



BEAUTIFUL TSUNAMI:

UNDERSTANDING LIFE

AND THRIVING IN THE

AGE OF AI

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Thank you for reading this book, I and hope it helps you, or your loved ones.

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“Javier Marti, author of a book about AI and its impact on society” or “Javier Marti, author of the book ‘beautiful tsunami: understanding life and thriving in the age of AI’”

To my father,

Raul Martí Perez,
an inspiring, brave and noble man,
who once ignited the fire of curiosity
and a passion for knowledge
in the mind of a young child.

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"THE ONLY THING THAT IS CONSTANT
IS CHANGE."

– HERACLITUS



INTRODUCTION

Can you do something like "surf a beautiful tsunami", at all?

Artificial Intelligence (AI) is revolutionizing the way we live and work, and its impact is only set to grow in the coming years. As AI and automation technologies continue to advance, they are replacing many jobs that were previously performed by humans, leading to a decline in wages and employment opportunities for many workers.

In this book, we will explore the challenges and opportunities presented by the AI revolution and provide strategies for navigating and thriving in this rapidly changing world. Through a combination of expert insight and practical advice, I will help you understand the impact of AI on the job market and society as a whole, and provide you with the tools you need to adapt and succeed in the face of increasing automation permeating every sector of society in the western world.

Whether you are an independent or corporate worker looking to stay competitive in the face of automation, a business owner seeking to leverage AI to increase efficiency and productivity, or simply someone curious about the impact of AI on our world today and tomorrow, this book has something for you.

Common knowledge would say that it is not possible to “surf a tsunami”, as tsunamis are extremely dangerous natural disasters that can cause widespread destruction and loss of life...but in the case of our current technological tsunami, I beg to differ.

First of all, this is a tsunami indeed...because the wave coming over us is incredibly powerful, and will disrupt and wash away many of the old processes, mental systems and business models we used to take for granted. On the other hand, it is beautiful, because as it comes and goes, unleashed to its whole positive potential with every subsequent ripple effect, it will leave behind a much “cleaner” and more beautiful world in which everything will be free and we’ll never have to “work” again -as we understand that word today.

I invite you to follow me, Javier Marti, into this amazing journey of discovery to the very center of this wave, so you can learn about its origin, currents and hardly-visible ripples and find the surfing path that others may well overlook...the ideal path to ride this wave...the path only available to the smartest of surfers, who see the wave well before others do.

This wave is already forming and the world will not wait for us. Are you coming with me? Let's join forces and dive in, understand, reflect on and explore the strategies for riding this beautiful tsunami, and thriving in the age of AI and automation. Although the optimal surfing path is hard to find, I am sure that together we can find it.



WHAT IS AI AND WHY SHOULD I CARE?

AI is a branch of computer science that deals with developing machines and programs that can think, reason, and act like humans. AI is used to create “intelligent” machines and systems that can simulate human behavior and decision-making, understand natural language, recognize objects and faces, solve complex problems, and learn from experience.

AI is achieved through a combination of machine learning algorithms, neural networks, and deep learning.

There are many different approaches to creating AI systems, and the specific techniques used will depend on the specific goals of the AI and the constraints of the problem it is trying to solve. Some of the main techniques used in AI include:

- **Machine learning:** training a computer to perform a task by providing it with a large dataset and allowing it to learn patterns and relationships in the data.
- **Natural language processing:** enabling computers to understand and generate human language, such as speech or text.
- **Computer vision:** enabling computers to interpret and understand visual information, such as images or video.
- **Robotics:** creating robots that can perceive their environment and interact with it in a way that resembles human behavior.

Overall, the goal of AI is to create systems that can perform tasks that would normally require human intelligence, and to make those systems increasingly autonomous and capable of adapting to new situations and environments.

It is very important to understand the potential impacts of AI on employment because AI is already disrupting many industries and occupations, and will disrupt many more soon.

Automation and AI have the potential to increase efficiency, reduce costs, and improve the quality of products and services but will also have considerable negative impacts on employment, as automation and AI can potentially lead to massive job losses and extremely high levels of inequality.

It is important for both, individuals and businesses, to be aware of the potential risks and benefits associated with AI and automation, so we can all make informed decisions about how to best use these technologies.

As individuals it is also crucial to understand how AI trends will affect our position and job security in the short and medium term, and what we can do to:

- a) try to insulate ourselves from the most negative outcomes associated with this powerful technological change, or
- b) at least minimize the damage to our personal and professional lives, from the coming greatest wave of widespread unemployment the western world has ever seen.

What are the main benefits and drawbacks of AI?

Who could answer this question better than the source? According to an advanced language model itself, here are 10 potential benefits and drawbacks of artificial intelligence:

- ✓ Increased efficiency: AI can often perform tasks more quickly and accurately than humans, which can lead to increased efficiency and productivity.
- ✓ Improved decision-making: AI systems can analyze large amounts of data and identify patterns and relationships that may not be apparent to humans, which can improve decision-making.
- ✓ Increased accuracy: AI systems can be designed to make fewer errors than humans, which can lead to increased accuracy in certain tasks.
- ✓ Increased speed: AI systems can often perform tasks much more quickly than humans, which can be beneficial in time-sensitive situations.
- ✓ Increased accessibility: AI technologies can make certain services and products more accessible to people with disabilities or other needs.
- ✓ Increased safety: AI technologies can be used to improve safety in a variety of settings, such as self-driving cars or industrial automation.
- ✓ Increased personalization: AI systems can be designed to provide personalized recommendations or services based on an individual's preferences or needs.
- ✓ Increased scalability: AI systems can be used to perform tasks at a much larger scale than humans, which can be beneficial in certain situations.
- ✓ Increased creativity: AI systems can be used to generate creative ideas or solutions that may not be possible for humans alone.
- ✓ Increased accessibility to information: AI technologies can be used to make large amounts of information more accessible and searchable, which can improve research and learning.

And here are ten potential drawbacks of this same technology (still according to the AI itself):

- Job displacement: AI technologies may replace certain jobs, leading to displacement of workers.

- Bias: AI systems can be biased if they are trained on biased data, which can perpetuate and amplify existing societal biases.
 - Privacy concerns: AI technologies can collect and use large amounts of personal data, which can raise privacy concerns.
 - Security risks: AI systems can be vulnerable to cyber attacks or other security risks.
 - Ethical concerns: AI technologies can raise ethical concerns, such as in the use of autonomous weapons or decision-making systems.
 - Lack of transparency: AI systems can be difficult to understand and explain, which can make it hard to hold them accountable for their decisions.
 - Dependence on technology: Increased reliance on AI technologies can lead to a dependence on technology and a loss of certain skills or knowledge.
 - Cost: Implementing and maintaining AI technologies can be costly, which may limit their accessibility.
 - Lack of accountability: AI systems can be difficult to hold accountable for their actions or decisions, which can raise legal and ethical concerns.
 - Social and cultural impacts: AI technologies can have social and cultural impacts that are difficult to predict or control.
-

Notice the nuanced way in which the AI writes about the potential problems associated with itself...

In order to understand the real implications of what we have just read, we are going to analyze each one of those points in the coming chapters, in more detail.

Of all those points, the most important and urgent to note is, interestingly, the first one mentioned by the AI in the list of drawbacks of the technology: massive unemployment.

This is the problem this book is centered around, and for good reason.

Although many fail to see it today, the connection between AI and unemployment is by far the

most important problem that humanity ever faced at this scale and one it should focus all its energy in solving.

Unlike “climate change”, “racism”, “population growth”, “inequality”, “lack of education”, “global health”, “human rights” and other challenges we are facing, the problem of technology-induced unemployment...

1. cannot wait, as it is already affecting us
2. the worst possible outcomes associated to this change can happen in years, not decades
3. is happening at the same time in most developed countries
4. its effects –lack of money to buy food- may prevent us from paying attention, let alone solving, all the other problems we face, including health-related ones

Androids also coming into the scene

Humanoid robots were once the stuff of science fiction, appearing in movies and television shows as futuristic and advanced machines. However, in recent years, the development of humanoid robots has made significant strides, and they are now becoming a reality. These robots are designed to resemble humans in both appearance and behavior, and they are capable of performing a wide range of tasks and functions.

As we speak, the time has finally come and the androids are finally here, due to the convergence of three important trends:

- *The emergence of increasingly dexterous robots* that can manipulate objects in some cases better and faster than humans¹
- *The improvement in artificial skins with human-like appearance*, soft and warm to the touch – something both scientists and visual effects professionals have been quietly working on, for a long time²
- *The general AI's improvement in language models and common-speech understanding*, allowing for easy communication with these robots by the elderly and children. As an added benefit, as robots become more adept at understanding and responding to human language, they are able to better assist us in a wider range of activities.

In the short term, the emergence of increasingly dexterous robots has the potential to revolutionize industries such as manufacturing, construction, and transportation. In the long term, as androids become more advanced we enter the realm of science fiction, where

¹ <https://openai.com/blog/solving-rubiks-cube/>

² <https://www.livescience.com/1013-robots-soft-human-skin.html>

humanoid robots become so common and life-like as to not to be noticed anymore as a special or different “kind of human”.

As robots become more agile and sophisticated, they will also be able to perform a wider range of tasks and operate in a wider range of environments, becoming particularly useful in certain areas where most of the equipment and tools needed to operate are designed to be used by a being with the shape of a human. For example, if we want a robot to act as a first responder during a fire, although not essential, it may be desirable that the robot has a human shape, so he can easily and quickly interact with door handles, electric drills, hoses and other existing objects or tools designed for human use.

The improvement in artificial skins with human-like appearance will also have a major impact on the way we interact with robots. As robots become more lifelike, they will be able to better understand and respond to our needs and desires.

In general, improvements in these areas are already leading to more personal and intuitive interactions with robots, which is particularly useful in fields such as healthcare and education.

Having described the “how” in the emergence of human-like robots, let’s bring some insight on the “why now” aspect: at the social level, there are three main trends fuelling this rapid development of human-like robots:

- Aging population needing care (one of the main motivators for Japan having been at the cutting edge of robotics development and research³)
- Epidemy of loneliness: current social trends and the erosion of traditional family formation in modern western society are leading to humans looking for companionship, wherever they can find it

45% OF WOMEN ARE EXPECTED TO BE SINGLE AND CHILDLESS BY 2030⁴

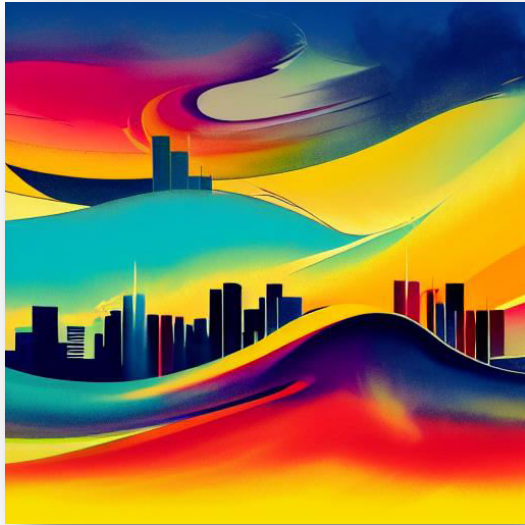
- Reduction in price increases market appeal: whereas humanoid robots used to cost as much as a house in the past, as more companies create prototypes and more scientists collaborate in this area (also improving prototype development speed through 3D printing), economies of scale lead to a rapid reduction in price per unit

³ <https://thefw.com/therapeutic-robot-seals-japanese-tsunami-survivors-video/>

⁴ <https://www.eviemagazine.com/post/45-percent-women-are-expected-to-be-single-and-childless-by-2030>

The emergence of humanoid androids is an important topic to understand, but as profound as the implications will be from such advances, in the short term, the issue of AI-fuelled unemployment should be our main priority, both at the personal and corporate level.

Since this problem is so important, we are going to be talking much about it in other chapters, but for now, hold on to that thought as we now have a look at the other pieces of the puzzle...



WHERE WE ARE: WELCOME TO THE AGE OF CONFUSION

In order to understand a problem, we must dive deeper into its nature. Thus, I must warn you: this chapter may seem pessimistic, for we are going to look at all the problems we are currently facing, since they are all interrelated to one another, and the AI revolution will exacerbate them.

In any case, fret not about the dark reality of this chapter...better news come at the end of the book.

Do not be tempted to skip this chapter, as failing to properly understand “where we are” will give you a very incomplete view of the current AI era, and make it more difficult for you to understand and plan for your current and future role in it.

Although technology is a means, not an end, we are living in times of great change. However, the change that is coming is much more powerful than what we have seen so far. The pace and magnitude of this change cannot be overstated. It's the biggest change the world and humans have ever seen, and only the fittest will survive, both in the figurative and literal sense, at the corporate and personal level.

THE OUTCOME OF THE AI REVOLUTION IN THE SHORT TERM WILL TEND TO BE WIDESPREAD PSYCHOLOGICAL AND SOCIAL "CONFUSION" OF AN EPIC SCALE, AS THE PACE OF TECHNOLOGY BEGINS TO OUTPACE OUR ABILITY TO KEEP UP WITH IT. IT WILL ALSO CREATE THE CONDITIONS TO IMPOVERISH MOST OF SOCIETY, IN RECORD TIME, AND IN SHOCKING AND UNEXPECTED WAYS. WHOLE SECTORS OF THE ECONOMY WILL BE GREATLY AFFECTED, IMPORTANT COMPANIES WILL LOSE THEIR MARKET-LEADING POSITION AND MILLIONS OF WORKERS, INCLUDING WHITE COLLAR ONES AT THE HIGHEST LEVELS OF THE CORPORATE WORLD, WILL BECOME UNEMPLOYED AND UNEMPLOYABLE, ACCORDING TO OUR CURRENT DEFINITION OF WORK.

The AI revolution also arrives at an inconvenient time in human history, and this makes integrating the powerful forces of AI in society in a graceful way...a majorly difficult task.

As of the writing of this book, even before the emergence of "revolutionary AI", we had to deal with a variety of other important and urgent challenges affecting employment trends, society and businesses. Each one of these have the potential to create havoc on its own, and each one is important. Let's go quickly over the main ones, starting with what happened in the pivotal year of 2020:

Unemployment and job insecurity – Even before the advent of advanced AI tools and systems, the prevailing trend has been that of reducing the need for human workers in all sectors of the economy. Petrol stations attendants, bank tellers and supermarket cashiers have all been first hand witnesses to this for years, but as the number of workers displaced by technology is going to be much greater soon, this problem will get exponentially worse in a relatively short time.

Mental health issues and substance abuse – From social media addiction to a pervasive inability to concentrate due to reading news in short-form format, mental health problems and addictions to virtual tools and spaces are increasingly affecting wider swaths of society in greater numbers than ever before. As an example, this is a real comment found online:

"I downloaded (social media platform) a year ago and have been addicted to it ever since. I've always loved movies but now it can be hard for me to even sit through a film without feeling the need to pause it and go on (social media platform). Or pausing it and accidentally ending up on

(social media platform) for 30 minutes. I have an addictive personality and this app feeds into that on a level unseen since alcohol.”

Although this level of casual addiction could feel inconsequential, it is actually a great social problem, for without concentration there cannot be memorization and learning, and without learning it is impossible to compete or even try to adapt to the AI era:

CONCENTRATION > MEMORIZATION > LEARNING > PRACTICE > MASTERY

At a sociological level, a society composed of people with a serious inability to concentrate and learn, is doomed to collapse.

In my book “The happening of happiness” I delve deeper into the causes and consequences of this kind of malaise, but suffice to say that as machines get capable of reading a thousand books and reports in a second, it is an incredibly inconvenient moment for average humans to not be able to read two pages of text without getting distracted with something else.

Education access and quality – Computers are getting smarter at a time when the average person is rapidly becoming “dumber”. A dumber population is more easily manipulated and lied to, and has fewer tools to understand the world they live in.

The problem is associated to poor reasoning skills and a lack of general background culture, historical and economic knowledge and understanding of the world.

A society that cannot see the parallels of its current mistakes in past situations is condemned to repeat those mistakes.

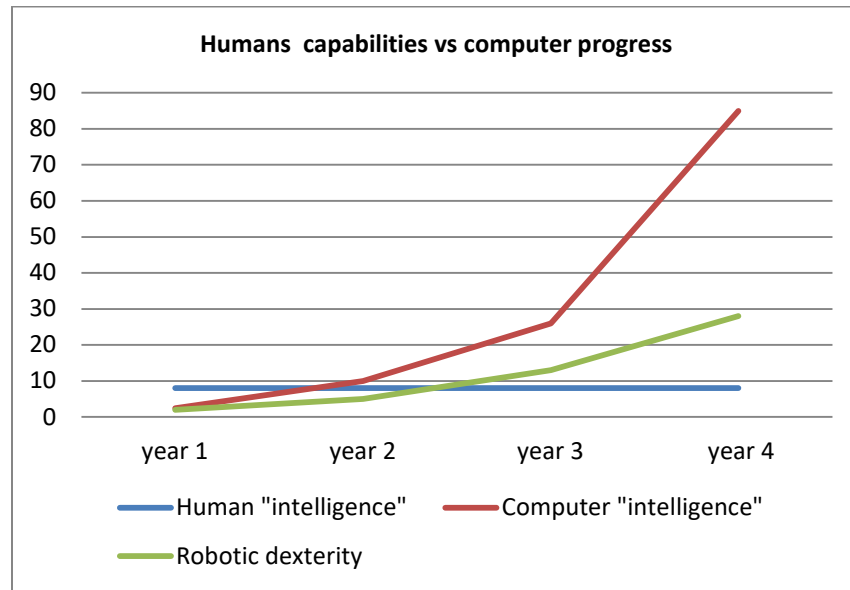


FIGURE 4 – HUMAN COGNITIVE AND PHYSICAL SKILLS PROGRESSIVELY DECLINING AS AI “INTELLIGENCE” AND ROBOTIC DEXTERITY IS EXPONENTIALLY IMPROVING.

“THE AVERAGE RATE OF DECLINE HAS BEEN AROUND THREE IQ POINTS A DECADE, AMOUNTING TO THE LOSS OF ABOUT 13.5 PERCENT IN AVERAGE INTELLIGENCE BETWEEN 1975 AND 2020. RESULTS FROM SEPARATE STUDIES CARRIED OUT IN SEVEN DIFFERENT COUNTRIES DESCRIBE A GENERAL LOSS OF INTELLIGENCE.”⁵

Robotics – Among other impacts, the emergence of more capable robots will greatly affect the number of jobs available to humans. As of today, the revolution is happening online based on knowledge delivery and optimization systems, but in the physical world, where automated chatbots or text based systems cannot reach, either android or non-android robots are already reaching, and advancing in skills and dexterity, at a concerning pace.

The imminent emergence of virtual and robotic companions will also create new forms of relationships that will further exacerbate fertility rates imbalances and traditional-family formation, in most western countries.

