agora

My Life My Business My World

Exploring the outer reach of technology and personal development

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Executive Summary

An Initiative of:

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This report encapsulates some of the key takeaways and recommendations emerging from two days of INTENSIVE brainstorming on the new trends reshaping the economic, business technology and geopolitical scene and assesses their impact on business, personal lives and on the ways, we relate to the world.

GEOPOLITICAL TRENDS:

Geopolitically we are living a very unusual period. In the quarter century between the end of the Cold War and the beginning of the Arab Spring in 2011-2012, the United States had unparalleled military and political dominance of world affairs. In that context, it was incredibly costly to try crossing the US and most countries stayed at bay. Consequently, the US was able to maintain a degree of global stability and the greatest alliance system in the history of the world (including 18 of the top 20 economies as allies). This enabled the US to dominate security and political affairs, with a military presence in Asia and Europe perceived by and large as helping to maintain stability.

The turning point has been a combination of the global financial crisis, fatigue with costly foreign military adventures with disappointing results, a growing sense of the limits of US ability to shape global events, and the rise of China as a challenger for the global power status coupled with fast economic growth and technological developments.

We have entered a phase of high volatility with two macro trends:

1) A substantial and rapid decline in confidence in the United States and in the security role that it cannot play going forward.
2) A substantial change in the material capacity of China in political and strategic affairs. China's exponential defense spending and fast-paced military modernization, its maritime power projection capability build-up, have now become a major concern and focus of attention for Western military strategists. China is now the number two defense spender in the world after the United States.

This is producing a series of dynamics:

- *Hedging behaviors:* for instance, Israel's Prime Minister Benjamin Netanyahu has strengthened the relationship with the Russians, hedging against the US uncertainty. The China-Japan relationship has significantly improved, while Beijing and Moscow are strengthening their tactical economic and military cooperation. *Rapid militarization of the US/Russia relations* which is very dangerous
- *Substantial and rapid deterioration of China/US relations in strategic and political terms* spilling into the trade and economic space. What we see today is a full-fledged containment policy set in motion by the Trump administration to blunt China's economic, technological and military rise.

This is producing a politicization of economic ties and trade, a weaponization of technology and a shift from a win/win type of framework to a win/lose framework. Even worse, we are seeing a **return of proxy wars** - the most pernicious type of warfare.

Over time, we are heading towards a new form of bipolarity between the US and China, the two global "shaping powers". However, there is a true lack of understanding of what it means to be in a world where the two top powers are viewing themselves competitively in terms of strategic and military affairs and are yet deeply integrated in economic affairs. This is very different from the cold war. China is a fast-emerging super power with a different system and values from the Western powers that have established the international institutions after WWII.

As it is clear that China will not converge to the Western system, the issue is to manage the coexistence of these two power blocks with equal critical mass, with systems that have different logics, modus operandi, and different objectives. The Chinese wonder why the West is asking them to change their system when they have never asked the West to change its system.

<u>There is a series of flashpoints around the world:</u>

- South China Sea Woody Island issue (Yongsing Island for China, Phu Lam Island for Vietnam), where China built missile systems and the US came very close to confront it militarily.
- Taiwan attempt at Independence is for Beijing an absolute "go to war" issue.
- The Korean peninsula, where we came close to a large-scale US military action against North Korea last November.
- In Europe, Europeans and Russians are engaged in high risk encounter and near-misses over the Baltics.
- In the middle East there is rapid buildup of tensions around Iran which is broader than the US China issue.

In the past 25 years these tensions would have been quenched by US power, but China does not have the infrastructure or the capacity to play a similar role, suppressing or deterring conflict. Even though there are reasonable chances to avoid a strategic war, it could still happen, and we are living in very unstable times.

It is debatable whether ASEAN countries are in the Chinese sphere of influence. Indonesia for instance is not interested and taking independent actions. On the other hand, Singapore is clearly doing a lot to be involved in initiatives like Belt & Road. There is a form of active contest that China seems to be winning, but this is not a foregone conclusion. For instance, fifty percent of the world trade flows through the Strait of Malacca on container ships. That trade is secured by the U.S. Navy and its allies. Will the US walk away from that role? With what consequences? China cannot secure that Strait at this stage; they do not have the naval capability. Will the US maintain that security presence when Singapore and others are saying that they are in the Chinese camp now?

