughout Europe, together with thought leaders, Futurists, Fintech and Payment Experts met to discuss the implication of the Digital disruption that is changing the world in which we live in. How new technologies have made the market much more competitive, driving new customer's expectations and how organizations must not only provide superior experiences for their clients but also deliver in agile and clever ways.

I was very impressed with the presentation given by Damianos Charalampidis, former COO of the National Bank of Greece and CDO of Alpha Bank, discussing the need for change and how traditional banks become future ready. So, I asked Damianos to kindly share in this article the key points of his presentation during the forum.

Since 2008 and through the financial crisis, the Greek Banking Sector has been massively consolidated and decreased in all metrics:

Number of Banks from more than 40 to 13 today, they suffered a 50% decrease in personnel and branches, but they also lost all its profits and a significant percentage of their deposits forcing them to change their operating model to become more digital. Apart from this, Digital transformation necessity driven by three main forces:

1. Customers are expecting it.

The Digital-savvy customers, want the service "Here and now!", they are Hungry for choice and hyper-informed, and they are willing to switch banks based on customer experience.

The Market pressure is increasing.
 Digital attackers becoming credible threats.
 Revolut and N26 jointly have more than 500k

customers in Greece and they have both publicly declared that Greece being a top-5 priority market. There is also new competition from domestic new entrants like Vivawalet / Praxia Bank, OTE, OPAP, Optima and few others.

3. Technological disruption is already happening

Transitioning to omni-channel digital banking, including among others digital onboarding, digital sales and services, as well as advanced analytics and big data.

So, across the globe a digital transformation journey in the

Banking Sector is taking place. But how one can define what a Bank ready to face the future would look like? We believe that a Digital Bank should have the following ingredients:

- Customer Experience (CX) should be in the center of all activities
- A Customer can interact with the bank anytime,





anywhere

- The Branch network is focusing primarily on customer advice and high value-added services rather than transactions
- On-boarding of a new customer should not take more than 20 minutes
- 80% of key product categories must be available online
- New products will be introduced within weeks from inception
- Digital technology and Al having widespread use across the bank

Let me try to analyse further some of these basic building blocks of the future ready Bank.

Putting customer experience in the center, ultimately changing the culture and the way we work in the bank. When competition starts to rise, you have to make sure that CX becomes a clear differentiating factor. In order to do it, one has to pursue the following steps:

- CX must be a top priority of the Executive Committee.
- Should be able to measure it and define KPIs and targets around it.
- Have Governance with a structured approach and cross-functional processes.
- Lastly, to have a dedicating highly motivating cross functional team which in collaboration with all BUs should act as the coordinator of all improvements need to take place in the

organization.

During COVID-19 lockdown, an unprecedented increase of digital channels took place. We all know the devastation that this pandemic brought to people. One of the very few positive things that gave thought to all industry sectors is the massive increase of online activities. In Greek banking, it helped the online channels (web and mobile banking) to become the primary interaction means with the customers.

Only by looking some of the publicly announced data of the some the banks you can see this rapid shift of monetary transactions from Branches to digital networks (e-banking,

ATMs and Payment machines). By the begging of 2017 more than 30% of monetary transactions were taking place at a cashier level. Today this figure is less than 8%!

Mobile banking is becoming the king of all channels in terms of a year-on-year increase. We are seeing 40 to 50% increase year after year! It is estimated that for all banks more that 85% of their transactionally active base, has become Digital by now!

I also need to mention that the majority of traditional Banks actively promote digital wallets to its customers. Apple pay, Garmin Pay and Android Pay solutions are already offered and adapted by almost a million customers across all Banks.

Today all four systemic banks have started already to offer one form of remote customer on-boarding for both retail and corporate customers.

Alpha Bank for example has a complete simplifying onboarding offering for retail customers either visiting the branch or doing the process remotely. This includes identification, customer file creation, certification, opening of current account, debit card issuing and e-banking subscription.

The Key innovations introduced were:

- Using tablets as opposed to desktop PC (tablet camera replacing scanner, e-signatures on tablet screens replacing paper signatures)
- Minimum data entry
- One single approval
- Completely paperless

The Key result achieved were:

• From 55+ minutes on-boarding time to less than 20

minutes

- From 5 documents required to up to 2 only
- From data entered in 5 distinct systems to 1 unified interface
- From more than 10 signatures by customers to 3 e-signatures and non in the case of mobile.
- From more than 20 approvals to one electronic approval and non in the case of mobile.
- From more than 30 pages printed to fully paperless

Similar results achieved also for business customers where the transformation was even more important.