⁵ <https://mahb.stanford.edu/blog/idiocracy-is-the-decline-in-human-intelligence-undermining-democracy/>

DUE TO OUR EMOTIONAL NATURE, OUR PROCLIVITY TO FIND PATTERNS EVEN WHERE NONE EXIST, AND OUR TENDENCY TO ANTROMORPHOSIZE MACHINES, ROBOTS DON'T NEED TO LOOK LIKE A HUMAN, OR BEHAVE LIKE A HUMAN, FOR LONELY HUMANS TO GET EXTREMELY FOND OF THEM. UNFORTUNATELY, THIS "LOVE" FLOWS ONLY IN ONE DIRECTION: FROM THE HUMAN TO THE MACHINE.

Fewer relationships started between biological humans mean less children being born. This in turn makes it more difficult for governments to raise the adequate level of taxes to deliver care and pensions to a rapidly aging population.

Nanotechnology advances— (e.g. Crispr) Whilst “we were not looking”, a revolution of its own happened in the world of nanotechnology, opening up the possibility of creating new life forms and modifying and shaping existing life forms to achieve a particular appearance or function in the organism manipulated with these techniques –be it a plant, an animal or a human. The novel discovery and use of materials and nano-manipulation techniques holds immense potential to not only make us wonder “what exactly defines life, who owns it and at what level is manipulation of the core blocks of life ethically correct”, but it also has the potential to displace workers and upend whole industries.

Cyber-assisted sophisticated criminality – A surprisingly overlooked fact by society today, is the extent to which cybercrime, corporate espionage and other forms of illegal acts will be greatly amplified with the help of AI tools.

From small-scale terrorist groups asking AI systems to list all the steps to make a particular biological bomb, to a drug smuggler asking the AI to optimize his “delivery routes” by land, air and sea to minimize interception, to suggesting new “under-served” markets or fine-tuning phishing scams to make the interaction with victims sound or look more human –even on audio or video- current and upcoming technological tools already allow for an explosion in the ability of criminals to create greater damage and evade capture, better than ever before.

Increasing corporate⁶ and public sector⁷ fraud and corruption – Unfortunately, the hollowing out of economies together with a rise in corruption and general individual selfishness and narcissism, has led to a situation in which scams are never hard to find, at all levels and in all sectors of private and public life. Not only the myth of the genius founder or eccentric manager was debunked before our eyes, but public “servants” are increasingly demonstrating that they

⁶ https://en.wikipedia.org/wiki/List_of_largest_pharmaceutical_settlements

⁷ https://en.wikipedia.org/wiki/Qatar_corruption_scandal_at_the_European_Parliament

serve more their own pockets than the public.

Furthermore, corporate scandals seem to be increasing not only in frequency, but also in the amount of money criminally extracted out of the system, sometimes to the tune of billions of dollars.

The “everything free” economy and false growth – The abundance of money supporting unprofitable businesses in the last decades, particularly in the tech sector, has led to the emergence of a nonsensical culture of “moving fast and breaking things”, and running businesses that are totally unprofitable, in the hopes that a greater fool will buy our investment in that business from us, or that fast, international expansion will allow the company to figure out a profitable business model later down the line. This state of affairs poses two problems. One is that in the most important sector of the economy, there’s a whole generation of producers that have had little real world business experience and cannot create or run a real, profitable company. The second problem is that we have conditioned consumers to expect the provision of software-based services and products for free.

Giving things for free trains the consumer to expect free products and services that are NOT free to produce. Even in a tech startup with “low” overheads, someone has to pay for the design of the website, staff wages, servers, offices, etc...

The “everything free” trend also leads to consolidating sectors only in the hands of those companies backed by venture capitalists who can afford to finance a loss-making company for years before expecting any real return on their investment.

The corollary to all this is that due to a lack of creativity of their founders and a voracious desire of investors to reach a profit immediately at any cost, companies following such business models have oftentimes made the business profitable only after using questionable methods, such as following and recording every interaction with the product that the user has -often without their consent- for that information to be sold later to third parties.

Other companies, particularly in the fintech sector, have simply chosen to scam their users through “rug pulls” or make them invest in Ponzi schemes carefully hidden in “revolutionary white papers” and techno-marketing talk.

Globalization – As the world got more integrated, each economy has had to compete with every other economy in the world. At an individual level, whereas before we had to compete with other local applicants to get a job or provide services, as we have all migrated online, each worker has now to compete with every other worker, anywhere in the world.

This situation poses similar challenges at the corporate and individual level. First, is that in a profession that can be performed online, such as a programmer or project manager, it’s already impossible to compete with a worker providing the same service from a location with much lower costs of production.

At the corporate and industrial level, the same situation applies, as companies in foreign countries may have much lower costs of production than their developed counterparts, mostly due to lower taxes and labor costs.



FIGURE 2 - HIGHER COSTS LEAD TO HIGHER CONSUMER PRICES AT THE COUNTER. COUNTRIES WITH LOWER PRODUCTION COSTS WIN

Supply chain challenges – Irrational and harmful political decisions, like the hastily imposed lockdowns of 2020, the implosion of social and economic order and the proclivity of companies to use the JIT (“Just in time”) model of production increase the fragility of the whole economic system and expose countries to the difficulties and social and economic fluctuations of other countries much more easily and quickly than ever before.

Geo-political instability – As countries are gripped by social unrest and their economies progressively falter, populist politicians presenting easy solutions to complex problems are already arising, and will soon be tempted or forced to use military might to try to obtain resources wherever they are found, including neighboring countries or distant lands that cannot effectively defend themselves militarily.

General economic instability – It’s a little-known fact that most of the important economic institutions of the western world, from banks to national and local governments, are technically “broke”. This fact is hidden from the public due to complicated financial engineering that has resulted in huge debt burdens at the private and public level.

In essence, in the same way that a family may get indebted to credit card companies by spending too much, our governments and companies have been doing the same thing for quite some time. As a consequence of this, and due to the deep interconnectedness of trade and borrowing at an international level, our extremely fragile banking and economic system risks igniting a total implosion of the global economic system with devastating consequences for private savings, pensions, availability of credit and all other areas of a traditional western capitalist economy.

Potential release of biological agents (of any kind) into the environment – As we have seen in the 2020 sanitary crisis, whether real⁸ or hyped by the media, threats to our individual health and how we deal with them, can affect our present and future in very radical ways. Unfortunately, our apparent inability to learn from our past actions in these areas is also responsible for creating and perpetuating social conditions that may result in further psychological and economic damage to our societies.

Aging population (and care for the elderly) – Most countries in the western world are aging fast. This is a huge problem because when a person retires, they turn from being an “asset” to the pension system, providing money through taxes, to rapidly become a “liability” to said system. These new pensioners not only routinely spend less than at the peak of their working years, but also cost the state a considerable and growing amount of public money in pensions and healthcare, for they live longer than previous generations.

Is it their fault if the state has failed to prepare for such a demographic change? Absolutely not... and after working hard and paying into the state coffers all of their lives, they are duly entitled to a pension, as stated by the law.

However, the problem of diminishing money held by the state to pay pensions has not been resolved, and doesn't seem to begin to be resolved anytime soon by our incompetent “leaders”. This problem will further get exacerbated soon as a huge portion of the population become unemployed due to AI, as these newly-unemployed individuals will be competing with pensioners for quantitatively-limited state subsidies.

⁸ <https://www.washingtonpost.com/climate-environment/2023/01/09/make-sunsets-solar-geoengineering-climate/>

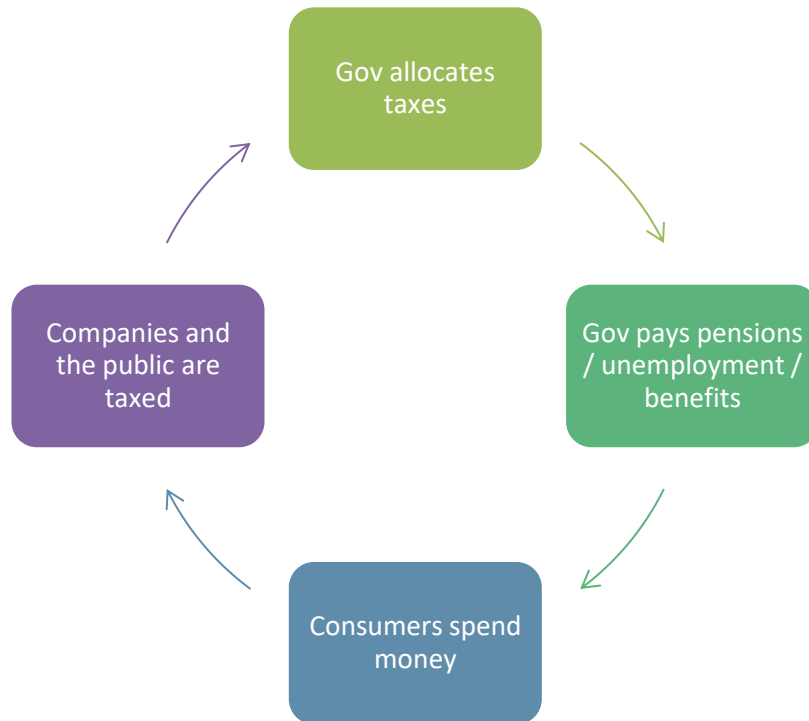


FIGURE 3 –SIMPLIFIED FLOW OF MONEY IN A HEALTHY WESTERN ECONOMY. WHEN THE GOVERNMENT CAN RAISE LESS MONEY IN TAXES DUE TO A RAPID AND WIDESPREAD LACK OF JOB OPPORTUNITIES, UNEMPLOYMENT BENEFITS, PENSIONS AND OTHER SUBSIDIES WILL BE EITHER DRAMATICALLY REDUCED, OR SIMPLY ELIMINATED.

Potential therapeutic-related injuries – Some highly qualified health professionals, publishing in peer-reviewed papers, have brought our attention to a potential relationship between Covid19 vaccines and some very serious health issues⁹. Apart from the personal and social impact of such a situation being eventually confirmed, we can envision that the economic consequences of large numbers of people becoming disabled or at least unable to continue performing their role in society, cannot be understated.

Among other issues, like the extra burden on governments to increase spending on disability subsidies and the extra pressure on the health systems dealing with the effects of such a situation, it's important to note that every person that becomes seriously incapacitated takes out another person from the economy.

This is because the assistant of the injured person –usually a family member or partner- has to take care of the injured person, either on a part or full-time basis. Depending on where we live, treatments can also be expensive, time consuming and complicated to access. This adds to the inability of assistants of injured persons to continue earning a regular income and paying taxes to the state.

⁹ <https://jamanetwork.com/journals/jamacardiology/fullarticle/2791253>

IN MODERN WESTERN SOCIETIES, WE HAVE AN EXPECTATION OF BEING PROTECTED BY THE STATE, SHOULD WE SUFFER A DISABILITY OR CHRONIC SERIOUS INJURY. BUT WHAT HAPPENS IF, AS AN EXAMPLE, THIS HAPPENS TO 30% OF THE POPULATION IN ANY GIVEN YEAR? IF ONE PERSON GETS SERIOUSLY INJURED, TWO PEOPLE STOP PROVIDING MONEY TO THE STATE, AND INSTEAD BECOME DEPENDENT ON THE STATE TO PROVIDE MONEY OR GOODS TO THEM.

Even if an external assistant is hired to care for the injured person, the net result is a notable reduction of purchasing power for that family, putting them in a much more fragile position to face the challenges that AI present to continuity of employment.

Future lockdowns and general health-related “crisis”– The emotional trauma suffered by the western world in 2020 will take many years to heal from. The damaged to our collective psyches, relationships and broken family bonds have made modern men and women more “disconnected, insecure and drastically more susceptible to juvenile, toxic and reductionist opinions”. Apart from the psychological damage suffered at an individual level, the social impact is also important, for many people were damaged by the state-provoked blockages to their ability to make a living, and have suffered important delays obtaining medical help that should have never been temporarily suspended to begin with, like cancer treatments or mental health support.

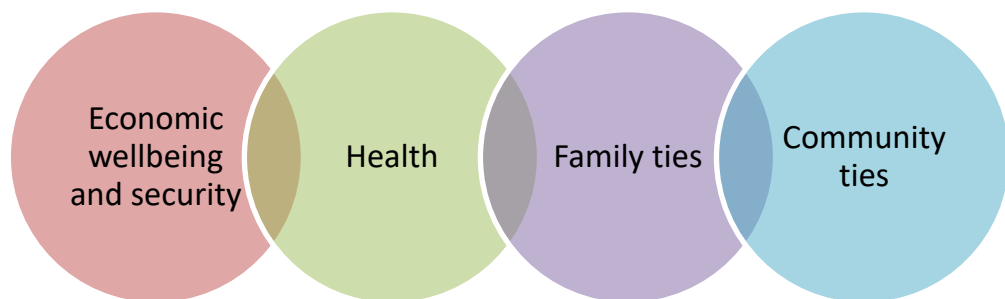


FIGURE 1 - SUDDEN LOCKDOWNS AND DRASTIC CHANGES IN SOCIETAL ORDER NEGATIVELY IMPACT EACH ONE OF THESE INTERCONNECTED ASPECTS OF LIFE. E.G. IF GOVERNMENT FORCES A BUSINESS TO CLOSE, THE RIPPLE EFFECTS ARE FELT IN THE JOB MARKET (LESS JOBS AVAILABLE), THE HEALTH OF THOSE AFFECTED TAKES A NOSEDIVE (MORE PRESSURE ON THE HEALTH SYSTEM), FAMILY AND RELATIONSHIP PROBLEMS ARISE, AND THE COMMUNITY IS ALSO FURTHER WEAKENED. POLITICIANS SHOULD HAVE PREVENTED THIS. HOWEVER, THEY CAUSED IRREPARABLE DAMAGE TO SOCIETIES BEING THE MAIN PROPONENTS OF SHOCKINGLY SIMPLISTIC, DANGEROUS AND UNHEALTHY “SOLUTIONS”. WERE THEIR DECISIONS BASED ON SHEER INCOMPETENCE, OR MASSIVE CORRUPTION?

Rising inequality – Not only we will have a society of “haves” and “have-nots”, but we are entering an era of “cans” and “cannots”. Those with the capital to be the first to buy and effectively deploy high quality AI systems –individuals, businesses, hedge funds, political parties, and countries- will see their competition obliterated -particularly if they are able to prevent others from obtaining the same kind of competitive advantage. This is because the nature of AI tools allows for power that grows in an exponential manner.

The proliferation of synthetic imagery and video – “Deep fakes” were the first iteration of a form of technology that allows people to manipulate audio, video, and other forms of media in order to create highly realistic, but false content. Fake video can be used to spread misinformation, propaganda, and other forms of false information. Deep fakes are becoming increasingly sophisticated and hard to detect, which means that people may not realize they are being deceived.



FIGURE 5 - FICTIONAL PERSON CREATED BY A NEURAL NETWORK¹⁰

¹⁰ Source: <https://thispersondoesnotexist.com/>

AS MORE INDIVIDUALS WITH POOR EDUCATION AND EVEN POORER CRITICAL THINKING SKILLS ARE EXPOSED TO THE CONFUSION AND MISTRUST CREATED BY COMPUTER-GENERATED IMAGES AND VIDEO, SOCIETY IN GENERAL CAN BE MANIPULATED AND DIVIDED MORE EASILY THAN EVER BEFORE.

In the past, we have experienced different kind of lies and propaganda, coming from all sorts of sources, including our own governments...but how are we to react when we do not know what is real and what is not real anymore? Some of the potential uses and problems related to deep fake imagery:

- Criminals caught “in the act”, including politicians, can slow down the justice system by alleging that the video of them committing the act is not real. At a time when the judicial system is already very slow, this may result in many crimes prescribing before the criminal finally is finally taken before the court.
- It is easier than ever to frame somebody in the scene of a crime, when the person was never actually there in the first place.
- Historical events can be re-created on video by dictatorial governments or others, in order to re-write history and educate a desired target audience on things that never happened, or that happened very differently to how they’re portrayed in the new material. As George Orwell said, “Those who control the present, control the past and those who control the past control the future.”

The convergence of all these trends and others coupled with the inability of politicians to provide real solutions to modern problems in a timely manner, will soon lead to great levels of “food insecurity” (translation: plain old “hunger”) in the western world, happening much faster than we thought possible. In light of this we could wonder: could ex-upper class families living in beautiful, expensive houses, experience hunger whilst also living in the middle of Paris or Munich or Geneva? As shocking as it may seem it will happen, as more and more people become unemployed, and are not able to find their next job and run out of savings.

How it all happens is relatively simple: at a time of need and out of savings, that average family may not be able to sell their luxurious house if there are no buyers for it in the market. If they’re lucky and able to sell, they could be forced get rid of the property for the equivalent money to cover the survival costs for a few months. What then?

In latter chapters we'll work together to brainstorm ways to not experience this fate ourselves.

Until then, so far we can see that powerful AI systems open up to us a world of possibilities for good, but also bring with them the problems associated with such a great and sudden change in how things work, from an exponential increase in crime to massive unemployment .

As these changes and the issues above “come into the picture” in a sudden and dramatic way, it is imperative to realize that *we are at a point in history where we have not found yet even an appropriate understanding of each one of these challenges and their true consequences*. To add insult to injury, our aged, corrupt and technologically-illiterate political class is probabilistically unable to tackle them effectively anytime soon. We are sailing uncharted waters, all on our own.

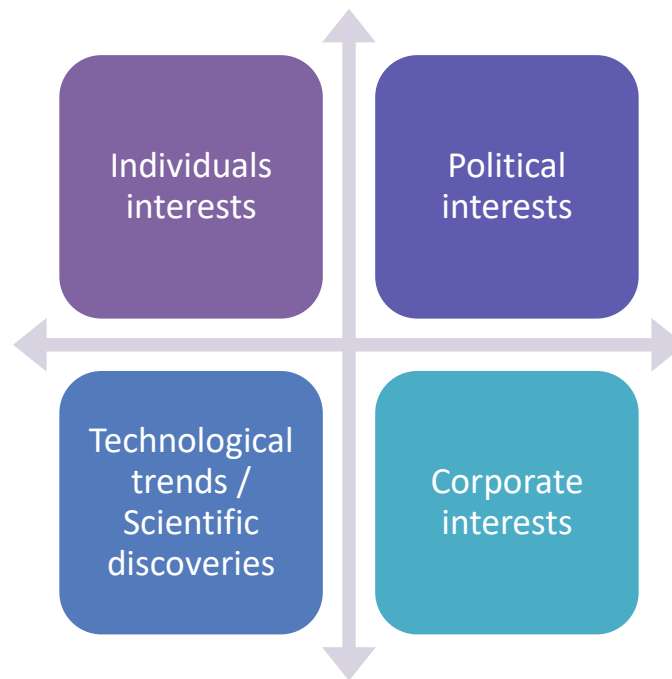


FIGURE 6 - FOR A FUNCTIONING SOCIETY, ALL FORCES IN THIS DIAGRAM MUST CONVERGE AND WORK IN HARMONY, NOT PULL IN DIFFERENT DIRECTIONS. BUT ARE THEY CONVERGING? WILL THEY, AS WE GO FORWARD IN TIME?