Have we moved back to the realities of spheres of influences, with countries in the middle hedging their bets? A big part of American strategic thinking is to resist this notion. As of now, the United States seems to be very assertive, risk-taking, pushing back and dominating by not accepting the idea of a sphere of influence. History shows that spheres of influence are incredibly dangerous and volatile.

BUSINESS TRENDS: VENTURE CAPITAL, BREAKING BARRIERS AND MONOPOLIES…SLOWLY

The Venture Capital industry is changing, and the pace of change is accelerating.

1) *More money is available*, overall, and the typical investor landscape has changed with more and more corporations getting involved. In particular, technology companies, including Chinese giants, are looking to buy innovation developed outside of their ecosystem to feed their own growth or to take control of potential competitors. There is however a risk for the VC industry as tech giants are distorting the field and monopolizing innovation. The top five US tech companies (Apple, Facebook, Amazon, Microsoft and Google) had $350 billion in "dry powder" investable funds as of mid 2018 and $107 billion in Private Equity in the USA. In China, two thirds of the Unicorns have significant investment from the top 4 or 5 Chinese technology companies.
2) *Size of the deals*: Valuations and opportunities are changing with, for instance, Softbank's $100 million Vision Fund and Sequoia's $8 billion fund, and on the other side, the growing importance of seed funds and accelerator programs that allow much smaller investments that can make a big difference, in particular in emerging markets where these new funding sources have empowered a new generation of startup investors.
3) *Geography*: Silicon Valley used to be the center of the VC industry and the model to follow. "VC hotspots" have been multiplying around the world, turning into very vibrant --and increasingly specialized-- ecosystems for startups and innovation, whether it is China, India, Israel, Singapore to some extent, etc.
4) *ICOs and Token sales* are one of the most significant disruptions recently. 2017 was the first year during which more funds got raised through token sales than through Venture Capital. ICOs go beyond crypto currencies and they are now a very important way of funding start ups and projects. Tokenization could be a big opportunity in providing capital to grow without having to submit to the vagaries of capital markets that an IPO would create.
5) *VC is becoming more diverse in nationality and gender* which is changing the prevailing tendency to invest in known types of founders and industries. The model is changing.

Case study: India

India is seeing a second wave of entrepreneurship. In 2015-16, there were more or less the same number of new start ups in India than in the US. The bottom of the pyramid had enough startups and the top had enough venture capital (95% foreign funds). The middle, the institutional capacity - good accelerator programs, enough seed funding capacity and very strong networks - to support the start up ecosystem, was completely missing. In this second wave of entrepreneurship, a lot of gaps are being filled. Enough seed funds with good accelerator program have emerged, Founders quality has increased, investors are wiser and capital efficiency has improved.

What needs to happen now: the share of the domestic capital and corporate venture needs to increase. The number of M&As and exit opportunities are is still too low for a market that large. One should note that India has 11 unicorns out of which 9 are not profitable.

LATAM Specifics: VC models tend to not be as effective as private fund models in LATAM and South America because of the prevailing family structure. The model of investing is also dramatically different as the tendency is to want to control the company and squeeze the profitability out of it. It is changing slowly though. There are a lot of initiatives throughout the region to change the model. There is a shift in the mindset.

TRANSFORMATIVE AND EXPONENTIAL TECHNOLOGIES

The present unfolds out of the interaction of multiple fast and slow processes. What looks like sudden change is actually driven by deep, slow-moving, forces passing unnoticed through the zeitgeist. An understanding of the structure of this interaction helps identify and understand deep trends in order to evaluate challenges, identify opportunities, avoid surprise and develop strategy. It also provides a context for understanding one's personal place in this exponential moment – and one's responsibility to the future.

Example: Some of the fastest changes today are happening because of changes at a lower level. In 1969, Neil Armstrong lands on the moon and the first microprocessor is built the same year. This is not a coincidence; the two events were directly related. With the Cold War – a result of a conflict at the governance level (lower level) - Kennedy promised a man on the moon by the end of the decade. NASA needed computational unobtainium to get rockets to the moon, and went to Silicon Valley asking for solid state electronics. NASA and the US government put a lot of money into getting the missing element to get rockets to the moon. The result was at the infrastructure / commerce level (higher level) with the advent of the microprocessor about a decade ahead of when it would normally have been invented.