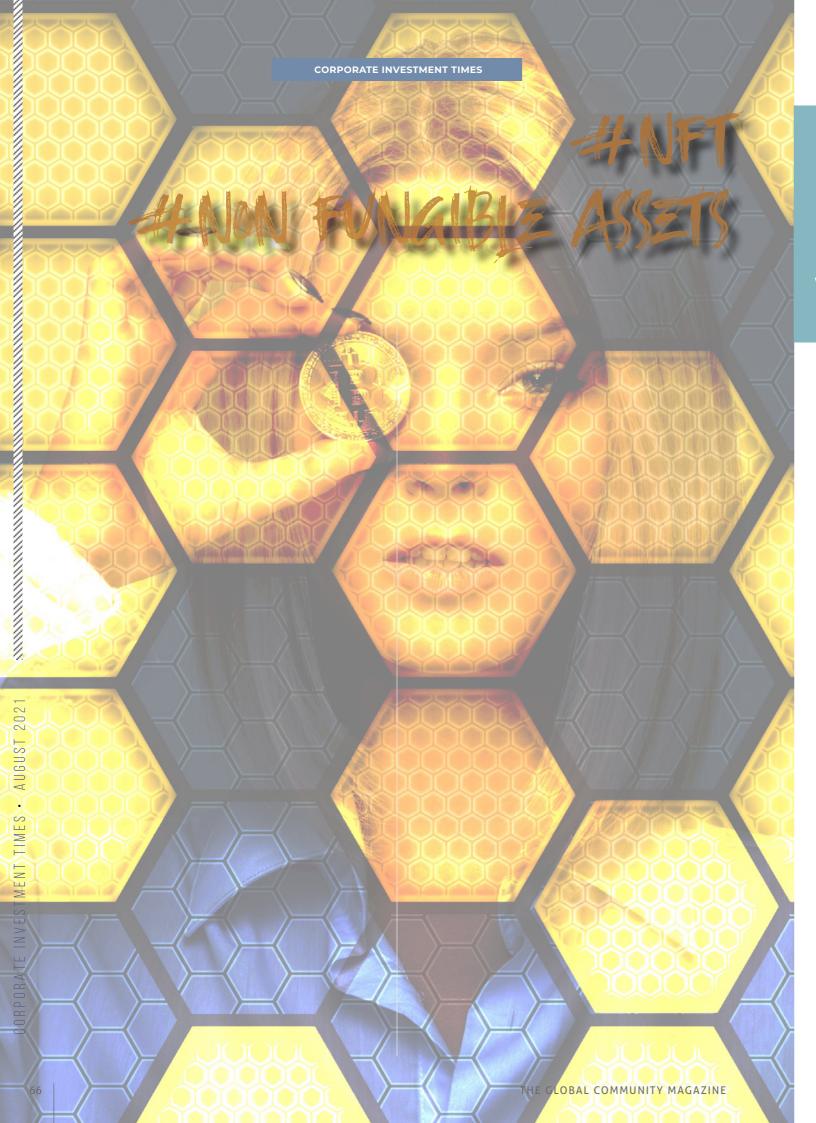
All these results were implemented by adopting the agile methodology, which significantly accelerated the time-to-market.

Today all 4 systemic banks have either launched or are going to launch remote consumer loans and Credit cards improving the approval time from days to minutes. Some of them have already started to offer same products for business too. Advanced Analytics and Artificial Intelligence have started to be used addressing Marketing needs as well as eliminating the risk for loans.

The digital transformation journey has started across all the globe and across all industries. When is it going to end? I don't believe we are going to see the finish line ever. I think that what we are going to see is the formation of a constant improvement process which is going to become a standard procedure of every organization.

 $\ensuremath{\mathsf{A}}$ constant adaptation to whatever technology and brilliant minds brings.





BEYOND NON FUNGIBLE TOKENS, GETTING AHEAD WITH NON FUNGIBLE ASSETS

ADRIAN NICULESCUTM

Digital Transformation Expert |
Keynote Speaker
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Estate Entrepreneur
Music Producer

It is a known fact that the NFT's are a big deal right now, but there are some important limitations to consider. For example, let's say that you purchase an "unique" video which is hosted also on Youtube, and anybody can view it, and even download with a free software found over the internet. Or you purchase a song as NFT which is also streamed for free everywhere.

At the end of the day you purchase a data entry in a blockchain, and not the asset itself, which can become very frustrating. Of course, the majority of the NFT buyers don't realize this because they don't know actually how a blockchain work & what they are buying.