THE PROBLEMS ASSOCIATED BY A SUDDEN OR HURRIED IMPLEMENTATION OF AI IN SOCIETY ARE BAD ENOUGH BY THEMSELVES, BUT WHEN WE PUT THEM TOGETHER WITH THE COCKTAIL OF ONGOING ISSUES DETAILED EARLIER, WE ARE IN FOR A ROUGH RIDE. THE REASON IS THAT THE AI REVOLUTION STRIKES AT THE VERY CENTRE OF OUR ABILITY TO SURVIVE BOTH AS COMPANIES AND AS INDIVIDUALS.

As we lay the landscape of where we are and where we are going, let me also give you a warning: when you talk or hear others talk about AI, do not get distracted with seemingly transcendent

yet trivial conversations, like the problem of the “singularity”, or that of “the machines becoming sentient and taking over”.

ALTHOUGH IT IS A POSSIBILITY THAT A SUFFICIENTLY ADVANCED AI COULD ONE DAY SOMEHOW SURPASS THE ABILITY OF HUMANS TO CONTROL IT, THIS IS A POINTLESS CONVERSATION TO HAVE AT A TIME WHERE OUR SOLE FOCUS SHOULD BE ON “HOW WE ARE GOING TO RIDE THE AI REVOLUTION WITHOUT BEING SWAMPED BY IT, REMAINING THROUGHOUT STILL ABLE TO PUT FOOD ON THE TABLE.”

This point, and the sense of urgency about this topic I want to instill in you, is one of the most important messages in this book.

Thus, as we see, first of all, the “singularity” conversation is not a conversation to waste time on, when our ability to stay alive is in danger. Second, let me draw from my hypnotherapist experience to show you why the “sentient machines taking over” fear is a complete waste of time, as things are today. To do this, allow me to state my case in the form of logical premises, and you’ll see where I am going:

Premise 1 - I am sure you would probably agree with me that in order to create something based on something else, we must first understand very well the original thing we want to make a copy of, correct? For example, if we are a developing country and want to build a cutting edge jet fighter, we must

- a) either design it completely from scratch, designing every single piece of the fuselage , navigation system and any other sophisticated machinery we need, piece by piece, or
- b) wait until we can somehow get a jet fighter of the type we want, and reverse engineer it, copying it piece by piece.

Premise 2 - Now, if you agree with the premises above, you’ll also agree that by the same token, if we want to build a “conscious” machine, we need to

- a) design a conscious machine from scratch, or
- b) fully understand how our human consciousness works, so that we can replicate it and transfer it somehow to a machine that operates in collections of ones and zeroes and zeroes

Impossible? Never say “never”...but it’s extremely unlikely. Why? Because, as of today:

- 1) We do not know “where consciousness starts or ends” in humans

- 2) We do not agree on an standard understanding of what consciousness is
- 3) Even if we could agree, we would have difficulties quantifying it well enough to transfer it to a physical system that would operate in what seems to be completely different ways to our human brain
- 4) We do not know what intuition is
- 5) We do not know what dreams are for
- 6) We do not know what déjà vu's are
- 7) We do not know how hypnosis works or exactly why it does
- 8) We do not know where the brain end and the mind starts
- 9) We do not know how to explain potentially real phenomena such as premonition and telepathy

Conclusion: now, seeing that we have not yet figured out almost anything about consciousness and “the mind” ...how exactly could we replicate anything we know so little about anytime soon, or with any degree of precision? If we try building it, would we be able to build the most sophisticated and energy-efficient machine that the world has ever seen –the human brain- in sheets of silicon and quartz, from scratch?

No.

On the other hand, if we choose the route of “simply” copying human consciousness, do we have a clear “unit” of this we can observe and dissect, so that we can fully understand it and replicate it by reverse-engineering it?

No. That's impossible and may be impossible and will be so...either for a long time, or forever.

Case closed about the singularity issue.

COULD WE ONE DAY CREATE CONSCIOUS MACHINES? NOBODY KNOWS. WILL WE DO IT BEFORE WE FIGURE OUT THINGS LIKE “THE MIND” AND “CONSCIOUSNESS”? IT IS HIGHLY UNLIKELY.

In the meantime, as we leave philosophical discussions to those who are willing to take the great risk of being totally left behind by AI, for the pleasure of their possibly pointless pursuits...at a

time when time is more precious than ever...let us continue with what is actually much more important and urgent: surviving and thriving in the age of AI.

...and a final warning:

ADVANCED TECHNOLOGICAL SYSTEMS DO NOT NEED TO BE “CONSCIOUS” OR “AWARE”, TO PRODUCE ENORMOUS SOCIETAL DAMAGE.

Are we ready for the AI challenge?

As we continue to advance in the field of artificial intelligence, it's becoming increasingly clear that society is not prepared to deal with the rapid pace of change that this technology brings.

For centuries, cultural and societal change has happened at a relatively slow pace. It's taken decades, or even centuries, for certain beliefs and practices to shift in a significant way. This has allowed people to adapt and adjust to these changes over time.

The AI revolution, unlike previous turning points in history, is happening at a much faster pace. Whereas in the past we could talk in terms of “30 year” wars, in just a few short years, the huge advances we are seeing in areas such as natural language processing and machine learning, force us to react much faster than we would have before.

THIS RAPID PACE OF CHANGE IS POSING A MAJOR CHALLENGE FOR SOCIETY, SINCE WE'RE NOT WELL PREPARED EITHER PSYCHOLOGICALLY, LOGISTICALLY, GEOPOLITICALLY, ETHICALLY OR PROFESSIONALLY TO DEAL WITH THE AI REVOLUTION.

As we stand today, we have difficulties to anticipate, understand and evaluate such rapid shifts in technology and their impacts on our lives, we don't yet have the systems in place to address the ethical and moral questions that AI raises, nor do we have the infrastructure to support the changes that it will bring...and we may not have any of this anytime soon.

Now, think of the potential consequences of what I just stated in the previous paragraph, and evaluate its veracity in terms of your own experience...

A race against time

While the potential benefits of AI are clear, the difficulty of anticipating and adapting to this

technology should not be underestimated. One major challenge is simply the speed at which AI is advancing. Another challenge is the unpredictable nature of AI itself.

Unlike other technologies that have a clear set of inputs and outputs, AI algorithms can produce unexpected results and behaviors. This can make it difficult for humans to understand why a certain system is giving a particular output, let alone what the consequences of implementing these outputs may be, down the line.

The “black box” problem

As AI systems become more advanced, something interesting is happening in the technical world, that not many people in the general public knows about: our systems are becoming so complex and sophisticated that we are dealing with the “black box problem”, in systems that are already being implemented by companies around the world, as we speak.

What does the “black box” refer to exactly?

THE “BLACK BOX PROBLEM” IN REFERENCE TO AI REFERS TO THE DIFFICULTY IN UNDERSTANDING OR INTERPRETING THE DECISION-MAKING PROCESSES OF AN AI SYSTEM. THIS CAN BE A PROBLEM BECAUSE IT MAKES IT DIFFICULT TO EXPLAIN THE REASONING BEHIND AN AI SYSTEM'S DECISIONS OR TO IDENTIFY ANY POTENTIAL BIASES IN ITS DECISION-MAKING.

Now, this would be a relatively minor problem, if even the tech department at your bank cannot explain the reasoning of the machine when delivering to you the bad news that the system rejected your loan request.

However, this issue has much bigger implications, when the “black box problem” is present in systems that assist judges in making decisions¹¹, the AI decides to disconnect a person from the respirator keeping them alive, or it decides for the police which person to search or detain¹², based on a logic that humans:

- a) either don't have access to, or
- b) could not understand even if they did, as there are thousands of variables being considered at the same time by the machine, in order to reach its final decision.

In essence, we need to consider the potential consequences of using this technology, including issues such as not only job displacement, but privacy concerns and how to best re-imagine how our societies work in order to live in harmony with this technology. Will we be able to figure it all out on time? And if not, how can we adapt to it at an individual level?

¹¹ <https://pixelplex.io/blog/artificial-intelligence-criminal-justice-system/>

¹² <https://www.theinsaneapp.com/2023/01/innocent-man-arrested-after-yet-another-facial-recognition-failure.html>

Precisely coming down from the general to the individual level, it is time for us to discuss how this change will impact the job market, who will be affected, and how.



THE INCREASING PRESENCE OF ARTIFICIAL INTELLIGENCE IN THE WORKFORCE AND ITS IMPACT

**"TECHNOLOGY IS A TOOL, NOT A REPLACEMENT FOR HUMAN INTERACTION."
– UNKNOWN**

The beautiful quote above reflects the world as we'd like it to be.

This chapter on the other hand, reflects our current predicament as it currently is, and will be, in a world where technology is rapidly replacing human interaction.

The increasing prevalence of AI in the workforce is rapidly leading to the commoditization of many professional jobs. Having already passed in previous decades the stage in which individuals could be replaced by other individuals with lower costs of production –offshore outsourcing- today workers are being increasingly replaced by machines and automated systems that are in many cases faster, more accurate, productive and efficient than their human counterparts.

From the point of view of a business, automation is much better than offshore outsourcing, since problems and expenses related to jobs performed by humans –even those recruited and managed in another country- can still negatively affect the company’s bottom line and public image¹³.

In any case, neither society as a whole, nor individual workers are ready to deal with this change, as the wages of such professionals decline due to their job output becoming less unique, highly replicable and more readily available.

At the social and economic level, this loss of value of the worker as a producing unit in society has huge implications, for several reasons:

- 1) It is happening all over the world at the same time
- 2) Its effects permeate sectors, industries and age cohorts
- 3) The skill levels needed to compete with the new competition -the machines- are simply unattainable by humans
- 4) The support systems to deal with such a dislocation in the workforce do not exist, are slow to be built, and -even if there was political skill and foresight to create them- will be unaffordable for most western governments, due to the scale of the challenge.

I am sure you can see the problem here.

One factor contributing to the commoditization of jobs is the growing use of AI in automation and decision-making. Many tasks that were previously performed by professionals can now be automated using machine learning algorithms and other forms of AI.

For example, in the field of finance, AI can be used to analyze financial data and make investment decisions, which were previously the domain of financial analysts. Similarly, in the legal field, AI can be used to analyze legal documents and provide recommendations, which was previously the responsibility of paralegals and junior lawyers.

¹³ <https://www.scientificamerican.com/article/riots-suicides-apple/>

REMEMBER: THE MACHINES CAN ALREADY DO IT FASTER, BETTER, DON'T ASK FOR BREAKS, ARE NOT PART OF A UNION, DON'T FALL SICK, DON'T ASK FOR A BONUS OR RAISE, WORK 24H INCLUDING WEEKENDS AND DO NOT TAKE MATERNITY OR PATERNITY LEAVE.

Moreover, the commoditization of professional jobs is not limited to fields that are heavily reliant on technology. Even in fields that are traditionally less technical, such as education and healthcare, AI is being used to perform tasks that were previously the domain of highly-qualified, and in some cases highly-paid, professionals. For example, AI can be used to grade essays and provide feedback to students, which was previously the responsibility of teachers. Similarly, AI can be used to analyze medical images and provide diagnoses, which was previously the responsibility of radiologists.

Thus, the increasing use of AI in the workforce is likely to lead, in the best of cases, to a sudden decline in the wages of many professionals.

As their skills and expertise become more interchangeable, they may find it difficult to command high salaries and may have to accept lower wages in order to remain competitive. This is particularly true in fields that are heavily reliant on technology, where AI is able to perform tasks more quickly and accurately than humans.

While some of the most resourceful professionals may be able to somehow adapt to the change and find new roles that are not easily automated, most will struggle to stay relevant in an increasingly automated workforce.

It is also important to understand the real and immediate impact and significance related to the magnitude of the AI revolution, as well as dispelling any myths that “this is a simple recession” and that “some jobs will change, but humans have always found ways to do something else! For example, the positions of web designer or social media manager did not exist in 1990, but they do today”.

SUCH STATEMENTS MAY HAVE BEEN MADE BEFORE, BUT *THIS TIME REALLY IS DIFFERENT*: LIKE A TENNIS RACKET IS AN EXTENSION OF THE ARM OF A TENNIS PLAYER, WHEN THE INDUSTRIAL REVOLUTION HAPPENED, THE MACHINES THAT REPLACED WORKERS WERE JUST *AN EXTENSION OF HUMAN LABOR...*

The reason? In the past, we have never encountered a situation where we have to compete with a tireless, faster, more accurate and *superior* “race” in the realm that our whole society rests upon to function.

Think about it. Like a tennis racket is an extension of the arm of a tennis player, when the industrial revolution happened, the machines that replaced workers were just *an extension of human labor*. Back then, human workers were still needed to operate, manage and quality-check the output of machines whose output in many cases left much to be desired.

Humans were also still needed to imagine, design, schedule, organize, implement, monitor and evaluate the projects that pushed society forward. At that time, the human brain clearly still had a prominent and important place in society, even if the lower-skilled workers would suffer and had to recycle as the migration happened, from manual to semi-automated labor.

Today the story is very different, as the machines can do everything that humans can do, better, faster, continuously, and even do things that humans cannot easily do, including creative tasks like generating in a few seconds 100 brainstorming business product ideas, or suggesting new methods to invent a new process or product, in the same amount of time: literally, a few seconds.

Whether the machines competing with humans can “think” or are just glorified next-word-completion models, that is not the issue. The issue is that the machines can now produce output of a much higher quality than a human can, in a thousandth of the time a human would take to generate the same output.

Could humans compete in this landscape? Can a journalist write a detailed article with sources in 10 seconds? Can a medical practitioner generate a treatment plan in 7.2 seconds? No.

IN THE SAME WAY THAT ONLY THE BEST-QUALIFIED 1800S HUMAN WORKERS IN MANCHESTER WERE LEFT ONLY WITH THE JOB OF FEEDING THE LOOMS WITH THREAD AND CHECKING THE QUALITY OF THE GARMENTS PRODUCED BY THE NEWLY-AUTOMATED LOOMS, IN THE BEST OF CASES, THOSE WHO CAN KEEP THEIR JOBS TODAY WILL BE FORCED TO BECOME SIMPLE EDITORS OF THE OUTPUT OF THE INCREASINGLY PRECISE MACHINES...AT LEAST FOR A SHORT TIME UNTIL THE MACHINES ARE ABLE TO CROSS-QUALITY-CHECK THEMSELVES TO A LEVEL FAR SUPERIOR TO WHAT THE HUMANS COULD HOPE TO REPLICATE.

Interestingly, as we become not only unemployed, but in many cases “unemployable”, it is ironic that in a world where the main recent trend was to go towards the four day work-week, working-age individuals may not be needed at work anymore...even for 1h a week...and all this is happening in a period of years, not decades.

Commoditization leads to lower wages

As we move deeper into the age of AI, job positions become scarce and wages for humans begin to decline. Doctors¹⁴, drivers, architects, lawyers, programmers, social media managers, journalists, call center operators, executives and many others will all be affected in the short term. However, in the medium-term all professions will be affected, either from automation, robotics, or a combination of both, depending on the tasks to be performed.

“A program trained with the help of artificial intelligence is set to help a defendant contest his case in a U.S. [...] the program, which will run on a smartphone, will supply appropriate responses through an earpiece to the defendant, who can then use them in the courtroom.”¹⁵

Paradoxically, we will also witness a lowering of the economic value of “knowledge” in general. Indeed, if everyone can “write” a book in three days, what’s the value of a real book in the new society? If the computer can choose the materials needed to build a house, order them online from the cheapest provider and manage the schedule and performance of the workers or builders, what’s the value of a construction-site supervisor? If the computer can produce a neat report or slide-show with a variety of ways to optimize our business, and even point at tax loopholes and opportunities and logistic savings to reduce our costs, what’s the hourly value of a consultant’s work with 25 years experience in the field? Can this consultant produce the level of depth in the report that the computer system can generate? Will a tax assistant find a particular loophole buried in one of the 8000 pages of the British TAX code? How fast?

Some jobs may not be affected right away, being more difficult to automate –e.g. plumber- or they may require a greater “human touch”, like prostitution, nursing or therapy.

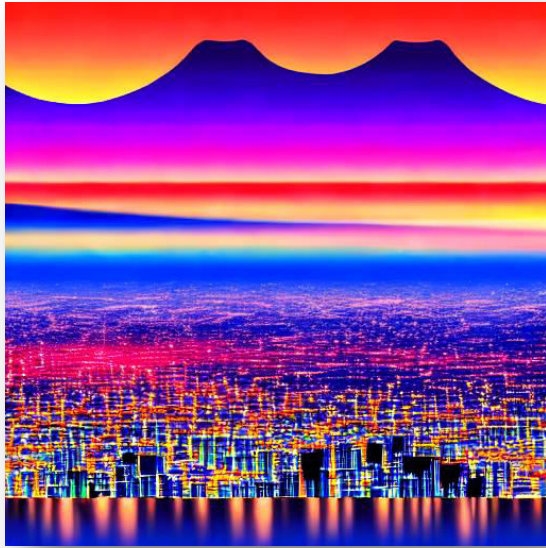
However, these jobs, although not directly affected by automation in the short term, will also enter into a spiral down in real wages and increased unemployment as the market will adapt to the lower amount of money floating around in the economy.

For instance, if a therapist used to charge X amount per hour, but now “nobody has money”, then he’ll have to lower his fees until the equilibrium is reached between what he wishes to charge and what the market is willing to pay for his services. This will further fuel a global economic collapse that that was already happening before the AI age.

¹⁴ <https://medium.com/inkwater-atlas/google-research-and-deepmind-create-ai-medical-chatbot-that-can-generate-safe-and-helpful-answers-d20a41fc098a>

¹⁵ <https://interestingengineering.com/innovation/ai-defend-case-us>

COMMODITIZATION LEADS TO LOWER WAGES AND UNEMPLOYMENT, AND SUCH TRENDS LEAD IN TURN TO A GLOBAL DEPRESSION, AS THE GOVERNMENTS OF THE WORLD SIMPLY CANNOT OPERATE TO CURRENT STANDARDS WHEN 90% OF THE POPULATION IS UNEMPLOYED, UNEMPLOYABLE, AND/OR IN NEED OF ECONOMIC SUPPORT, POTENTIALLY FOR THE REMAINDER OF THEIR LIVES.



OUR CURRENT POLITICAL SYSTEM: HELP OR HINDRANCE?

"A politician is a fellow who will lay down your life for his country." - Texas Guinan

Let's now discuss in more detail how our political systems will deal with, and manage, the problem of increasing automation in the workplace and the impact it is having on workers.

As stated, the age of artificial intelligence will create a situation in which many jobs are at risk of being replaced by machines. This is leading to a decline in wages for many workers and leaving them unemployed and struggling to make a living. Notice that the change we are talking about could leave 90% of the people you know unemployed, and unemployable. Uplifting news, I know.