Innovation is a path dependent conversation: Henry Ford in the late 1800 had the vision of a horseless carriage but was struggling to figure out how to power it. We take internal combustion for granted but at the time there was an argument among multiple players. Edison was proposing the electric bus which failed. In the early 1890s, Ford was proposing ethanol because he thought gasoline was too scarce even though it was more powerful. Most often technology is shaped by the deepest layers that nobody is paying attention to. 200 milion years earlier the Texas oil formations were laid down and in 1901 the Lukas gusher was discovered producing 100'000 a day for nine days until they figured out how to shut it off. With this discovery people realized oil was abundant and Henry Ford created the Ford Model T, powered by gasoline, in 1908. The debate was thus decided not at the level of commerce or technology but at the level of nature.

When the lower layers move faster than the upper layers you have revolutions or catastrophic events: For instance, in 1906 the San Andreas fault moved very quickly and there was an earthquake in San Francisco. That fast move at the bottom led to a big impact at the infrastructure level which was the fire that leveled most of San Francisco. When things move very fast at the lower layers, it creates chain reactions at the top layers. The San Francisco quake and fire had an impact at the commerce level with the panic of 1907. Actually San Francisco had burnt down already in the late 1890s, rebuilt and created the most advanced fire department at the time. Insurance companies thought that people had learnt their lesson and they overinsured, thinking they would never have to pay out. When the quake hit they had to pay. At the time the United States was still on gold standard and the de facto Central Bank was the Bank of England. The gold that had gone to England during the gold rush had to be brought back, but the Bank of England slowed down payments which led to a liquidity crisis which led to the panic of 1907 and the creation of the Federal Reserve Bank. So when something comes down from the lower layers moving fast, the results are highly unpredictable.

Everything that exist in the world is an intersection of fast - upper - and slow - lower - layers. The fastest layer is fashion, changing rapidly. Commerce changes in a slower manner, even slower is infrastructure, then governance, and even slower is culture.

The normal order of things is that the upper layers move fast, and the lower layers move slowly. Revolutions happen when that order is reversed. The fastest changing technologies are most often profoundly shaped by the deepest layers that very few are paying attention to. The slow-moving trends are usually more important than most realize as they set the context for fast change. Fast layers learn, propose and absorb while slow layers remember, dispose and integrate. Fast layers tend to be discontinuous and innovative while slow layers tend to be continuous and constrained.

Fast change gets a lot of attention, but slow innovation has extraordinary power. It is crucial to identify the right challenge and plan for an "insurance policy" even though it might be much longer term.

Cybersecurity: What do you do when reality trumps science fiction

Despite the billions spent on cybersecurity we seem to be losing the battle and not solving the issues at stake:

- *Lack of security patching*. Cyber-attacks on computers have been going on for a long time. Unfortunately, security patches are either being released too late or, the attacks still affect a large number of victims as the patches are not installed, not compatible with the operating system, etc…
- *Phishing attacks*: using the user to undermine security. Phishing is the "vulnerability that could never be patched, only the impact can be contained."
- *Ransomware*: the first generation of ransomware, was closer to "bluff ware". However, with the expansion of IoT these types of attacks will inevitably keep increasing.
- *Mobility*: More and more personal devices are being allowed in by companies and organizations endangering the security perimeter of these entities as they do not own the devices or control them and cannot force the user to comply with security guidelines.
- *Expansion of the platforms*: Attackers are moving from emails-based attacks to text messages, social media and even app downloads.
- *The responsibility is changing hands*: Many companies are outsourcing more and more of their technologies to the cloud, hosting services etc... More breaches will begin with third party providers.

The Equifax breach in 2017 was a milestone in making executives accountable, with consequences for those failing to take the appropriate steps.

Unfortunately, the cyber security industry continues to blame the victim asserting that solutions to the problems are available, conveniently underplaying the fact that an attacker needs only to find one way into its target, whereas the defender needs to defend every which possible way in. (Utility companies are obviously most at risk even though some are getting wiser. Cyber security vendors need to be held accountable for their message. Testing is absolutely crucial and every organization should be performing security testing. Stricter regulatory compliance is also a priority now.