There are countless discussions around the copyright. So I may have a picture of you, I can transform it on an NFT, and sell it on a platform. You will not be aware of this, I will make a profit, if I will sell it, and maybe some passive income from royalties in secondary sales, but you will not make a dime.

To make a comparison, when you add a song in Youtube



which is not yours, it is immediately flagged, and even blocked, because it is recognised as being the work of somebody else. With the NFT's in most platform there are not implemented AI engines which could spot something like this. Of course, I gave the example of a centralized platform, and NFT's are part of the decentralized world. We see huge amounts "invested" in overhyped NFT's just that



it is interesting to see if you will be able to cash-in on them in the near future or not. Also, there is the big problem of storing NFT's. What will happen with them if the platform hosting your NFT's will dissapear tomorrow? Will NFT's be lost for good?

The market overall is in so much hype that nobody is thinking about this. There is the impression that the NFT's will just grow in value overtime, which is the real sign of a bubble. This is based on the human's habit of collecting things, and memorabilia imported in the digital metaverse. With collectibles, the car your father wanted to throw in a junkyard 20 years ago may worth a fortune today, so you are thankful that it was somehow kept around the house. At the end of the day, there is one very important question which is still not answered: what youy are really buying? Just some digital bits, or ... a real asset, even if it is just digital. We see young folks eager to pour their savings into NFT's way before putting the down payment for a house which becomes the second or third priority for them.

I believe that most of them didn't remember the 2008 -2010 financial crisis, and are in a state of denial.

Of course they hope that their NFT could be sold anytime for a hefty profit, which can be true until a certain extent.

We need to think more and more on the assets connected to the NFT's. If I want to invest in an NFT I also want to own the asset connected to the NFT. If it is just a picture, a song or a piece o digital art available anywhere, even in print shops, I don't see the value in owning the blockchain

It is like going to the restaurant, and paying to smell the food, without the posiibility to touch, and eat it. I believe that here lies a very big opportunity for startups to solve the problem of linking the assets with their equivalent



NFT's. Still, the market is not educated, I get that, I can live with it, but in reality, there are so many resources. Of course, you could ignore them, but usually both in business & investments, what you don't know hurts more than what you know. Unfortunately, the current NFT ecosystems are more focused on the tokens, and not on the assets associated with them.

When I say assets I don't say stocks, I am referring to the pieces of art as assets because for creators they are assets, revenue streams. These revenue streams are active at the first sale, and become passive if they will earn a percentage from all secondary sales. The lack of linkage between the tokens, and the assets can be the trojan horse keeping the NFT industry far from the real mass adoption. That's why, there is a new class of assets called Non Fungible Assets addressing exactly the connections between the token, and the "thing".

This should have been the initial approach to NFT's but let's not forget that the digital fever where all people stare in their phones for hours at any moment of the day has permitted the shift of focus from the asset to the token. Let's not forget that today it is easier than ever to create a token, and put anything in an NFT form which also opened the floodgates for the non-ethical players to exploit the existing loopholes.

I would advise first any NFT buyers to make a personal due dilligence on what they are actually purchasing because it is much better to be safe than sorry. And also to look first at the asset, and after that at the token, because the token is the commodity, the real value is in the asset, and not in the token.

It is important to consider if the Non Fungible Tokens, and Non Fungible Assets will coexist or everything will migrate towards NFA. We also have to look around at the Meme culture, considering that people seem to like to support meme causes, not to care a lot about the implications in their financial future.

People tend to value more the entertainment than the common sense, that's why the silly ideas prove to be potentially very, very successful, without proper reasons.

Of course, we are not here to judge, but to educate, raise the awareness, and show the better ways of doing things. This market will surely evolve, it is interesting to know how far it will go, and in which form.





PROF. DR. MILAN KRAJNC

An expert in solving the challenges that arise from the interaction of different personality types within a company or organisation.

Trained for personal advising, psychology, marketing, negotiation and lobbying at organisations of any size and scope, from local to national levels.

(This record is my reflection on my continuing role in the evolution of the world, the search for meaning, and a kind of unification of everything I have done so far.)

I will begin with my story. Right now, my biggest source of income is teaching people to find their purpose in life.