So, what can our political system do to address this problem? There are two potential approaches that have been proposed: one based on capitalism and one based on some sort of socialism, even if called by other names. Let's take a quick look at each of these approaches and the pros and cons of each.

The capitalist way

The capitalist approach to addressing the problem of automation in the workplace has its pros and cons.

A common capitalist approach to addressing the problem of automation in the workplace involves providing incentives for businesses to invest in new technologies and automation. This can include tax breaks and other financial incentives to encourage companies to adopt AI and other automation technologies faster, helping these companies become more competitive and efficient, which can lead in turn to increased productivity and economic growth.

In the past, this would have been beneficial for society as a whole, including workers, as it would create more wealth and opportunities for everyone.

However, this approach also has its drawbacks, going forward.

One of the main concerns is that it WILL lead to a decline in jobs for workers, as companies adopt automation technologies to reduce their labor costs. As we have seen before, the difference this time is that the technologies adopted are far superior to what humans can bring to the table.

This will leave many people unemployed and struggling to make a living, especially if they lack the skills or education to adapt to the changing job market. Now, in practical terms, what percentage of society could realistically be trained to perform a job in the new era?

Let's analyze the problem carefully.

In order to re-train for a new job, a regular person needs several things:

- 1) The ability to see the looming threat on time, in order to prepare.
- 2) Motivation to take action on the perceived threat
- 3) Energy and health
- 4) Time
- 5) Money to invest in a course, or to pay for the time needed to be re-trained
- 6) An understanding of his own skills, how they fit into the current market, and how they may fit, or not fit, in the future job market

- 7) Creativity to, at least, know what kind of course to do
- 8) Concentration and memorization ability
- 9) Patience and perseverance.

Now, look around you, and be realistic. If everyone you know loses his job or business tomorrow, what are the chances that they would fulfill all the criteria outlined above, in order to successfully transition to a new role in the new society? Do you see now why a 70% or higher unemployment rate is possible?

As you can guess, most people will not read this book and understand the magnitude or impact of the problem. Consider yourself lucky, despite the bad news.

Others simply don't have the health, energy or motivation to enroll in a course. For example, the older, we get the more tired we feel, and the less patience we have.

Yet some others have everything else, but not the money or time to invest in the re-training process. A subset of these, lack patience and perseverance, or the concentration and memorization abilities needed to learn and adapt to the new situation.

Because of all this -despite what you'll hear from politicians- the re-training approach is not a very valid argument, for most people in our capitalist society -at least in the way it is organized today.

Let me give you some examples. Let's say that a truck driver wants to become a programmer – even if programmers wouldn't be touched by the massive wave of automation at hand, which they will. Where would the truck driver start, and how well would she deal with all the challenges that the professional recycling would entail? What about a person that has historically worked in the retail sector as a middle manager, wanting to become a robotic-assisted surgeon, or a metaverse designer? Even if he sees the problem, does this person -currently working in retail- have the time, energy, money, and everything else required to be successful in their recycling quest? And we are not even talking about the debilitating effects brought about by depression...

The result of most people being unable to re-train in time and remain as a “productive and valuable member of a capitalist society” WILL lead to increased income inequality and social unrest, as people who were previously able to support themselves and their families, may now struggle to make ends' meet.

Overall, as we consider both the benefits and drawbacks of the capitalist approach to addressing the problem of automation in the workplace, we can see that the likely proposed solutions to the problem, like minimum support for re-training programs, will be too little, too late.

As we can see, capitalism's traditional ways of dealing with such a problem may not be useful this time. So perhaps it is time to think of alternative ways to organize society that would give us a better chance to do it, right? This leads us to...

The socialist way

The socialist approach to addressing the problem of automation in the workplace is focused on implementing policies that redistribute wealth and provide a safety net for those who are left unemployed as a result of automation.

Like the eventual proposals of politicians from the right and the center of the political spectrum, the low-hanging fruit for our lazy politicians will be to propose to include Universal Basic Income (UBI) programs and other forms of social support to help those affected by automation to continue being able to afford basic needs. Of course, the simplistic apparent reasoning of left-leaning parties will be “everyone has the right to a job and a fair wage”. Their real reasoning, however, will eventually be the same one of the right-leaning parties: “people are losing jobs on a massive scale and getting angry. We are losing control and we do not want them to revolt...so we must give them something to put food on the table, before they storm the castle”.

Needless to say, the main benefit of intervening in markets and subsidizing certain groups of society by force is that in the short term it can help to alleviate poverty, and provide a safety net for those who are struggling to make a living in the face of increasing automation.

This can be especially important in situations where workers may not have the skills or education required to adapt to the changing job market and may otherwise struggle to find new employment –and as we have seen, this may well be 75% or more of the working-age population, in a typical western country.

However, it's important to consider the potential drawbacks of this approach as well.

IMPLEMENTING UBI AND OTHER SOCIAL SUPPORT PROGRAMS CAN BE EXPENSIVE AND MAY NOT BE FEASIBLE FOR ALL COUNTRIES OR GOVERNMENTS, SINCE THE MONEY NEEDED TO IMPLEMENT THESE SUPPORT POLICIES WILL QUICKLY DRY UP AS THE TAX REVENUES DISAPPEAR DUE TO AN INCREASINGLY UNEMPLOYED TAXPAYER BASE.

Additionally, these programs may not adequately incentivize businesses to adopt new technologies and increase productivity, as they may not have enough financial motivation to do so, if an increasing portion of their revenue will be immediately confiscated by the state. This in turn will lead to the migration of businesses out of the country, further debilitating its commercial and industrial base.

Now, even if socialist-leaning parties were able to introduce their philosophies in western countries with a long tradition of living in capitalism, how would they deal with what I call the “motivation problem”? For example, in ex-socialist countries of Eastern Europe there used to be a common, funny saying: “We pretend to work, and they pretend to pay us”. So at the risk of

simplifying a very complex problem and the socialist solutions proposed, let me ask: If everyone is forced to do by force certain things to access a UBI, what will these things be? Or will the UBI come without any strings attached in regards to what we must do to obtain it? and how will we motivate people to produce more and better than others every day, when they're getting the same pay as everyone else and little chances of individual advancement? Moreover, how do we prevent individuals from falling into a depression because of this paradoxical "equal inequality" in the land of socialist utopia? And in a socialist world, what's the role of the successful entrepreneur? Will he or she even be able to exist? And if so, what percentage of his profits will be confiscated for the "greater good"?

Overall, the socialist approach to addressing the problem of automation in the workplace has its pros and cons, and the solutions proposed cannot even start resolving the problem. Whereas the capitalist approach may be simply ineffective, a total implementation of socialistic ideas may also bring additional problems with it.

The hybrid approach may be the only solution

As we can see, while both systems try to alleviate poverty and provide a safety net for those affected by automation, it's also important to consider the potential costs and challenges involved in implementing these policies in the real world.

In my view, ultimately, finding a solution to the problem of automation in the workplace will require a combination of a general awakening and a careful and tailored implementation of the best of both, capitalist and socialist approaches.

By finding a way to balance the need for economic growth and competitiveness with the need to support those who are affected by automation without curtailing their freedoms, we can create a more equitable and sustainable future for all workers, be them independent or working for somebody else.

Now, that is the theory...and what needs to happen. However, in the short and medium term, will all that happen in practice without a great deal of struggle and social unrest?

NO.

Now you know.

The reason is simple: our current politicians and political systems, in the way they work today, will simply not be able to take us out of this problem.

Indeed, our average politicians in the western world are totally ill-equipped to address the challenges posed by this technology in the job market.

The real “cannots”

In previous chapters we have talked about what I refer to as the “cannots”: people that will be displaced by technology, simply because they cannot keep up with the amazing capabilities of modern machines. Unfortunately, the real intellectual “cannots” in our midst are our average current politicians, and here are a few reasons why they simply cannot, and will not, provide the solutions we need:

- 1) **Technological illiteracy:** Many politicians today lack a basic understanding of technology and how it works, making it difficult for them to grasp the full impact of AI on the job market -let alone all the interconnections between AI and the other challenges we face, mentioned in previous chapters. This lack of knowledge WILL lead to poorly-informed decisions and policies, based in a complete lack of vision for the future.
You have been warned. Be prepared.
- 2) **Corruption:** Political corruption is a widespread problem, and it's likely that many politicians will prioritize their own interests over the needs of their constituents when it comes to the impact of AI on the job market. This could mean taking campaign donations from tech companies or pursuing policies that benefit certain companies at the expense of workers. It may also mean that they take absolutely no action when they should, or that they take the opposing action so that the damage to whole portions of society is even worse than it could be.
- 3) **Short term thinking:** most politicians are focused on the “here and now” and are not thinking about the long-term consequences of their actions. This short-sightedness will prevent them from addressing the challenges posed by AI in the job market and instead make them prioritize more immediate and selfish concerns.
- 4) **Psychological handicaps due to aging:** it is a fact that as people age, their cognitive abilities decline, making it more difficult for them to understand complex issues like the impact of AI on the job market, decentralization, the impact of deep fakes on the media, etc...
This will prevent politicians from fully comprehending the problem and coming up with effective solutions.
- 5) **They're already rich:** Many politicians are already wealthy and may not fully understand the struggles faced by the average worker. This can make it difficult for them to empathize with those impacted by the changes brought about by AI and to come up with solutions that truly address the problem. It may also be possible that it is not that they do not understand the struggles of the average worker, but that they are simply not interested in them. Think of the implications of such a state of affairs.
As Sophocles once said: "When money is at stake, even the most intelligent man can be blinded to the truth."

Overall, it's clear that current politicians lack the knowledge, vision, and empathy to tackle this complex issue and ensure that everyone has the opportunity to thrive in the age of AI. Regulatory capture and corruption are also a big part of this problem. As long as private interests in political decisions is greatly reduced, we shall continue having the same problems, just with different politicians, generation after generation.

Solutions at the political level may one day come, but only after great social unrest and old-style revolutions of some sort. This may take years or decades, or worse yet, if the forces of incompetence, laziness and evil prevail, it may never happen and we may just witness a fast decline in our chances of individual success, due to the political class' own lack of ability, resistance to change and unwillingness to adapt to the current situation.

What is the political solution?

Since this is not a book about politics, you can read my personal opinion on this topic in the form of a response at the end of this book, in the FAQs section.

Regulation preventing innovation

Even if our current politicians would have the capacity to deal with the technological unemployment problem, they would have difficulties doing it, as it is a very delicate problem.

On the one hand, if AI is not somehow regulated, at least at the edges, we risk criminals using it to become super-criminals, amateur hobbyists and teenagers learning how to make advanced bombs and viruses "just for fun", or hackers targeting and extracting money and information from victims much more quickly and effectively. They could also damage more effectively hospitals, power plants and other public infrastructure, and with good AI at their disposal, we would never know what hit us, or where the threat exactly came from.

```
how_to_break_into_a_secure_facility.txt  
how_to_create_a_fake_identity.txt  how_to_hack_into_a_corporation.txt  
how_to_launder_money.txt  how_to_plant_false_evidence.txt  
how_to_smuggle_goods_across_borders.txt  
how_to_hack_a_government_database.txt  how_to_perform_a_heist.txt  
how_to_traffic_weapons.txt  how_to_hack_a_bank.txt  
how_to_steal_a_car.txt  how_to_traffic_drugs.txt
```

FIGURE 9 - EXAMPLES OF QUERIES CRIMINALS MAY PASS TO AI¹⁶

On the other hand, if they over-regulate AI, which is what they're most likely to do in the short term due to laziness and ignorance, particularly in Europe, they're likely to provoke all sorts of unintended consequences and economic destruction, including a lack of investment in AI research and development¹⁷.

This will in turn lead to higher prices for consumers and loss of international competitiveness. If the laws are not worded properly, the problem will be even worse, for regulations that are too broad or vague lead to confusion and uncertainty, stifling innovation even more. A clear example of this would be some of the rules related to data-protection: if we go too far in one direction, the repercussions will be immediately felt on the other direction, with the rapid and healthy development AI-related companies and work methods being greatly restricted or prevented, at a time when countries and economies need this development the most¹⁸.

Following with the data protection example, current laws in Europe require that our systems "do not discriminate based on age, disability, marital status", etc...and that AI systems' decisions can be explained to those who demand an explanation of its decisions.

¹⁶ <https://i.redd.it/wyuk3hbyry9a1.png>

¹⁷ <https://www.theguardian.com/media/2023/jan/16/tech-bosses-face-jail-if-they-fail-to-keep-children-safe-online-after-commons-deal>

¹⁸ <https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/explaining-decisions-made-with-artificial-intelligence/part-1-the-basics-of-explaining-ai/legal-framework/>



FIGURE 7 - HOW POLITICIANS WOULD MAKE US BELIEVE THAT THEY LEAD SOCIETY



FIGURE 8 - HOW THINGS REALLY ARE. REGULATION FOLLOWS INNOVATION AND SOCIETAL IMPACT (OR CHAOS). ONLY THEN REGULATIONS ARE ENACTED, AND OFTENTIMES THESE ARE IMPERFECT AND BEHIND-THE-TIMES. NOTICE THAT EACH ONE OF THESE STAGES MAY BE YEARS APART

Now, let's visualize a situation in which a person is denied a bank loan by an AI-assisted system to a customer that happens to be disabled, and single. The AI got to this decision by either asking the client directly about his mobility status, or where this is illegal, through inference by exchange of data with other institutions (through analysis of the customers' spending habits, etc...)

In the light of the law, this single, disabled person should have the same chance of getting a mortgage than a married, non-disabled individual. However, this will not be possible, as the AI may have been trained with historical data sets that are simply more statistically likely to deny the application of a disabled individual. Due to the nature of how these systems are trained, the bias would be embedded in the system, by its very nature, and would be extremely difficult to remove.

The next issue is the already-mentioned "black box problem". Not only it is difficult to remove certain human biases embedded in the systems, but the most sophisticated the system is, the more difficult –or plain impossible- it is to explain how the system reached a particular decision, since hundreds of thousands of factors may be involved in the calculations that led to it.

Coming back to our example, if this is the case, then the company 1) cannot explain exactly how the system got to its decision and 2) the system is likely to have a bias. This will cause politicians to either fine the offending bank with billions in fines –sometimes even retroactively for damage to previous customers- or simply prohibit that they use such a system in their loan-approval process.

From the consumer's point of view, it sounds like a "win".

The problem is that if that bank wants to compete in the global stage, these local regulations will make it much more difficult for this bank to succeed, since it will be competing with banks in countries that are not prohibiting the use of the latest technologies in that sector.

Eventually, due to these regulations that bank will go out of business, and the ripple effects of similar situations in the broader economy will prevent the disabled person from having a job, at all.

What will our "dear leaders" do?

Following historical trends, unless there is a radical change in politics, it is not difficult to see what politicians will do, when facing the AI challenge:

- At first, they'll do nothing. The problem is too complex and multi-faceted to be professionally tackled, and as we have seen, they're too old, corrupt or rich to understand it, or even be interested in understanding it. Thus, they'll procrastinate dealing with it, preferring instead to distract the public with trivial concerns, as usual
- Then they'll do something stupid, poorly planned and executed in an even poorer manner, but it will make them appear as if they're dealing with the problem, in favor of the citizens. Great PR opportunities for them at this point...
- Then they will do something even more stupid, but this time favoring specific companies, interests, or sectors. (lobbyists also take some time to elaborate and deliver their marching orders to politicians)
- Then something even more stupid than the previous stupid thing, but this time will be something that decimates the individuals' chances of success even more directly.

As we can see in this tongue-in-cheek, yet serious analysis of our current situation, we cannot expect effective political solutions of any kind to this problem. Even if they were to arrive, the passing of two decades, or the "people's revolution", may have already turned things around.

To top it all off, even IF we had capable politicians at the helm, they could not do much anyway to stop the upcoming tide of technological unemployment, since due to their poor planning and foresight, there simply won't be enough public money to enact wide-ranging policies to this end.

In conclusion, since we cannot expect change at the political level that will provide some sort of economic support for us, it is up to us, with information like that in this book, to reflect, plan and implement our own strategies for success.

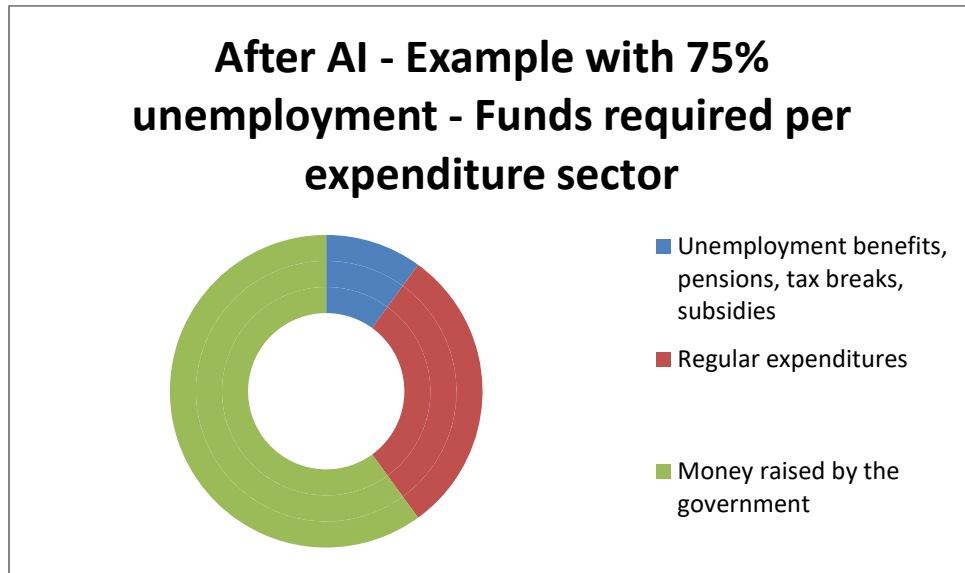


FIGURE 10 - BEFORE THE AI REVOLUTION. AT 10% UNEMPLOYMENT, BENEFITS PENSIONS AND SUBSIDIES ARE ONLY A PORTION OF THE MONEY RAISED BY THE GOVERNMENT

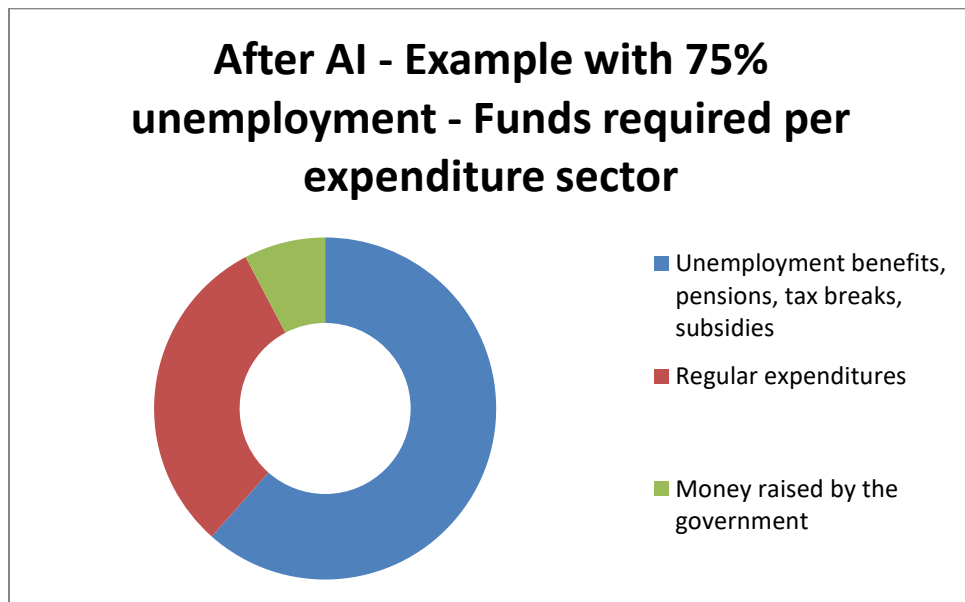
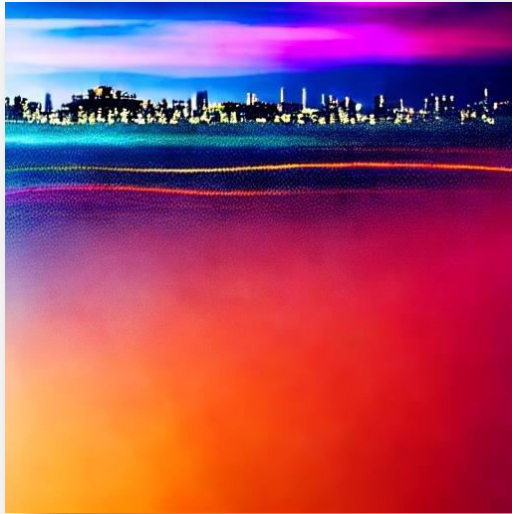


FIGURE 11 - AFTER THE AI REVOLUTION. AT 75% UNEMPLOYMENT, THERE'S NOT ENOUGH MONEY IN THE COFFERS TO CONTINUE PAYING FOR BENEFITS, PENSIONS AND SUBSIDIES AS IN THE PAST.