AI: What is coming next in intelligent machines

AI has now reached a crucial transition point where it is surpassing what experts thought it would be able to do, moving from an era of disappointment with early AI applications to an era of chaos and amazement. Investment in AI continues to grow. "AI is eating software". Every company is becoming an AI company one way or another.

One can think about AI in a linear manner focusing on efficiency gains and cost cutting, or in an exponential manner focusing on how AI is changing all experiences, considering all that can now be done with AI that could not be done before. For instance, Amazon Go is changing the retail experience by managing billing through cameras thus creating a feeling that things are free. Even more importantly, Amazon will be collecting data about customers' behavior and preferences that could potentially be sold. It is about an ecosystem, collecting data and learning from it.

Four exponentials are driving AI:

- *Computing power*: "Computers are getting faster cheaper and better at an extraordinary rate". Following compounding exponentials, AI is moving even faster. In the last two years, AI systems changed from being rule-based built to being statistics based, leveraging the fast-increasing ability to collect data and store it.
- *Exponential growth of data*: Rule based systems do not get better with time (more code needs to get written) but data driven systems get better the more data they are fed. Just a few years ago, there were still certain things that no AI system could do, like telling the difference between a dog and a cat or a bicycle and a motorcycle. Realizing that the issue was Data, the AI community decided in 2010 to crowdsource a solution through a contest to develop a software to analyze and categorize images correctly. A million images were released, and the winner software got a 25% error margin (humans get 5%). In 2012 a new software (now called Deep Learning) decreased the error percentage to 16%. This software was released in open source. The next year the error went down to 10%, followed by 6% in 2014, 3.5% in 2015 and 2.9% in 2016. The capacity to recognize different objects will have an impact way beyond driverless cars and will affect all aspects of business and personal life. For instance, a new software can identify skin cancer better than doctors and also allow for diagnosis for people who do not have access to a doctor. This software is open source; however, Data is becoming the asset. The key is the ability to identify the challenge and match it with AI through data.
- *Exponential growth in the size of these systems*: « Deep Networks » – large neural networks made of a lot of AI systems stacked on top of each other – are now expanding in an almost limitless way the capabilities of Ai systems the more you add the better it gets.
- *The cloud*, which allows these systems to learn from each other.

AI moves in waves, each one bringing additional capabilities previously considered impossible to achieve:

1st wave: the first forty years of AI were rule-based
2nd wave: 1990s saw the advent of predictive analytics, the first wave of machine learning
3rd wave (presently experiencing): cognitive computing. AI is able to reliably understand images, audio video, text. It can read emotions on humans and animals better than the average person. However, computers cannot still understand nuances and meaning.
4th wave: the creativity wave is just bubbling but not yet quite out there. Machines will start to create. They are already designing things, proteins etc.… The Defense Advanced Research Projects Agency is interested in AI systems that can create the next AI systems.
5th wave: physical embodiment. Physical robotics is far behind. Intellectual jobs will be eliminated by AI but not the physical jobs. In New York, plumbers get paid more than software developers per hour.
6th wave: Sentients: AI can detect and fake feelings but now it is also beginning to have feelings? AI is beginning to model itself and is starting to have emotions.

"What will Blockchain ACTUALLY change in the way we transact and do business?"

Blockchain technology was originally created to make bitcoins - a decentralized, self-governing store of value, a self-governing currency, owned by the people who earned it through the mining process where computers have to solve a difficult mathematical algorithm to be awarded a block (in that case a bitcoin token) holding information, permissions and algorithms. The more miners join, the more difficult the algorithms become and the more secure the system is.

Bypassing banks and financial institution is a revolution that will affect all sectors starting with peer to peer payment, crowdfunding, governance, supply chains, file storage, digital rights management, identity management etc...