To do this, I take them safely back to their childhood and help them remember their dreams. After all, everyone who comes into the world knows exactly why they were born, but with all the social pressures and false role

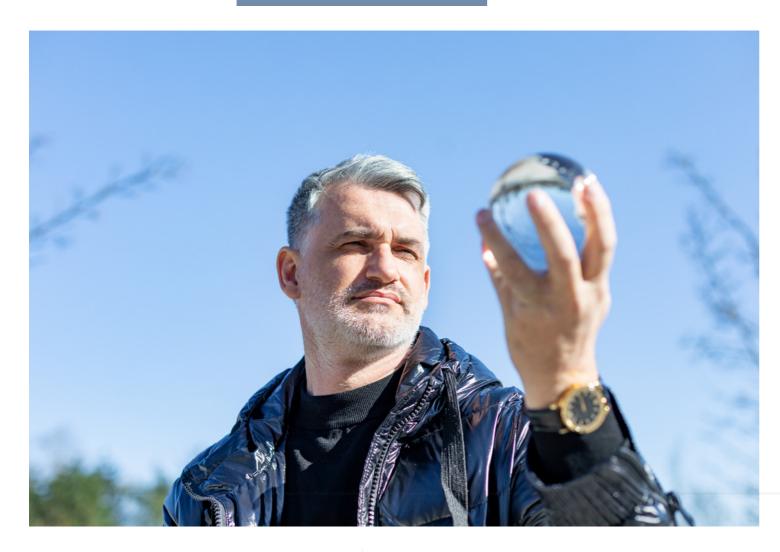
DYNAMIC SPACE COOPERATION COUNCIL STRATEGY

WWW.SIRIUS.SI

The Covid 19 pandemic has left us very isolated, but not yet enough to find our purpose in life. Many people have said that they even lost the meaning of life during the isolation.

I personally believe that they have not reached the end yet. Indeed, the time ahead is important for all of us, humanity must finally find the meaning of its existence if we do not really want to destroy ourselves, and only a few may be able to escape into space because there will be no more living conditions here. Therefore, it is time for the world as a whole to first ask itself what we want with Earth and how we want to cooperate in the universe. Regardless of the stories of the beings in the universe, we need to be aware that we are certainly not alone there, and we need to be aware of that.

THE TIME HAS COME FOR US TO RETURN HOME



models, the true meaning of life has become blurred. Well, and now, during the pandemic, I have also delved into the darkest depths of my childhood. I remember two things that somehow stuck with me the most, and in a positive way.

Art and the universe.

When I look at it today, I started to be very involved in art, and during the pandemic, apart from the fact that I have already published almost 400 books, I have done a lot in the field of music poetry, and I even received an honorary doctorate in art in Monaco a few months ago.

So I can say that I have pretty much put that part of my childhood behind me and paved the way for my potential to unfold. Although painting was a part of art in early childhood ... and there is still no mind or ear for it ... is it still waiting for me?

Well, I have not had much to do with the universe in the last 20 years. I remember taking the first books from the library "hidden" because I was ashamed of what others would say, they were all on the subject of space. I also studied physics and got a degree in astronomy, the whole enterprise was called Sirius and then I kind of got lost.

But lately I have often wondered what role the universe has played in my development. Today I can say that it has given me a lot, especially in my personal development. I look at things very comprehensively, I see connections that seem illogical at first glance, and I do not limit myself anywhere. But at the same time I ask myself whether my future profession will have anything to do with the universe.

And lately, I feel like it's becoming more and more so. You see, I did a PhD in management, where I came up with a new thesis about local community organization that can be applied to a country or a larger region. So I am talking about developing new strategies. Just as I give new meaning to people's lives based on real potential, I do the same with the local community to develop a new purpose and strategy based on real, untapped potential.

So first you look at where you are coming from to know where you can go. But now I feel like I am going to be able to connect all this knowledge to the universe.

Because the world is opening up more and more into space, but we do not have a strategy for what we are going to do with this and that.

So before we develop a global strategy for space

engagement, we need each nation's local/national strategies for space engagement.

Indeed, each nation needs to look deeply into its history, where it really comes from and how it has already encountered the universe in its history, and on that basis set a new direction for development. Perhaps in doing so, many nations will discover that they did indeed come from the universe and that now is the time to return to it.

I myself was aware that my task is to combine ancient and modern knowledge, because it is on this basis that my nomination for the Nobel Prize in economics is based, to combine economic processes with natural processes as they once existed.

So I can say that my next step could be one that is fully connected to the universe to help individual nations finally break free and return to where they came from.

I am not talking about a science fiction story here, it's a completely realistic way of thinking. After all, as a technician and physicist, I basically started talking about certain things when I knew how to logically link them, and now all I have to do is go home, completely logically.

If you got a special message, write me at milan@sirius.si