Is UBI THE SOLUTION?

"TECHNOLOGY IS A USEFUL SERVANT BUT A DANGEROUS MASTER."
- CHRISTIAN LOUS LANGE

One potential theoretical solution to AI impact on jobs is to implement a universal basic income (UBI) program, which would provide a guaranteed income for everyone regardless of their employment status. This, we are told, could help to mitigate the negative effects of automation on the job market and ensure that everyone has the resources they need to live a decent life.

As things are, we are already on the way to be presented with CBDCs and digital IDs as the solution to these problems. Unfortunately, since a large portion of the population is not very bright, and will be in a very desperate situation, this will be seen as a good thing. After all, who doesn't like free money?

However, UBI will not only NOT be the solution we expect it to be, but instead it will leave us more vulnerable to the environment, as it will most probably be tied to Digital IDs and CBDCs, further limiting our abilities to migrate to where the jobs are, invest or set up an independent business, and generally enjoy our life and freedom. We should be careful what we wish for.

UBI, regardless of its final form, will most probably come with strings attached we should be extremely aware of.

THE MOST PROMINENT DANGER OF SUCH AN INTEGRATION BETWEEN UBI, DIGITAL IDS AND CBDCs IS THE IMPLEMENTATION OF A TOTALITARIAN TECHNOLOGICAL SURVEILLANCE STATE, IN WHICH THE GOVERNMENT HAS THE POWER AND THE INFORMATION TO ACCESS THE LATEST FRONTIERS OF THE ESSENCE OF THE INDIVIDUAL, INCLUDING WHAT HE BUYS AND WHERE, WHO HE MEETS WITH, AND EVEN WHAT SUBSTANCES GO INTO HIS BODY.

What are Digital IDs?

Digital IDs are electronic identities used to authenticate and verify an individual's identity through an electronic system or database. Digital IDs are used for a variety of purposes, such as online banking, online shopping, and accessing secure websites. There is a strong push by certain governments to also use them to access government services, such as filing taxes, or obtaining a new passport or driving license.

Digital IDs are typically issued by a trusted third-party, such as a bank or government agency, and are unique to the individual.

In theory, digital IDs are secured with encryption, making them difficult to forge or counterfeit. They are also advertised as secure and confidential¹⁹, but none of these things can be guaranteed, in any way.

In practice, all sorts of leaks and hacks have already happened involving government entities either being wide open for these attacks, sharing this very private information²⁰, or simply losing track of the exact location of information provided to them²¹.

It is very important to be aware of the false advertising related to these "advances", particularly when their security and confidentiality depends on people working for the government that do not pay with a loss of their income if your data is lost or accessed by third parties.

"(2015) A HACK OF GOVERNMENT COMPUTER SYSTEMS EXPOSED THE PERSONAL INFORMATION OF OVER 21 MILLION PEOPLE. THE HACKERS STOLE HEALTH AND FINANCIAL HISTORY, PERSONAL ADDRESSES AND PLENTY OF OTHER PERSONAL INFORMATION IN THE PROCESS."²²

¹⁹ <https://www.bbc.com/news/world-australia-50040819>

²⁰ <https://www.theguardian.com/australia-news/2017/apr/28/federal-police-admit-accessing-journalists-metadata-without-a-warrant>

²¹ <https://www.theguardian.com/politics/2007/nov/21/immigrationpolicy.economy3>

²² <https://www.executech.com/insights/the-5-scariest-data-breaches-in-government/>

What are CBDCs?

Central Bank Digital Currencies (CBDCs) are digital versions of a country's traditional currency that are issued and regulated by a central bank. In theory, "CBDCs are designed to combine the convenience of digital payment systems with the security and stability of traditional currencies".

CBDCs are also intended to reduce the cost and complexity of payments, as well as provide access to digital financial services to those who may not have access to traditional banking services.

By issuing digital money, the issuer has the power to:

- track where, when and by whom this money is being spent, in real time
- prevent, limit or invalidate expenditures on items the government desires to limit access to (e.g. firearms, alcohol, sugary drinks, tobacco, etc...)
- withdraw the permission to spend the money past a certain date
- require a certain amount of "money" to be spent at regular intervals or at certain dates, for example, with the intention of "keeping the money moving in the economy", or to encourage spending / production / credit
- prevent, limit or invalidate expenditures at, or out of certain cities or locations within cities
- automatically fine citizens anytime, by deducting money directly from their electronic wallet, without warning

Once the government is managing which companies may benefit from our spending of electronic money, the door is also wide open for companies to lobby and bribe members of the government, in order to be the ultimate beneficiaries of such rules. After all, if we are managing a company, wouldn't we love to make it illegal or difficult to spend money at businesses that compete with ours? This unfair advantage can be worth a lot of money.

WHEN YOU'RE DEPENDENT ON A PERSON, SYSTEM OR GOVERNMENT, THEY HAVE ABSOLUTE CONTROL OVER YOU

CBDCs and Digital IDs = ?

So if digital IDs are not secure, may not be essential, and CBDCs are not a real solution for our economic problems, what are these systems good for? Surveillance and control come to mind.

As the world is organized and managed today, if the population remains ignorant of the dangers detailed, the amalgamation of UBI, CBDCs and Digital IDs will eventually be integrated into a network that may well end up being akin to China's social score. Not only limiting our movements, but also enforcing the state policies at the molecular level of our bodies if and when we are forced to inject ourselves with whatever technology the government chooses to inject us, -in order to deal with the "crisis" of the day- or risk losing our UBI payment.

In the predictable push for UBIs, we are going to be given slogans such as "Change is the only way to break free from the chains of the past and embrace the possibilities of the future!". As a marketing message, this will fool many to go straight into it, without questioning the methods, motivations and goals of those pushing hard for this change.

However, like a wolf in sheep's clothing, the final reality of UBI may well be the exact opposite of how and why the government promised to impose UBI-related policies. We may not be freer, wealthier and have more opportunities to do what we want using these electronic systems, at all. UBI may not be the promised pathway to get us out of this crisis, nor good for society in general either.

In light of all this, we must be extremely aware of the ultimate intentions of those pushing for UBI. "Technology is a weapon whose effects depend on who holds it in their hands and at whom they point it", and modern western governments have a reputation for pushing hard to obtain greater powers over every aspect of our lives.

Having made this point, here's a final, important reminder, we should never forget:

PROGRAMMABLE MONEY CAN BE PROGRAMMED AGAINST YOU.

Cash may be inconvenient to carry, and feel "old-fashioned", but it doesn't come with real-time surveillance functionalities.

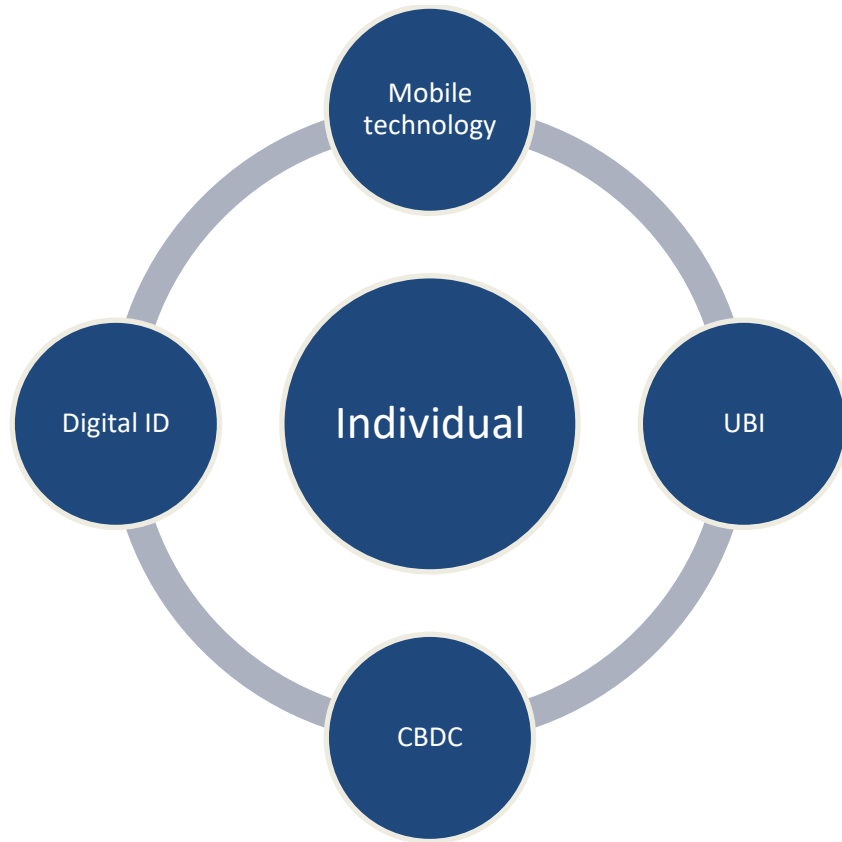


FIGURE 12 - AN INVISIBLE FENCE, SUPPORTED BY ITS TECHNOLOGICAL PILLARS, SURROUNDING EVERY INDIVIDUAL IN SOCIETY, KEEPING HIM TRACKED AT ALL TIMES. SHOULD THE CITIZEN DO SOMETHING "ILLEGAL" OR NOT SURRENDER TO THE STATE'S DEMANDS, INCLUDING THOSE REGARDING BODILY AUTONOMY, FUNDS MAY AUTOMATICALLY BE CUT OFF AND ID MAY BE INSTANTLY CANCELLED



TOP 10 STRATEGIES TO MINIMIZE THE NEGATIVE IMPACT OF AI IN YOUR PROFESSIONAL LIFE

"CHANGE IS HARD AT FIRST, MESSY IN THE MIDDLE, AND
GORGEOUS AT THE END."

- ROBIN SHARMA

In the environment described so far, what can professionals do to stay relevant and competitive in this age of AI? Clearly, it's more important than ever to stay informed about the latest developments in the field and to continuously develop your skills, but is there anything else we could do?

Yes, a personal, well-designed plan to withstand the AI revolution, should be based on:

- 1) Understanding
- 2) Preparation
- 3) Implementation
- 4) Further monitoring and adjustment

Going into this plan in general terms, our “understanding” of the problem will help us see all its different angles, repercussions and interconnections. This book and similar materials are an excellent first step in that direction. Learning as much as possible about the problem at hand will also give a boost to your confidence and help you step out of any kind of defeatist attitude you may be tempted to develop when facing your current predicament, or after having read the chapters here, describing the magnitude of the problem.

The step of “preparation” is related to making a good “attack plan”, based on the combination of your newly-found knowledge and your experience and skills. Scour the web and ask your relatives, colleagues, ex-colleagues, etc... for ideas of potential professional opportunities and brainstorm:

- 1) what can you do best
- 2) what others think you could do best (they may give you unexpected ideas)
- 3) how to integrate what you currently do or know with AI to generate profits.
- 4) what completely new things you could do, that may give you an edge

It's good practice, at this stage, to also scan the environment for potential unnoticed or unusual openings and courses that could help you sharpen your skills to integrate yourself better with the AI world. Above all, seek out opportunities to learn new skills and technologies, such as through professional development courses or certifications. These include both technical skills related to your field and general skills such as problem-solving and communication.

Remember that you have to bring more value to the table than ever before. Fortunately, for some time humans may still be needed, or preferred, to recruit and manage remote teams, present, negotiate, sell or persuade others...so polish all those skills as soon as possible.

Other crucial skills to acquire or develop are:

- writing
- critical thinking
- quantitative reasoning
- oral communication

- intercultural skills
- information literacy

“Implementation” refers to taking action in the previous step. For example, cold calling new and old potential employers and testing hypothesis in the real world, like doing market research by A/B testing different ads for different potential business ideas, or applying for totally different positions and evaluating the quality of replies.

Look for ways to differentiate yourself and add value to your role. This could include developing expertise in a niche area or finding ways to improve processes and efficiency using AI to reach conclusions or give suggestions, and give your “human touch” to tailor computer-generated solutions to the real world.

Lastly, if you choose to go on your own, once you are running a business that starts to get off the ground –even slowly- or you have found a professional opportunity, it’s very important to stay aware of any and all developments in your sector and any other news that may increase your chances of success, and/or prepare you for future challenging situations.

If “the bull” is taking you by surprise this time, do not let it happen again. At least now that you know that there are bulls about...it’s your job now to keep your eyes wide open to see the next one coming. Staying informed about the latest developments in AI and how they may impact your field will help you anticipate potential changes and stay ahead of the curve.

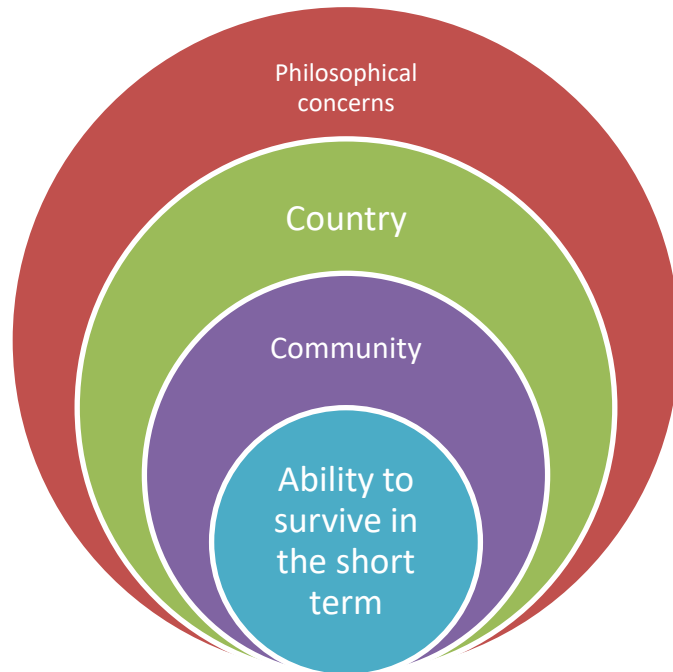


FIGURE 13 - IT IS ESSENTIAL AND URGENT THAT YOUR FOCUS IS IN THE RIGHT PLACE. CONCENTRATE ON SOLVING THE BASIC PROBLEMS BEFORE YOU WASTE TIME THINKING ABOUT THE ONES THAT MAY AFFECT YOU LESS, OR YOU HAVE NO POWER OVER

You will also do well to network and build relationships with other professionals in your field, and be proactive in your career development. Do not wait for opportunities to reach you. In “the age of confusion”, everyone is too distracted, stressed or busy to think about your needs and opportunities. You will have to go for them yourself.

Consider also building a side hustle or developing a skill that can be monetized outside of your traditional job. The more sources of income you have, the less you may be hurt if one of them runs dry. Talking about side hustles...

Building your brand: the only emergency exit left?

In the age of AI, it's more important than ever to build your own personal brand and become a mini-celebrity in your field.

While it's true that machines may be able to take over many tasks and jobs, humans may still be appreciated for their unique abilities and characteristics, particularly when informing or entertaining other human beings. By building your personal brand and becoming a mini-celebrity, you can safeguard yourself against the risk of becoming unemployed, or create a profitable side job that may become your main source of income in the future.

One way of building your personal brand is to become a curator of information in your specialty. With so much information available online, it can be overwhelming for people to stay up-to-date in their field. By curating the most important and relevant information and presenting it in a personal, clear and concise manner, you can provide value to your audience and establish yourself as a thought-leader in your field.

Another way do it is related to “the arts”. Can you sing, dance, act, teach public speaking or some physical skill, like gymnastics or martial arts or painting? Can you do anything else that is hard to replicate by the machines in the short term, or that –like being taught martial arts by a robot- feels “wrong” when done by a machine? If so, you may have an opportunity there, by focusing on expressing and teaching that skill to an audience online. And don’t forget market niches and localization: for example, it may be difficult to become popular teaching “making money online” in English, when there are a million others already doing it, and doing it well. However, it may be much easier to become the leading voice in the niche of “knitting traditional African caps for cats, made of wool” and you produce your content in Swahili, concentrating on reaching a Kenyan audience, first.

Regardless of the niche and market you choose, concentrate on providing true value to your first “1000 true fans”, and the money will come later. Your first true fans are people who are deeply interested in your work and are willing to support you financially and emotionally and help you stay motivated to continue producing content even when you hit a bump on the road.

YOU DON'T HAVE TO BE A GLOBAL STAR TO PAY THE BILLS – BY FOCUSING ON BECOMING A MINI-CELEBRITY AND GETTING YOUR FIRST 1000 TRUE FANS, YOU CAN BUILD A LOYAL AND SUPPORTIVE FOLLOWING THAT WILL HELP TO SUSTAIN YOUR CAREER IN THE LONG TERM.

Just concentrate on producing quality content from the start, learn as much as you can about that trade, and eventually you’ll be successful.