Bitcoin investors buy into a philosophy where every community is an ecosystem and every ecosystem is a potential economy. The concept is borderless, anti nation state, solely peer to peer. As a difference with the Internet bubble of the 1990s, the phenomena is global and not restricted to North America and Western Europe. As the Internet exists already, it is the next layer that is being built, which is the Internet of value and this is a global phenomenon. Instead of a bubble there is a "robust froth" with micro bubbles bursting. The structure of blockchain as a secured permission-based environment, run by smart contracts with the modicum of value-token placed on top of them, is here to stay, even though some sectors might not use it. The real issue is not bitcoin, it is the store of value – the token – and the fact that you can create value in different formats and exchange them for tokens that represent value in other formats.

Why should we believe in the multiplicity of tokens around the world? In America alone, before the civil war there were over 10,000 currencies. It is a human phenomenon to respond to different value proposition at the same time. They represented regional and local values. When the US dollar was introduced there was an outcry. We are essentially going backwards but this is global instead of regional. This token economy is a system of exchange in which an individual earns tokens and exchanges them for tangible goods or digital value. Exactly like a loyalty program but different by the scalability and the accumulation of new forms of value and heightened value.

Token types will get more complicated, but from a regulatory standpoint for now:

- securities (acting and regulated like stocks)
- utility tokens: like access tokens
- Companies are getting funded through tokens representing tangible products and services.

The good news is that there is a lot of money to be made but the bad news is that approximately 95% of the deals are intentional or unintentional scams.

Like AI, blockchain is a transformative technology, it is an evolution of finance but also a redefinition of value. This movement will force humanity to redefine what it means by value. There were 6.5 billion invested in ICOs over the past year. The exponential growth in Blockchain might be even steeper than AI, because once value starts being generated it only multiplies. Countries are stepping up and regulating as well as seizing opportunities, while banks in most first world countries are not accepting tokens, other smaller countries are stepping up like Bermuda, Estonia, Gibraltar, Liechtenstein, Malta, which are going to play a big role in the new economy for secondary currencies. They're regulating and making the avenues and the platforms that are going to drive this token economy.

The big nasty global battle for Data and what does it mean for us?

« Data is for the 21st century economy what oil was for the 20th century economy ». The recognition of the crucial importance that Data has, not only for AI but for all disruptive technologies shaping the the 21st century economy, is now shaping national policies in all major centers of economic activity in the world.

We are seeing the end of an era that was marked by 2 elements: free market / free flow of data and the general acceptance of the undisclosed trade off between individuals relinquishing – most of the times unknowingly or unwittingly – troves of valuable personal data to social media company in exchange of seemingly free services.

Governments have now come to see that data needs to be addressed and managed as a national strategic asset. Up to now, the big American corporations – the GAFA - have been thriving on advancing the notion that the free flow of data is beneficial to all and that self-regulation by the industry was the best option to ensure the un-impeded development of this growth-driving sector while taking care of privacy protection concerns. The multiplication of revelations about breaches of privacy cases, the sloppiness of social media corporations in fulfilling their obligations towards their constituencies, the exposition of sheer greed leading to turning a blind eye to abuses, have now generated a global wake-up call putting pressure on governments and corporations to face key strategic questions such as who owns the data, who is entitled to its monetization and how, and where should it be stored The lines for this global battle for the data are now being drawn – with tremendous implications about who will control the commanding heights of the 21st century economy.

China has been considering data as a strategic national asset – and dealing with it accordingly - for some time now, its laws stipulate that whatever data is generated in China remains in the mainland. Foreign companies generating or collecting data in China are required to store it, they are forced to build mainland-based servers. Last June, Beijing implemented a new data privacy law as well as a number of new regulations which are, above all, a way to express the fact that Chinese data is Chinese property.

China enjoys two major advantages with respect to Data allowing it to be ahead of the global race for AI and IoT global supremacy. With about 860 million Internet-connected people and a volume of e-commerce unparalleled in the US or Europe, it has the ability to collect data and to leverage it at a scale that neither the US nor the whole EU can match. Hence Lee Kai-Fu, China's Ai Guru, remarks about China being to Big Data what Saudi Arabis is to oil. As the government and its research institutions have unfettered access to this data collected through their own means but also through the online and social media services provided by the likes of Alibaba, Tencent, Baidu or JD.com, and as the leadership has allocated huge amounts of funding to AI development – to the tune of US$ 150 billion by 2030 – Beijing is today well on its way to becoming a prominent world center for AI by 2030.