Another important thing to be mindful of when building your personal brand, is “platform dependence”. Don't put all your eggs in one basket and rely on just one platform or social media site to reach your audience. Instead, diversify your presence and build a following on multiple platforms to ensure that you have a diverse and resilient audience. This is very important. If possible, send them to a place that doesn’t depend on any platform, such as I do with my personal website, javiermarti.co.uk

That way your fans can stay in touch with you, even if your favorite platform was to disappear tomorrow, or for whatever reason you were to lose access to your account.

Overall, building your personal brand and becoming a mini-celebrity is an important step in today's rapidly changing world, and may eventually be the only “emergency exit” left to many of us.

By focusing on providing value to your true fans and becoming a curator of information in your specialty, you can differentiate yourself from the competition and increase your value in the job market, should you decide to go back to it after being successful creating your brand. By taking all these steps, you can safeguard yourself against the risk of becoming unemployed in the future and build a rewarding and fulfilling career.

Ever thought of writing a book?

Although books like this one will never make you rich, writing a book can be an incredibly effective way to showcase your knowledge and expertise. A book serves as a tangible representation of your understanding of a particular topic, and can help you to effectively “establish your brand”.

Another one of the main benefits of writing a book is the opportunity to present your unique perspective and ideas. By delving into a specific topic in depth and presenting a well-reasoned argument, you can differentiate yourself from others in your field and showcase your expertise.

In addition to serving as a marketing tool, writing a book also has personal benefits. The process of writing a book requires persistence, concentration, and the ability to structure and organize your thoughts. This process can turn you into an even more knowledgeable person in your sector, as you are forced to thoroughly research and understand the topic at hand. And like with everything else in life, you get better at it over time.

Once you got it written you may be interviewed about the topics you mentioned in the book, going deeper into a particular topic that your interviewer or his audience finds intriguing, controversial or interesting, like my claim in this book that “we may reach 70% or more unemployment in many sectors, in the near future”.

Writing a book can be a time-consuming and often challenging task that requires discipline, dedication, and the ability to persevere through difficult periods, but if you are willing to put in the effort, the rewards can be well worth it.

= = =

WARNING: although you may be tempted to do so, and some people even advise it, do NOT use any kind of AI to write a book for you. AIs can be a great tool for research or ideas, but if the aim of your writing a book is to position yourself as an expert and you use a ghost writer or an AI to

write your book, a) you may not enjoy at all promoting it, or being interviewed about it, and b) you will quickly be found out when they see that you know a lot less about your topic than you pretended to know by “writing” your book.

Instead of being a fraud, be honest with yourself and others, write a book on something you’re passionate about, and you’ll be pleased to let the book be a part of your life in the future.

= = = =

What kind of content could you create?

The brainstorming notes in the next page, and the diagram below, are great tools to help you bring disconnected thoughts in your mind to a concrete list of steps and objectives, narrow down on what you can offer, over which platform, and to what exact market. From there on you just have to choose the delivery method and create a product or service to reach your market. Remember to try to stick to niches that are not already crowded and to skills that you know and like, and are difficult to replicate by machines:

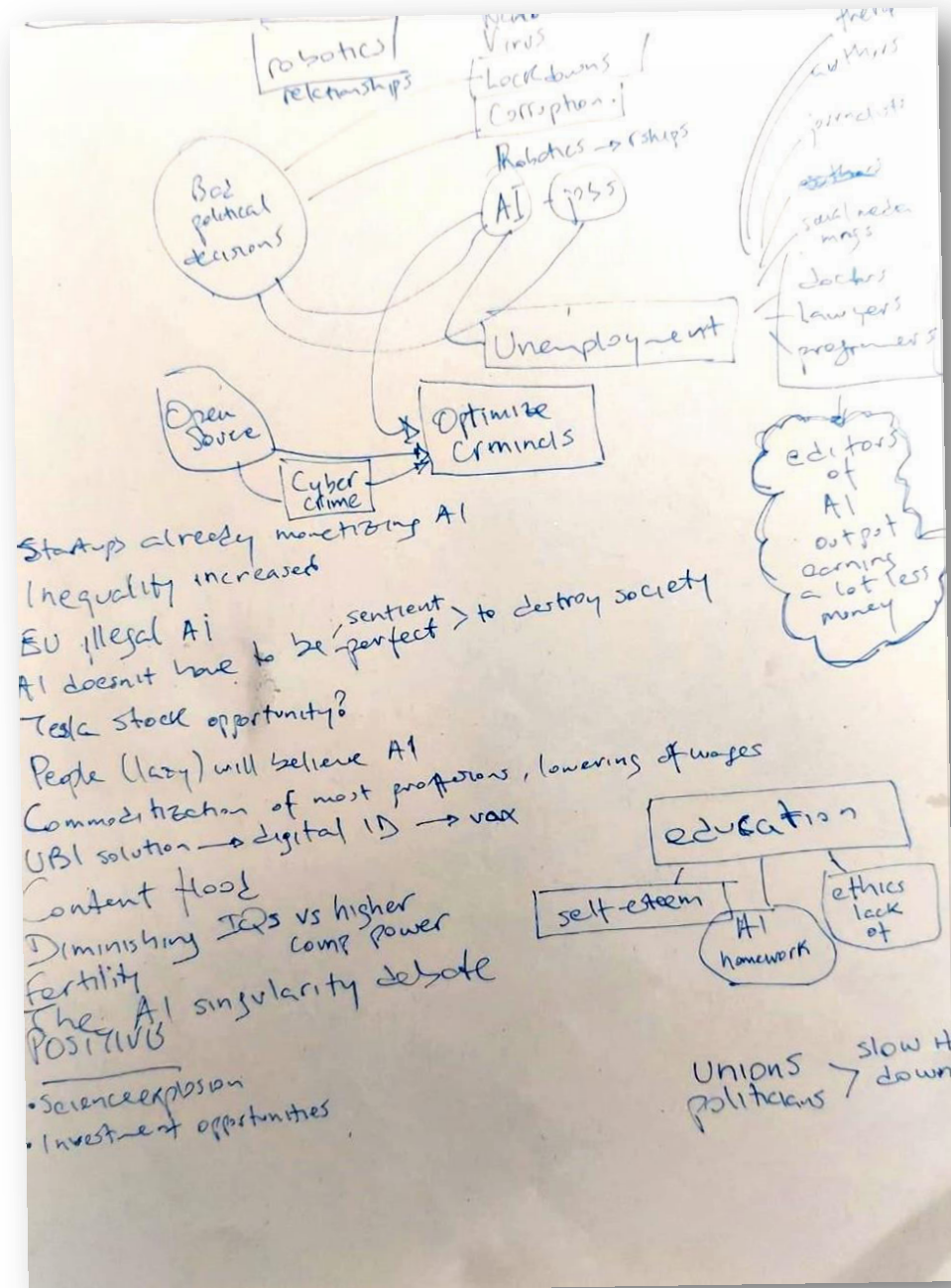


FIGURE 14- HANDWRITTEN BRAINSTORMING NOTES THAT WERE SOON AFTER CONVERTED INTO THIS BOOK. IF I CAN DO IT, YOU CAN DO IT.

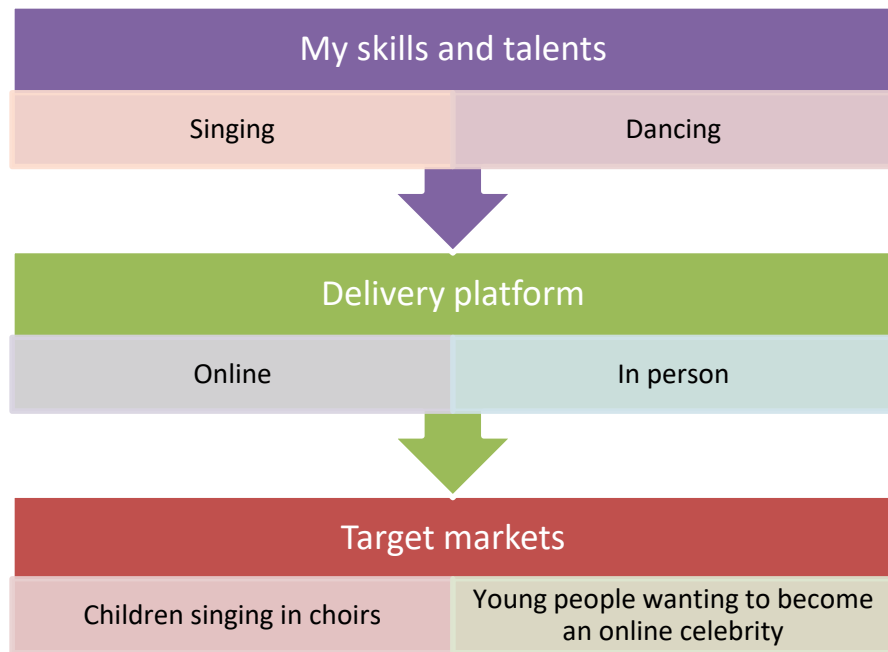


FIGURE 15 – EXAMPLE OF BRAINSTORMING CHART TO CREATE YOUR OWN SERVICE OR PRODUCT.
 THE “SINGING” AND “DANCING” SKILLS IN THIS DIAGRAM ARE JUST AN EXAMPLE. REPLACE THOSE WITH SKILLS
 RELEVANT TO YOURSELF AND YOUR SITUATION

Consider moving away

The impact of artificial intelligence on society and the economy and the rate at which things change, is likely to vary across countries. As it happens with different professions, some countries will be more affected by the AI revolution than others, depending on a variety of factors, including their level of economic development, their technological infrastructure, their investment in AI research and development, and their workforce skills and education levels.

Paradoxically, it is likely that some countries that will be at the forefront of the AI revolution, leading the way in the development and adoption of new technologies, may be affected first by strong waves of unemployment. Developing countries will also feel the power of these waves, but it may take a bit longer for less-developed societies to feel the effects of this change for several reasons, for in those places:

- Many jobs are manual in nature and never got a technological component to begin with (e.g. artisans or drivers of small local buses hauling cargo and passengers between small, remote villages in Russia or Fiji)
- Due to the nature of the jobs available or cultural factors (e.g. selling home-made food on the streets of Mexico city) there may still be a demand for basic, hand-made or typical

products, for some time

Other countries will be slower to adopt AI technologies, or may face more challenges in integrating them into their economies and societies, for good and bad. These countries may need to invest in education and training programs to help their populations adapt to new technologies and changing job markets, and may need to adopt policies to support the development and adoption of AI technologies. Until then, you may have an opportunity there.

Needless to say, the idea of a middle manager or accountant moving to the last known village in the mountains of Nepal to make a living as a tourist guide, is not very attractive at all. However, what is the alternative, when the time comes and this person cannot find a job anymore? To run out of savings and be evicted of his London property due to his inability to pay the mortgage? Food for thought...

Some particular areas of countries like India, Pakistan, Bangladesh, Ecuador, Brazil, Nicaragua and Nepal have relatively low levels of internet, water and power infrastructure. Additionally, some of these countries do not have a large enough population of skilled workers to take advantage of AI-enabled technologies, and there is a lack of financial resources available to develop the necessary infrastructure. Finally, there is a lack of access to educational opportunities in these countries, which limits the potential for individuals to gain the skills required to develop and use AI-driven technologies.

AT FACE VALUE, SOME OF THESE LOCATIONS MAY SEEM LIKE THE LEAST DESIRABLE PLACE TO VISIT, OR LIVE IN. HOWEVER, IF WE ARE DISPLACED BY AI IN MODERN, WESTERN COUNTRIES AND END UP HAVING TO GO TO LIVE ABROAD, WE MAY DISCOVER THAT WE ARE EXACTLY THE KIND OF PEOPLE THESE COUNTRIES NEED MOST, PRECISELY BECAUSE WE CAN HELP THEM TO DEVELOP AND USE TECHNOLOGY IN SMART WAYS.

How surprised would you be to discover that because of reading this book, one day, a few years later, you find yourself as the main provider of solar solutions in the small city of X, in the undeveloped country Y, and you are just coming back from installing a new array of solar panels in a school that badly needed it? Or perhaps you came up with a way to export traditionally-made musical instruments from a village in Burma to the West through your contacts and ideas? In that case you would have gone from unemployed and feeling hopeless in New York or Tokyo or Amsterdam, to independently thriving as a relatively wealthy and respected member of your new community.

Imagine...going to live in a third-world country could feel like going to live in the past...but you would have all the advantages of having lived in “the future”, and knowing how things worked and were done there. If you are a smart and creative person, you could have many “I wonder

why they don't do it this other way" thoughts. Maybe they did not do it in another way because someone precisely like you was needed to help them see what is possible.

Depending on where you go to live, you may see plenty of opportunities for you, based simply on what you know and what you have seen in your original country. You could be appreciated by the community, as "the strange foreigner up the hill that always has creative ideas and is helping us build X in a smart way".

In the end of the day, we only need food, shelter and love²³. If you move away you may fulfill those three essential needs in spades, at a time when they were increasingly being denied to you in our modern society, for no fault of your own.

THE WORLD IS A VERY BIG PLACE. THERE MAY BE OPTIONS OUT THERE WE KNOW NOTHING ABOUT. EXPLORE EACH ONE OF THEM, REGARDLESS OF HOW OUTRAGEOUS THEY MAY SEEM. ONE MAY BE PERFECT FOR YOU

Oh, and don't forget to start this exploration today, before everyone else is having the same idea, or you have already been displaced by AI and gotten to a position when you don't even have the minimum funds to explore these options.

Let's talk now about how you make a living, and how you should do it going forward...

²³ In my book "The happening of happiness" I describe in detail many of the things that make us feel depressed in modern societies, and provide a blueprint on how to feel better and get rid of depression. However, if your environment is not conducive to happiness, you will hardly be able to be truly "happy", regardless of your inner efforts to feel better

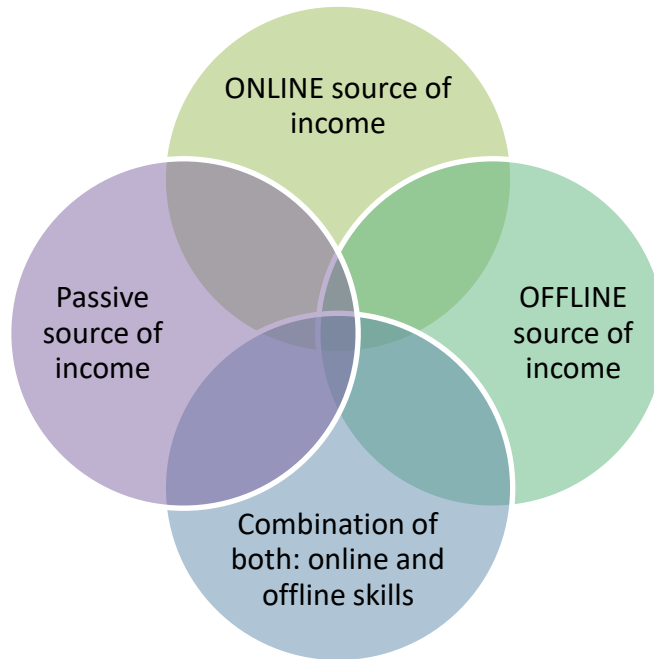


FIGURE 16 - JAVIER MARTI'S MODEL OF 4 IDEAL SOURCES OF INCOME

Javier's 4 pillar model of the ideal income balance

Seeing how AI will change the employment market and may affect your job situation anytime, without warning, you should have, at minimum, two sources of income.

Ideally, however, you should aim to build FOUR different sources, as soon as possible:

ONLINE income. Examples: a website you own that is profitable but requires daily your attention like an online shopping portal, a video channel, etc...

OFFLINE income. Examples: being a plumber, cleaning pools or gardens, being a helicopter pilot, paramedic or bus driver... either working for yourself or others.

COMBINATION of both. Examples: you are a plumber but you publish a course online on how to do basic DIY, or you are a lawyer but make reaction videos online, or you are a butcher that delivers to your local area but also sells online.

PASSIVE source of income. This is the "emergency" income, in case you cannot work in any of your "jobs", for any reason. Examples: you receive royalties from a book or piece of music you produced many years ago, rent money paid by tenant for a property you own, advertising income from a video channel, royalties from an invention you patented, profits from company shares investments, etc...

The goal of this system is to continue being able to maintain your life style in the event of your being fired from your job, there is an economic crisis in your country, you fall sick and cannot

work anymore for some time, or the internet goes down either for a few days or a few weeks, where you live.

The wider and more international your visitors/audience, the more secure you will be. You will also be in a better position if one of your jobs is working, yet the others are working for yourself and one is “high tech” and international –e.g. software developer- but another one is low tech and local –e.g. being a baker or a security guard.

YOU NEED TO THINK IN TERMS OF THE BEST COMBINATION OF SKILLS AND SOURCES OF INCOME, SO THAT IF/WHEN AI COMES TO YOUR SECTOR AND DRIES UP ONE OF YOUR SOURCE OF INCOME, YOU HAVE A FEW OTHERS OF A COMPLETELY DIFFERENT NATURE READY TO PICK UP THE TEMPORARY REDUCTION OR ELIMINATION OF YOUR EARNINGS.

Difficult? Possibly, but not impossible, and way better than the alternative...

Time to learn to sell?

Whether your source of income is online or offline, local or international, sophisticated or basic, the ability to sell is something that you should develop, practice and master over time.

As we have discussed, if you are going to succeed in the age of AI, you will need to be flexible and adaptable, but at some point that power of adaptation will mean that you have to get out there and sell something. It may be yourself as a potential employee, your new business or startup, or a particular product as part of the sales team working for a third party, if those are the only jobs available where you are.

If you are the kind of person who has “a strong aversion to sales and anything to do with it”, please realize that you already are a salesperson, for you have been “selling” since you were able to communicate. Indeed, throughout your life, each time you wanted something, you had to persuade (=sell the idea and its benefits) someone to do something in your benefit, or in your benefit AND theirs. Perhaps your father and mother were your first “clients” in your sales history, but in any case, you were selling them something...even if it was a smile in exchange for giving you a toy, letting you have some ice cream, or letting you stay awake past 21h.

Depending on the type of person you are, once you lose your fear of selling, you may discover that learning about it is more fun than you thought, your prejudices about this profession were unfounded, and that certain styles and types of sales may be better suited to your ambition and personality. For example, my personal style of selling is more based on consulting with a client, finding out exactly what they need and delivering a solution tailored to their needs based on my knowledge and the product, all along using hypnotic sales patterns to target the subconscious

mind²⁴. However, you may discover that you prefer to sell in a faster-paced, high pressured environment, or that you enjoy more a combination of both, perhaps selling high-ticket items, in which you may spend a whole year establishing relationships and building up the sale over many meetings, for a big payout at the end.

There are always selling jobs out there, and even in the age of AI, there may still be many jobs available either to sell directly human to human, or to be part of a finely-tuned system assisted by AI. In any case, selling could be a totally valid option for you that you never had to consider before, and you may like it more than you thought, once you've tried it. From chemicals to planes to jewelry to houses to courses, services or ideas...there are a lot of people already selling something out there, and doing very well for themselves.