The European Union has also taken a very protective and proprietary position with respect to Data: the European Union is doing something very similar to China, with some window dressing. The General Data Protection Regulation (GDPR) which came into effect on May 28, 2018, exemplifies the fact that Europeans attach much more importance to privacy than the Americans. The other element is to create a situation where it will become more difficult for the American giants to leverage data because it will require prior authorization, disclosure of use of data and the possibility to withdraw consent. The background of this legislation is the fact that European legislators are fed up with the US domination in the field and that they want to create the conditions that would allow the emergence of European giants, for instance in cloud computing.

So, China and the European Union are both acting to assert the notion of data sovereignty.

The situation is more complex in the United States as the Tech giants have been resisting any notion of regulation and promoting a self-regulatory approach which has proved to be a window dressing

for most of the players to do whatever they wanted in using their customers' data as a source of gigantic profits while coming up with some lame apologies and promises to improve every time they were caught red handed violating their commitments or the law. This has led to an increasingly louder popular outcry and the pressure on Congress to legislate on privacy, use and monetization of Data. As states are now considering taking the matter into their hands given Congress inaction, California has moved ahead, promulgating its own data privacy law which is very much on the model of the European GDPR. This is now prompting companies such as Facebook and its founder Mark Zuckerberg to become the advocates of a federal legislation – in the hope that they will have better chance to lobby successfully for a milder version of GDPR that will continue to leave them a great margin of maneuver in the leveraging and monetizing of data. One can bet that whatever mixed system will emerge in the US will be different from the direction the European are going into and even more different from what China is implementing.

Russia/India: Russia is doing what the Chinese are doing, they are establishing parameters to ensure that data originated in Russia is treated as a a national asset. India is also doing the same, with the Modi government now insisting that data generated in India should remain there. The country is just at the beginning of what will be a huge wave of data generation with internet penetration and mobile phone use increasing at double digit rate and the development of JIO expanding in a dramatic way the generation and transmission of data, as Indian businesses move towards the digital economy and the government makes advances towards the implementation of e-governance.

The relationship between individual and corporations such as google, needs to be reformulated and recalibrated. We are entering a new era in terms of the way data is perceived, managed, protected and used as a national asset. Maybe we should be more worried about data loss than data generation.

My Life: Happiness, Cellphones, Sleep

Can Happiness come from my cellphone

Research is only now beginning to catch up on the impact of smart phone and social media use on people' behavior. Social relationships and social interactions - from close and deep exchanges to much lighter day to day encounters - are critical for human wellbeing and key elements for Happiness. While smartphones keep bringing a number of improvements and new opportunities in our daily lives as well as in our businesses, surveys show that more and more people admit that using their cell phone while interacting socially is leading to lower levels of fulfillment. The drawbacks that smartphone addiction is creating for hundreds of millions of users – and especially children - is generating more and more concern. One important element adding to the detrimental effect of cell phone usage while interacting socially is the negative impact of people's attention shifting between cell phone activity and the social interaction in question.

The convenience provided by our smart phone apps can even reduce or cancel the need for actual social interaction, which in turn impacts negatively on levels of happiness. In terms of social media, Facebook use was shown to reduce wellbeing in a significant way. Studies on text messaging show that the medium is not succeeding in providing moral and social support at the same level than actual person to person interaction. People overestimate the ability to detect emotions via text messages and have a tendency to do away with etiquette and courtesy when interacting via email, text or social media. The effect of phone usage fluctuates depending on the particular context, with a positive impact when smart phone use does not take away from positive social interaction and contributes to enhancing it.The nature of studying and working has changed in young generations, partly because of smart technologies moving away from solitary work towards team work.

Ancient Chinese wisdom says that happiness comes from focus and attention. A common thread through the discussion was around rebalancing and awareness when it comes to technology and time management. At the end of the day, it is not about technology but about being mindful of how it is being used.

My Sleep

As with smart phones, sleep, or the lack of, is now an increasingly acute issue for wider categories of people – entrepreneurs and startup creators top among them. It is now accepted that sleep has a huge impact on performance both on the short and long term. Two issues are at stake: being under-slept and insomnia. As a matter of fact, two out of the top seven complaints people express at the doctor's office, are not being able to sleep and being tired.