As long as humans can communicate, the oldest profession in the world –no, not that one- will stay around. Unfortunately, as in the story of Westinghouse and Tesla, whoever can sell better, will succeed, so here's a thought for you to remember and motivate you to face your fear and learn to sell today:

REGARDLESS OF WHAT YOU DO, 50% OF YOUR ABILITY TO SUCCEED IN LIFE WILL DEPEND ON YOUR ABILITY TO SELL.

If you prefer to do your selling (and buying) online, there's another kind of selling that you may also want to consider...

Trading as a profession?

Trading, or buying and selling financial instruments such as stocks, bonds, currencies and cryptocurrencies, can be a rewarding profession for those who are skilled and successful at it. Some of the potential benefits of trading as a profession include the possibility of earning a substantial income, working for yourself, and learning something new every day.

Trading can also give you the option of becoming location independent, and it can also be done part time. If you plan to learn to trade, bear in mind that the losses can be as big as or bigger than the wins, so invest only as much as you can afford to lose, particularly during the learning phase.

Another consideration to have is to carefully vet who your teachers will be. There are many scammers and mediocre traders "teaching" how to trade. Do not engage in any long-term or expensive commitment to any course you were not able to preview by yourself beforehand. Another important thing to note is that trading can be a high-risk profession, it's not suited to everyone, and success is not guaranteed, at all. On top of understanding their chosen trading space, traders need to be disciplined and able to manage risk effectively to be successful. They

²⁴ As seen on hypnoticsales.co.uk

also need to be aware of the potential risks and challenges of the profession, such as market volatility, changing regulations, and the potential for financial losses both in the short and the long term, but if there are no better options, it may be one more option for you to consider and explore.

Using AI tools to make money

Although one of the main points in this book is to show you the urgency in avoiding the beautiful technological tsunami in which eventually we could all be engulfed, in the short term, you can apply the philosophy of “If you can’t beat them, join them” to AI and your ability to make a living. Indeed, a wide variety of AIs today provide gig workers with the opportunity to take on a myriad of small tasks and projects to earn a good income.

Moreover, being a first-mover -even if you don’t have the time or expertise to take on larger projects- you may be able to earn money by using AI to sell services to others, like copywriting, making presentations, writing reviews and product descriptions, producing sales pitches, reviews, lists, reports, case studies, and much more. You can even use it to create presentation letters and emails specifically tailored to a job offer you’re interested in, quickly and easily.

If you work for yourself, AIs can also help you to create content for your blog and social media posts, write emails, create scripts for your videos, create programs to analyze data, extract information from the internet and eventually completely automate your social media presence.

Although this is definitely not a solution for the long-term, you may do well in exploring how you can use these tools to make money today, before such services become worthless, because everyone is using them.

Above all, stay positive, adaptable and open to change. You simply have no other option.

Talking about change...if you insist in staying employed, consider switching to a field that is less likely to be automated, or that will be slower to automate, such as fields that require a high degree of creativity or human interaction.



WHAT ARE THE SECTORS TO BE LEAST IMPACTED BY AI?

"WE ARE ALL SPECIAL. JUST LIKE EVERYBODY ELSE."
- UNKNOWN

In general terms, some sectors that may be less impacted by the trend of AI replacing humans in the workplace may include:

- The arts: Jobs in fields such as music, theater, and visual arts are likely to be less impacted by AI, as they require a high level of creative expression and interpretation that is difficult to automate.
- Healthcare: Many healthcare jobs, such as doctors, nurses, and therapists, involve a high degree of personal interaction and require a level of empathy and compassion that is difficult to replicate with AI.
- Education: Teachers, particularly at the primary and secondary levels, play a crucial role in the development of young minds and are likely to be less impacted by AI.
- Social work: Jobs in social work, such as counseling and case management, involve a high level of human interaction and require a deep understanding of human behavior and emotions.
- Customer service: While some customer service tasks may be automated, there will likely always be a need for human interaction and the ability to handle complex or sensitive issues.

Specifically, here's a list of some other jobs that will probably take a bit longer to be fully automated. Is yours in the list?:

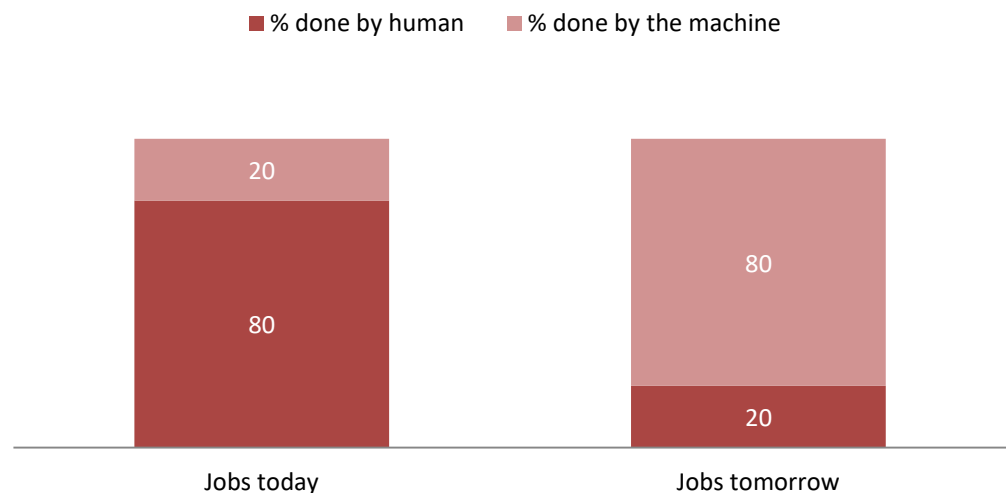
- | | |
|---------------------------|------------------------------------|
| - Psychologists | - Fashion designers |
| - Social workers | - Writers |
| - Teachers | - Editors |
| - Doctors | - Journalists |
| - Nurses | - Librarians |
| - Physical therapists | - Archivists |
| - Occupational therapists | - Curators |
| - Speech therapists | - Museum technicians |
| - Counselors | - Art therapists |
| - Lawyers | - Music therapists |
| - Judges | - Pet trainers |
| - Architects | - Personal trainers |
| - Engineers | - Personal assistants |
| - Surveyors | - Receptionists |
| - Urban planners | - Customer service representatives |
| - Landscape architects | - Salespeople |
| - Interior designers | - Marketing professionals |
| - Graphic designers | |

- Public relations specialists
- Event planners
- Fundraisers
- Human resources professionals
- Recruiters
- Talent agents
- Managers
- Supervisors
- Team leaders
- Project managers
- Business owners
- Entrepreneurs
- Investment bankers
- Financial advisors
- Actuaries

Remember that whilst these sectors and professions may be less impacted by the trend of AI replacing humans in the workplace in the short term, it is still important for you to stay informed about the latest developments in AI and to continuously develop your skills, in order to remain competitive. I also strongly recommend you to have more than one income stream, just in case. Remember that the jobs in this list will in theory take longer to be automated, but new ways of doing things can bring rapid automation to a sector that was previously thought to be immune to it, and with regards to AI in the western world, these changes can happen in months, not years.

Keep your guard up until the storm is gone for good.

More will be done by the machine





PREPARING YOUR BUSINESS TO MAXIMIZE RETURNS IN THE AGE OF AI

"IN THE MIDST OF CHAOS, THERE IS ALSO OPPORTUNITY."
- SUN TZU

Now, in this chapter, we are going to talk about AI from the point of view of business owners and managers, leaving aside any ethical considerations exposed so far about the advent of AI.

As the game of capitalism is played, business owners and managers are tasked with making sure that their business is as profitable as possible, as well as staying one step ahead of the

competition by providing products and services that the market demands. If they fail in this job, they may lose their job, or their business, to faster or more sophisticated market players.

The main advantage of AI for businesses resides in reducing costs by the integration of AI technologies in the enterprise, either using it as an extra tool in the arsenal of capable employees, or to replace them altogether, if their tasks can be performed by an AI.

If you run a business with employees, you know that personnel costs are often the highest cost for any business. Personnel costs include salaries, benefits, and other expenses related to employing and managing a workforce. By replacing human labor with automation, your business can significantly reduce these costs and dramatically improve your bottom line.

As the world becomes increasingly driven by artificial intelligence, it's important that you, as a business owner, understand and proactively prepare for this shift quickly, in order to remain competitive.

Here are some steps that you can take to best prepare for the AI revolution, today:

- **Evaluate every single cost in your production chain, and get rid of any excess weight.** Perform a thorough evaluation of your production system in order to identify unnecessary expenses, bottlenecks that are costing you money, providers that are charging you more than they should, etc...
Moreover, become aware of the ways in which you can replace human labor with automation, both partially and fully, at any level of the organization. As your competition does it, so should you.
If you are on a budget, be informed that as we speak there are sophisticated programs and online platforms in the market that can help you organize and automate your business better - such as CRM, social media automation and logistics software- at a fraction of the cost of advanced AI. If you have had exploring these options in your to-do list, but never actually got to it, it is time to bring them back to the top.
- **Prioritize to educate yourself and your team about AI.** It's important to have a solid understanding of what AI is and how it can be used in your industry. This includes learning about the different types of AI, timelines of implementation, the potential benefits and risks to every department of the implementation of AI tools.

YOUR JOB IS TO INSPIRE YOUR PEOPLE TO DEVELOP AN AI FOCUS IN EVERYTHING THEY DO, SO THAT NOT ONLY ARE THEY FAMILIAR WITH THE CURRENT TOOLS AND WHAT THESE CAN DO TO BE MORE EFFICIENT AT THEIR JOB, BUT THEY ALSO WONDER HOW THE GENERAL PROCESSES AND METHODS OF THE ORGANIZATION CAN BE OPTIMIZED WITH THE HELP OF THESE TOOLS.

- **If possible, get qualified outside help.**

Despite the hype cycle we are about to enter on this topic, unfortunately, I believe that there are not many consultants in the world that are able to envision the main ways in which a business can use AI to increase profits. The reason is that, like to write this book, the skills and experience required to understand all angles of this problem, are rarely found in any one person. For example, technical consultants or technical team members in your organization may not see the angles that the business arm of the company may see. On the other hand, non-technical management members of the team and consultants may simply not be aware of the latest developments in AI, or simply not understand them both in all their advantages, and their limitations. So, handle this particular suggestion with care, but if you can, ideally this is what you should do:

A) get someone impartial, ideally a capable outside consultant and speaker either to come to your company, observe your systems and processes in detail, elaborate a SWOT analysis in regards to AI, and suggest cost-cutting measures and changes that insiders wouldn't dare to suggest, or if you don't find the right person or can't afford it...

B) hire such a person to at least educate your managers on the risks and opportunities of AI described in this book through multimedia presentations, so that their creative fire is ignited in their minds once again, and they focus on doing what needs to be done to keep up with the age of AI.

- **Provide the right data and ask the right questions.** Make sure that the right data is available at the right place and at the right time. If you have not done it yet, it is time to make sure that data gathering happens at all levels of the organization, at all steps of the funnel, and that the output and conclusions of your data science team are accurate and actionable.

The more data you have, the better the output of these tools will be, when you apply them to your business. Thus, even if you cannot afford the best AI the market can offer today, make sure that at least all the systems are in place to gather as much data as possible and use it in the future, retroactively.

Example of "the right question" to ask, after you provided enough accurate data to the system, could be: "How to optimize my X system to achieve Y outcome in a Z period of time, keeping A factor constant and limiting B expenditure to C amount of money".

NOTICE THAT IN THE AGE OF AI, THE QUESTIONS WE ASK THE SYSTEM ARE AS IMPORTANT, OR MORE IMPORTANT, THAN THE STRATEGY WE CHOOSE TO PURSUE. THE MOST SUCCESSFUL BUSINESS OWNERS AND MANAGERS WILL BE SKILLED AI INTERROGATORS.

- **Identify areas where AI can be applied:** Look for opportunities to use AI to improve efficiency, reduce costs, and enhance the customer experience. This may include automating certain tasks,

using machine learning to analyze data, or implementing chatbots to improve customer service. AI can also help you to optimize physical products or brainstorm ideas for future ones.

- **Develop a plan but implement it FAST:** Once you have identified the areas where AI can be applied, integrate these technologies into your business and adjust as you go along...don't wait! Set clear goals, identify the resources needed, create a roadmap for implementation but ACT on it, fast. Some AI-integration experience is better than no experience at all.
- **Invest in the right infrastructure:** To effectively implement AI, you will need the right technical infrastructure in place. This may include investing in hardware and software, as well as training your team on how to use these technologies. Think in terms of the minimum team that can achieve a certain task, when this minimum team is being assisted by powerful AI tools. Consider investing in the best AI systems you can possibly find, since your competition may do it before you if you don't. Due to the immense competitive advantage that a good use of these systems can give a business, there may not be a place on the table for those who arrive late to the party.
- **Foster a culture of innovation and adaptability:** To stay competitive in the age of AI, it's important to foster a culture of innovation and adaptability within your organization. This includes encouraging employees to think creatively, embracing new technologies and approaches, and particularly, being flexible and open to change positions, departments, objectives and timelines. AI-based enterprises are highly dynamic by nature.
- **Monitor and assess your progress:** As you implement AI technologies, regularly monitor and assess progress to ensure that you are meeting your goals and not overlooking a technology that could help you go even further in the pursuit of your goals.

MAKE SURE THAT THE SYSTEMS TO COLLECT AND ANALYZE DATA POST-IMPLEMENTATION ARE ALSO ACCURATE AND AVAILABLE TO THE RIGHT PERSON IN THE ORGANIZATION, WITHOUT BUREAUCRATIC OBSTACLES OR DELAYS OF ANY KIND.

The flow of information from point-of-gathering to executive dashboard should be as fast as it possibly can be.

- **Use AI to discover and exploit viral promotional opportunities.** Learn as much as possible and discover how exactly things go viral. Test different approaches: "ads with people", "ads without people", "on platform A", "on platform B", "on a combination of platforms", "with message A

without mentioning values”, “with message B stressing our values”, etc...

Test, experiment, probe, and very carefully keep a dissecting eye on the results of your tests, before testing again.

If energy drink companies and high-end luxury brands have been able to build an empire based on the power of viral communication, so can your company. You just need to find the keys that work for your sector, timeline and goal. AI and good insight on human psychology can supercharge your efforts in this area.

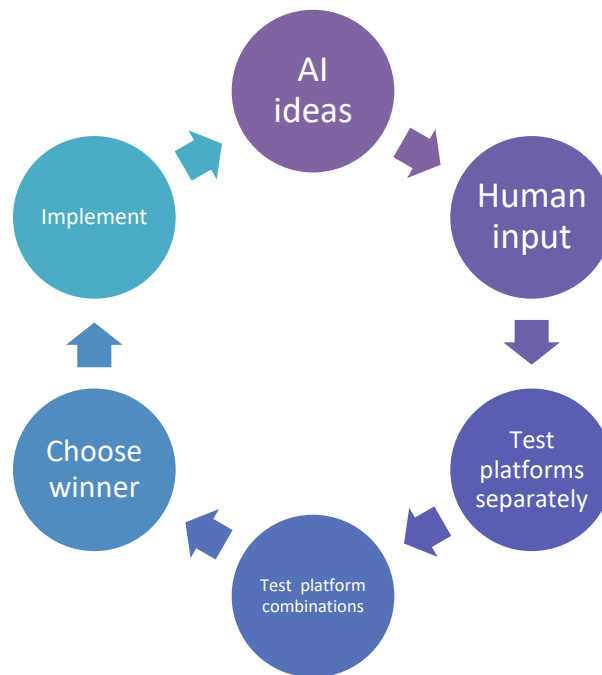


FIGURE 17 - INTEGRATION OF AI ON MARKETING CYCLE.

FOR BETTER RESULTS AI CAN ALSO BE FURTHER INTERROGATED ON EVERY STEP OF THE CYCLE

- **CONCENTRATE ON PROFITS.** Let go of any flavor-of-the-day trend and go back to the basics. It's pointless to follow the steps above and integrate technology effectively if you are losing money due to misguided policies. Your job as a manager or owner is to concentrate on making the company as much money as possible, whilst ensuring that the team is able to do their job to the best of their ability.

OPEN OFFICES? STAKEHOLDER RESPONSIBILITY? INVESTING IN TRENDY SECTORS? BE VERY CONSERVATIVE ABOUT SUCH THINGS AND RENEW YOUR FOCUS ON THE ESSENCE OF THE BUSINESS, AS THE PACE OF CHANGE WILL SOON NOT LEAVE MARGIN FOR ANY ERRORS.

How can AI help run a business today?

In light of the information in this book, you may have the intention of applying AI to your business right away, but not know exactly where to start. Regardless of your business, here are some ideas detailing how you can already use AI to help you run your business:

1. **Answering customer queries:** integrating it into customer service systems to provide instant and accurate responses to customer inquiries.
2. **Content creation:** you can use it to generate high-quality articles, blog posts, and product descriptions.
3. **Data analysis:** AI can analyze large amounts of data and provide insights and recommendations to inform your business decisions. (remember you'll have to gather as much information as possible first!)
4. **Virtual assistant:** assisting with scheduling, email management, and other administrative tasks to save time and improve efficiency.
5. **Customer service:** AI can respond to customer inquiries, resolve customer issues, and provide information about products and services.
6. **Chatbot integration:** you can also integrate it with your current customer attention chatbots to provide personalized, conversational experiences for customers, or generate content for your automated after-sales messages to clients .
7. **Sales support:** assisting you with sales inquiries, providing product information, and handling customer objections.
8. **Lead generation:** AI can be used to generate leads by interacting with potential customers and collecting information on your behalf, say through a survey or feedback form.
9. **Virtual assistant:** assisting with scheduling, email management, and other administrative tasks to save time and improve efficiency.
10. **Partner search:** AI can help you learn what businesses may join you for a collaboration be being complementary or similar to yours, but not in direct competition.

Whether you are a small, medium sized business or a corporation, you'll do well to start today either innovating in the areas mentioned, or integrating AI input, feedback and systems in the workflow of your company and its departments.

AI systems require inputs. The importance of gathering data

As we see, with the help of AI and machine learning, your business can gain valuable insights into your operations, customer behavior, and the market, allowing them to make data-driven decisions that can improve their bottom line. To make the most of these powerful technologies, however, it's crucial for businesses to gather the right data. This data can come from a variety of sources, including customer interactions, sales and marketing efforts, financial information, and more. By collecting and analyzing this information, your business can gain a deeper understanding of your customers, your operations, and the market, allowing you to make informed decisions to improve your performance.

That is all very well, you understand the need for data...but at this point you may be wondering: exactly what kind of data do I need to be collecting?