Surprisingly enough, Insomnia has no health consequences but is the focus of media advertisements. On the other end, shift work (and its sleep deprivation consequences) is considered by the World Health Organization to be a class 2A carcinogen, primarily in women and breast cancer. The focus will increasingly be on this issue as it is causing real tangible harm.

THE SLEEP FACTS:

- Humans have to sleep an average 5h45 every 24h minimum. "Can't sleep! – Does not exist".
- Perception and reality of sleep are two very different things.
- Sedation and sleep are not the same thing.
- The average individual needs about 7hours of sleep.
- 3 stages of sleep: light, deep and dream (REM).
- People typically fall asleep within ten to fifteen minutes. Falling asleep immediately every night is a good indicator of sleep deprivation.
- A night sleep is split in 50% light sleep, 25% deep sleep and 25% Dream sleep. As we grow older the percentage of light sleep tends to increase. Children get tremendous amounts of deep sleep especially in the first 6 years of their lives. Deep sleep is crucial because it is the moment during which our body generates growth hormones (responsible for protein synthesis, strengthening bones and fighting infection, it also helps in terms of injury prevention). Dreaming is more of a long-term memory consolidation process.
- Sleep is very stereotyped; the pattern is the same every night. When we fall asleep, we go into light sleep. Deeper stages of sleep happen in the first 2-3 hours of our night. About 90 minutes after we fall asleep, we dream and then every hour to an hour and half after that, we have another dream. Generally, 4-6 dreams during one night. If one splits the night in half the first half is largely Deep sleep, while the second half is composed of cycles of Dream sleep alternating with light sleep. Deep sleep is influenced by diet, exercise, regular schedule.

The danger of shift-work or jet lag is that the body has to adapt to a new schedule. It takes about a day for the body to adapt to each time zone that was crossed. All the stages of sleep have to move back into space. Consequently, for the first few nights of a trip we lose the deep sleep portion, hence the production of growth hormone production.

There is tremendous potential right now with science and good, cheap, technology to help monitor sleep and facilitate diagnosis.

The potential and power of "Unsafe thinking"

Faced with extremely rapid changes, human beings get stressed, feel like they have to work double time and also feel like the tools they have at their disposal do not work anymore. We instinctively love to think in patterns and look towards the past to find answers and rely on experiences, case studies etc… In a stable world these tools are useful and guide us forward. In a rapidly changing world this can be extremely deceptive. Even if we want to be more innovative, our brain resists. The most dangerous thing is continually choosing the safe path when we know it will fail.

> Premise: creativity is not a form of intelligence or something you ask for. It has a lot to do with the environment you are in and people you interact with. If you cannot adapt, do not beat yourself up but change your environment. As a leaders it is crucial to make people feel like they belong: You've got to make it safe for people to get unsafe."

Three mindset shifts:

- **Cognitive reframing:** Threat awareness naturally leads to anxiety which leads to moving away from the danger. Cortical arousal leads to stereotypical safe thinking. The idea is not avoiding the fears but to move towards them. A creative leader teaches others that anxiety is fuel for creativity. It is not a matter of always choosing the situations that scare us, but of doing it on some occasions. It is important to pause and realize that something makes you anxious – encourage others to do so.
- **Entrenchment:** We all believe that we are better than average ("Better than average effect"). Entrenchment is the idea that to get good at something and to be innovative in the field, one needs to be an expert in it. It is the moment when ego gets attached to what one knows, when one starts calling oneself an expert. At that moment new information is no longer interesting, it becomes either good or bad. It either fits your model of the world or breaks it. The way to avoid the entrenchment trap is to brand oneself as an explorer and not an expert. To spend time outside our area of expertise, doing something that we are bad at to get out of the comfort zone. Studies show that employees prefer humble and vulnerable leaders.
- **Cognitive diversity /Conflict:** Many Silicon Valley companies have a tendency of not hiring for skills but rather hiring for cultural fit, people who will not disrupt the situation. This leads to not enough cognitive diversity. People who make us comfortable do not tend to challenge us. People with different values, different life experiences, different approaches, tend to creatively solve problems better than groups of people who think in the same ways and may even have more knowledge. We tend to learn from people we do not like. It is important to sit down and include people who may make us uneasy, who do not « fit » in our environment or in our workspace.

Leadership

Many people live in a state of what could be considered as arrested decay, many are constantly changing. A lot of organizations tend to stay static. According to a Bain study, 80% of leaders of big firms believe that their organization is delivering a superior product, meanwhile only 8% of their own customers agree with that statement.

Deloitte surveyed 8000 millennials and asked them the characteristics that the emerging Gen Z considers necessary to be relevant. The survey showed that flexibility, leadership professionalism, creative

thinking and communication skills were singled out as most important, whereas social media, global mindset, technical skills, international work experience, financial skills were considered of secondary importance.

Practical leadership advice:

- Control what you can: "Slowly expand your locus of control with the belief that our actions matter".
- Perform "unsafe" activities: "Leadership is like leaping of a cliff and growing wings on the way down. It is an act of courage". It is an audacious act to do something differently. In the spirit of unsafe activities what is a fear /phobia you have? By slowly and progressively exposing oneself to the object of the phobia, one can eradicate it and then open up more possibilities. Studies have shown that people who got their phobias under control started doing more unexpected things.
- Build your own purpose statement: who or what do you want to serve, how and why? Relatively specific but grandiose in aspirations.
- Identify the obstacle that stands in the way of achieving that purpose statement and what is the one thing that you can do to overcome it. Then map your next steps towards that end in terms of ease of action and how much of an impact these steps will have.
- Remember to encourage and nourish the progress you make in this direction
- Change the environment, provoke yourself: get in motion: you must act your way towards a new way of thinking.

At the end, it is all about Trust

What is trust? Among the definitions:

Jeff Weiner, CEO, LinkedIn: "Trust is consistency over time, there is no substitute for either one of those things".

Sisselia Bok, philosopher: "Whatever happens to human being, trust is the atmosphere in which it thrives". In this ecological model, trust is the glue that holds ecosystems together.

Niklas Luhmann, Sociologist and philosopher, said that trust functions to diminish social complexities by reducing the decision tree. Without trust helping to eliminate a set of possibles choices, we would have to make far more complex decisions. However, it does not mean that distrust makes complexity more likely; distrust is also a way to reduce complexity because then you expect the worst. Hence trust and distrust are not opposites. Rather they are on a complimentary axis. The most interesting types of business relationships are high trust and high distrust. In order to achieve the things we want to achieve we are often in a « trust but verify » situation.

From these various definitions:

- Trust supports other valued aspects of life
- Trust is a context in which other activities occur
- Trust is social, multimodal and backgrounded
- Trust is not necessarily the opposite of distrust: they may be axes that cross rather than the opposites on a pole.

Trust is not a kind of static mindset. What are the elements of trust that would allow it to be dynamic? What are the markers of consistency that are compatible with dynamism and thus would allow innovation? Things like stating what you are going to do, stating your values, accountability mechanisms, internal and external vulnerabilities, accuracy, precision, unselfishness.

Today we are dealing with increasingly unstable, agile, and complex organizations. And that means that trust is both more valuable and harder to achieve. Trust is even more valuable where the services are not tangible.

Trust is now a hot topic. A lot of people are trying to measure trust because trust is value, it is a proxy for other things. There is a realization that the digital economy is suffering from a lack of trust and it is hampering the economic landscape to some extend. We are also seeing a lot of efforts to survey customers (in particular Pew and Edelman). Pew has found that there is actually relatively few institutions in American life that achieve 50% of US population trusting that these institutions will do what is right. Notably elected officials are way down at the bottom. Steady decline over the years. In the last few years a lot of movement around trust in information and truth. According to Pew research, the nature of trust is changing, it will become more fluid as technology imbeds itself in human relationships.

Agora is a two-day annual get-together to help broaden the horizon and stimulate lateral thinking for the new generation of entrepreneurs or who are taking over the family business and are expanding it. Agora is about thinking together and sharing experiences and perspectives on how to leverage the opportunities opened by globalization and the technology revolutions. It is also about creating new, enriching, relationships and generating new business opportunities. In ancient Greek city-states, the agora was a central gathering place where citizens would meet to discuss all the issues affecting the life and the future of the city and to attend spiritual and athletic events.