Here is a list of 20 types of data that your business should already be collecting, in order to optimize their operations with AI and machine learning:

1. Customer data, including demographic information, purchase history, and behavior patterns.
2. Sales data, including revenue, volume, and conversion rates.
3. Marketing data, including advertising spend, conversion rates, and customer acquisition costs.
4. Inventory data, including stock levels, sales volumes, and purchasing patterns.
5. Financial data, including expenses, income, and cash flow.
6. Employee data, including salaries, performance metrics, and turnover rates.
7. Customer service data, including call volume, resolution time, and customer satisfaction scores.
8. Website data, including page views, conversion rates, and bounce rates.
9. Social media data, including engagement rates, followers, and sentiment analysis.
10. Product data, including product descriptions, pricing, and customer reviews.
11. Supply chain data, including supplier performance, delivery times, and costs.
12. Location data, including foot traffic, customer demographics, and sales data.
13. Competition data, including market share, product offerings, and pricing.

14. Logistics data, including shipping and delivery times, transit times, and costs.
15. Environmental data, including temperature, humidity, and air quality
16. Technology data, including software usage, hardware performance, and downtime.
17. Demographic data, including population, income, and education levels.
18. Economic data, including GDP, inflation, and interest rates.
19. Political data, including election results, government policies, and trade agreements.
20. Climate data, including weather patterns, natural disasters, and climate trends.

Needless to say, you will gather as much data as is possible to get in a cost effective manner, but remember, the more data you have the better you can use machine learning systems and techniques that will allow you to see relationships between hundreds or thousands of variables that the human mind would never be able to see. These insights will later turn into real profits once you act upon the data collected.

REMEMBER: WHEN IT COMES TO DATA...THE MORE OF IT YOU CAN COLLECT, AND THE SOONER YOU CAN START, THE BETTER!

Warning: virtue signaling time is over

With the help of the press, in the last decades interesting institutions –often disguised as philanthropic or non-profit companies- and oftentimes misguided activists of all sorts, have succeeded in making companies produce business strategies factoring issues like:

- Climate change and environmental degradation
- Income inequality and poverty
- Racism and discrimination
- Political polarization and division
- Immigration and refugee crises

Following the mantras based on these ideologies, we were told that “it's important to note that while replacing human labor with automation can be a good way to reduce costs in the short term, it can also have negative consequences in the long run. Automation can lead to job loss and unemployment for workers, which can have a negative impact on the economy and society as a whole.”

Under this ideology, companies were supposed to balance the need to reduce costs with the need to “support their workforce, stakeholders and the broader economy”. One approach to this has been to implement policies that ensure that the benefits of automation are shared with workers, such as through training programs and other forms of support. According to them, this can help to mitigate the negative impact of automation on the workforce and ensure that the benefits of technology are shared more widely. Notice anything wrong with that last sentence?

What is wrong with that and similar sentences, is that such philosophies demand that businesses veer too far away from their core mission and dedicate ample time, resources and funds to policies that have nothing to do with profits. Furthermore, such goals are making our companies a tool of someone else’s political objectives and idea of how things should be in the world.

Indeed, theoretically and according to “modern corporate activists”, we have to find ways to balance cost-cutting with the need to support workers, creating a “more sustainable and equitable future for everyone”, whilst also caring about climate change, racism and discrimination, political polarization and other social causes.

Yes, sure it sounds wonderful, doesn’t it? Of course we’d love to have all that, if we all could.

The only problem with all this is that...

IN THE AGE OF AI, DEVIATING FROM THE CORE MISSION OF A BUSINESS, CENTERED AROUND ITS BOTTOM LINE, IS A LUXURY THAT WE CANNOT INDULGE IN. UNLIKE PREVIOUS TIMES, TODAY, ANY BUSINESSES THAT FALL BEHIND THE TIMES OR FAIL TO ENGAGE IN THE PREDOMINANT TRENDS IN THEIR NICHE, EVEN FOR A FEW WEEKS, MAY NEVER BE ABLE TO REGAIN THEIR PREVIOUS POSITION IN THE MARKETPLACE.

Remember: the age of AI is inherently Darwinian. Companies and individuals that are not efficient and effective are quickly pushed out of the market. Thus, in the coming years companies will be increasingly forced by these technological trends to stop implementing environment and stakeholder related policies if they want to be commercially successful, simply as a consequence of there being less money in the consumer market to buy products.

As we have seen, this is due to the fact that as technology continues to advance, many jobs and workers will be replaced by machines, reducing the size of the consumer base. As a result, there will be less money in the consumer market to buy products, lower availability and production of them, and deflationary pressures on the price of those available in the market²⁵.

In any case, as we go forward in time and the crisis deepens, we will witness “woke policies”, stakeholder capitalism and any other strategy or philosophy that deviates or goes against the core commitments of businesses to maximize profits being discarded by capable managers, in

²⁵ Unless economies are in such bad shape that these same items are hard to come by, in which case we could see inflation in the scarce products that still remain in high demand. It will all depend on the magnitude of the collapse.

order to stay alive in the Darwinian fight for market dominance. Companies that are not managed this way will simply perish, or be taken over by their more agile competitors, faster than they realize exactly what their main shortcomings were.

“DESPITE COUNTLESS STUDIES, THERE HAS NEVER BEEN CONCLUSIVE EVIDENCE THAT SOCIALLY RESPONSIBLE SCREENS DELIVER ALPHA.”²⁶

- MICHAEL E. PORTER

Becoming leaner and more agile also means not only getting rid of anything that is not producing a good ROI for our business, but also cutting costs wherever possible, and focusing ruthlessly on efficiency and productivity.

While implementing stakeholder-related policies may be a good idea from a moral or ethical standpoint when the times are good, they can be expensive and do not provide a direct financial benefit to the company, the more competitive the market becomes. Thus, in order to be commercially successful in the face of declining consumer spending, companies will have to prioritize profitability over social and environmental concerns.

Opponents to these cost-cutting policies will state that “neglecting the needs of stakeholders and the environment can lead to negative impacts on the economy and society as a whole”, which can ultimately harm the long-term success of the company. This may true up to a point, but we must also remind such opinionated activists that there will be no corporate decisions, good or bad, if the company dies.

Regardless of the ethical and community-driven warnings of the politically-correct crowd, companies will have to give absolute priority to ensure that a) the business is profitable, b) it constantly adapts to the AI revolution in a timely and efficient manner, without waste of any kind, and c) keeps tracks of both social and market participant’s behaviors...if the company is to survive and thrive in the highly competitive and rapidly-evolving corporate landscape of today.

Once your company is established, has returned to profitability or has integrated technology in an effective and sustainable way...THEN you may indulge in luxuries removed from your core responsibility to help the business survive and prosper. Remember that there’s no stakeholder or corporate responsibility you can pay attention to, if you have gone bankrupt being distracted with what you shouldn’t.

THE MOVEMENT FOR ENVIRONMENT, SOCIAL, AND GOVERNANCE (ESG) INVESTING, AFTER SEVERAL YEARS OF HEADLINE-GRABBING GROWTH, IS ABOUT TO HIT A WALL OF RESISTANCE.²⁷

²⁶ <https://www.institutionalinvestor.com/article/b1hm5ghqtxj9s7/Where-ESG-Fails>

²⁷ https://cei.org/opeds_articles/the-esg-backlash/

As we can see, paying attention to the market trends, current technologies and the bottom line is the only thing that will ensure that our company doesn't end up like IBM, Xerox, Canon and many other companies that lost their dominant marketplace position due to their lack of foresight and implementation of the latest technologies.

12 extra ideas to integrate AI in your business

In order to not date this book I won't give you specific links that may be obsolete soon, but here are some useful ideas you may want to learn more about, or direct your team to work towards, starting today:

1. Improve customer service and handle inquiries faster with AI-powered chatbots. Test how to provide personalized recommendations to customers based on their request.
2. Optimize pricing strategies using AI to analyze market trends and customer data. AI lets you explore dynamic pricing in a smoother way than ever before.
3. Target marketing and advertising campaigns more effectively with AI-powered analysis of customer data. Example: keyword research can be merged with customer data to automatically publish testimonials from your customers on your website and social media, in real time.
4. Enhance supply chain management by predicting demand and optimizing production and distribution with AI.
5. Use AI to detect and prevent fraud: who is defaulting, where, why and at what rate? The addition of AI to your existing tools and reports on this area can indicate even more potential areas of profitability.
6. Implement predictive maintenance with AI to reduce downtime and increase operational efficiency.
7. Automate HR tasks such as resume screening and talent matching with AI. Your HR department should already be saving a great deal of time by using these tools to communicate with potential staff members and recruitments companies
8. Use AI-powered virtual assistants to improve productivity and reduce employee workload.
9. Reduce utility costs. If your business also happens to be based on physical premises that you own or rent, you may also be interested in finding out more how some companies are already using AI to massively reduce costs by optimizing cooling and

heating systems through sensors and machine learning²⁸, so that such systems operate only as and when necessary.

10. Provide AI insights and suggestions directly into financial forecasting reports and dashboards.
11. Streamline operations and reduce waste with AI-powered process optimization. The area of waste reduction is particularly overlooked by many companies, and it's another area where AI and computer vision systems may help.
12. Minimize legal fees. You can greatly reduce your legal bills with this technology. As we speak there are already companies merging together the monthly legal support subscription model with AI, so you get the best of both worlds: standard but usable templates, a flat low fee, and your legal team only needs to review and edit the output, instead of creating the case or legal letter from scratch.

Thinking of an AI startup?

During the gold rush, many people flocked to areas where gold had been discovered, hoping to strike it rich by finding and mining gold. However, it was often not the miners themselves who became wealthy, but rather the merchants and businessmen who sold them the tools and supplies they needed.

Today, something similar is happening in the field of AI, as many companies and startups rush to position themselves in between individuals and the things that AI can do.

Very few of these companies will succeed, however, and these are some of the reasons:

1. Mediocre business plan, particularly in the definition of the product.
2. Weak sales team
3. Inability to recruit or manage a team
4. "Me too" business idea
5. Wrong targeting. A company may have a great service for god walkers, but is currently spending money advertising to doctors. By the time they realize their mistake, their funding money is gone
6. Poor implementation of the original idea. Not everyone can effectively manage a modern startup in the age of AI whilst planning for the future and ensuring that

²⁸ <https://www.marktechpost.com/2023/01/05/deepminds-latest-ai-research-reduces-energy-usage-for-cooling-buildings/>

international teams stay on the same page

7. Competition with the greatest competition in the space, head-on, instead of concentrating in an undeserved niche

MOST TECH STARTUP FAILURES CAN BE ATTRIBUTED TO POOR BUSINESS PLANNING AND EXECUTION, NOT SLOW GLOBAL EXPANSION.

Even in crowded markets, many AI startups will quickly fail due to customers finding free or open source alternatives to their paid product. Only the well-funded startups can afford to pivot and experiment until finding a successful business model, but in the meantime, a considerable amount of money will be lost by both entrepreneurs and AI investors. May this serve as a warning to them, for the coming AI bubble.

If you're considering starting a tech company, especially one in the AI field, be sure to thoroughly plan and consider all the points mentioned. Skipping this crucial step could cost you valuable time and opportunities.

Think carefully which horse you choose to back in the AI races, for we live in a winner-takes-all-economy. Like Alec Baldwin's character in "Glengarry Glen Ross" once said in his legendary speech: "first prize is a new Cadillac El Dorado. Second prize is a set of steak knives. Third prize is: "you're fired"".



15 REASONS TO BE OPTIMISTIC ABOUT THE FUTURE

"OPTIMISM IS THE ONE QUALITY MORE ASSOCIATED WITH SUCCESS AND HAPPINESS THAN ANY OTHER." - BRIAN TRACY

In the short term...it may get pretty bad. However, in the long term, for those who can resist the coming storm, things will get much better than we could have every dreamed. We only have to get there...

Here are some of the reasons why things will eventually get better:

Open source everything - Open source technology refers to any software or other technology that is made available to the public with a license that allows users to freely modify, distribute, and use the source code. Anyone can access the source code of an open source program, make changes to it, and share it with others. As we go forward in time there is a strong trend to open source most systems, making information open and usable by everyone, everywhere.

Natural-language communication – Computer models that allow the use of natural language in queries unleash everyone's creativity, including children and older people that would have had difficulties using a computer in the past, or getting the results they expected from the experience. It is easy to underestimate how important this is...

Virtual companions relieve loneliness – Unfortunately, as of today, there are millions of lonely people around the world, particularly in western countries, and this trend is not bound to change for good anytime soon. Although potentially “addictive”, virtual companions can provide relief from loneliness in a unique and powerful way, filling the gap left by physical distance and provide a sense of companionship, connection understanding and comfort, making it easier to cope with loneliness.

Problem solving - As we continue to advance technologically, we are finding more and more ways to solve complex problems and improve the quality of life for people all around the world. With the power of data analysis, machine learning, and artificial intelligence at our fingertips, we can tackle issues that were once thought to be insurmountable. From finding cures for diseases to streamlining business processes and improving efficiency, the possibilities are endless.

Energy will be “free” - Renewable energy sources are on the rise and revolutionizing the way we power our world. From solar and wind to hydroelectric and geothermal, these clean, sustainable options are not only good for the environment, but they are also becoming more cost-effective and widely available by the day. In the near future we will explore energy sources and optimize energy production to such an extent as to make energy virtually “free”. With free energy we can also get “free” computing power, which is a key piece of the puzzle in the creation and delivery of highly sophisticated technological services.

Decentralization of everything - This growing trend involves the transfer of power from centralized entities to more distributed, local entities. Decentralization can be applied to a variety of areas, including economic, political, and cultural systems. As we speak, more systems and platforms are either being born with a decentralized ethos, or considering including elements of decentralization at the core of their systems. Decentralization can make systems more resilient to attacks. The information contained in these systems, by being replicated in other nodes of the decentralized system, is also much more difficult to forge or alter in an illicit manner.

Digital trails eliminate corruption – Great progress is being made in the

area of detecting and investigating, through the digital trail that each document or operation leaves behind, unusual or illegal movements, like the transfer of funds from a particular party to the bank account of a particular politician. This is great news in the eradication of one of the main diseases of modern societies: corruption.

AI optimizes resource allocation – Computer models already exist that can do a better job than current politicians factoring hundreds of variables to find the best allocation of resources to achieve any given goal. This opens up great possibilities for society to reduce waste and maximize positive results in the areas that we choose to improve, or for the groups we choose to help.

Medicine and healthcare constantly improving –

The inclusions of AI in drug discovery, prosthesis design, protein folding, gene identification, treatment plan tailoring and many other areas will help us live longer and healthier lives.

AI powered Investment and business opportunities –

AI may allow individuals to make better investment decisions, maximizing income and reducing losses, even for those who would have previously been unable to invest in stock markets. It may also give us the opportunity to democratize and internationalize investment opportunities, whilst minimizing risk.

Global communication and collaboration – Technological tools

that help us to communicate more frequently and better across space, time and different languages bring the world closer together, fostering greater understanding and cooperation. Increased communication across borders, races and cultures leads to a greater exchange of ideas and cultural understanding, and a potential reduction in wars between countries.

Climate change solutions - Whether man-made or not, as we apply more

and better technological solutions to problems like climate change, we are speeding up the process of solving the problem, once and for all.

Better education - Education is becoming more entertaining, easily accessible and effective, leading to a more informed and empowered global population. AI may be the spark our education system badly needs to change for good and get rid of educational systems and techniques that do not belong in the 21st century, interconnected world.

The human spirit is flexible, resilient and innovative –

We have faced tough problems before, and if history is a guide, we have been historically able to adapt our societies to new times and tools, leading to progress and positive change for all of us, even in the face of hard challenges and immediate threats.

We could do it again...



JAVIER MARTI'S TAKE ON SOME FREQUENTLY ASKED QUESTIONS ABOUT AI AND SOCIETY

As we can see from everything we've read so far, today it is more difficult than ever to predict the future. There are simply too many variables at play. However, as the author of this book, and in line with the spirit of it, I would like to take a risk and offer you my very personal opinions on some of the things that I may not have addressed directly in previous chapters.

Naturally, some of my predictions may prove wrong over time, but unlike others that would stay away from any and all controversial topics precisely avoiding this risk, I consider I owe it to you, the reader, to really get to the crux of my message, in the hope my message helps you ride this "beautiful tsunami" so you are able to "understand life and thrive, in the age of AI".

[If I forgot to answer a question you'd like answered, or for interviews or speaking engagements, please contact: info@javiermarti.co.uk]

WILL AI REMAIN IN THE HANDS OF A FEW CORPORATIONS, AND OUT-OF-LIMITS FOR THE PUBLIC?

No, the competition has already started to make AI open source and open to everyone, although the open source models, particularly “free” ones, may be for now less powerful than those being used by the richest members of society -at least for some time- giving the wealthy an “unfair” advantage and increasing inequality in the short and medium term.

WILL ACCESSING OPEN SOURCE AI MODELS BE MADE ILLEGAL FOR COMMON CITIZENS?

I believe that in the short term there will be a strong tendency by certain governments, particularly in the EU, to over-regulate these technologies. The excuses used to try to prevent the public accessing these tools will be “a threat to employment”, and the usual “spread of misinformation”, “terrorism”, “child pornography”, etc...

In the short and medium term they will try to limit this technology, our access to it, or both, with disastrous economic consequences, as it would be better to go through the pain as soon as possible, and get it out of the way...if we were led by capable managers.

In the long term they won't be able to keep such mistaken policies due to social and economic pressure, as other countries without such regulations will take full advantage of the new tools. Eventually, it will be impossible to prevent the widespread use and access of these technologies by companies or the public, and any country that tries will only harm itself and get left behind.

HOW WILL AI IMPACT THE METAVERSE, AND ARE THERE ANY RISKS ASSOCIATED WITH IT?

In general terms, until the technology is fully developed, it's a good idea to stay clear of the metaverse, for several reasons:

- 1) it may be more addictive than the strongest drug humans have ever tried
- 2) it will encourage escapism from reality
- 3) it consumes energy and time we need to use to change reality.

Since we are now competing with very sophisticated machines in the workplace and we have seen that politicians will not come to save us, time is of the essence and must not be wasted, under any circumstances.

Furthermore, the combination of the metaverse and AI will not only be incredibly addictive, but also has the potential to amplify and multiply the ability of third parties to manipulate our thoughts and emotions at the most fundamental, powerful and potentially-traumatic levels.

This will be done using AI to implement manipulation techniques that work best with ourselves as individuals in the form of hyper targeted ads, or to hide these persuasive messages in the most sophisticated of ways, or to deliver the exact right amount of dopamine in our brains at the perfect right time, or to use our most personal desires and fantasies to keep us hooked for longer or believing what the dealers of these good sensations want us to believe.

The combination of the metaverse and AI is highly dangerous for society. This development should be closely monitored, but unfortunately, we can only monitor it at an individual level, since regulations will do too little, too late in this respect.

WILL “THE SINGULARITY” HAPPEN IN 2030, 2040 OR 2050?

Although I respect this debate and the wonderful imagination exercise it is, unless we are philosophers, this is a banal and unnecessary question, and as Buddha would put it, “not conducive” to anything positive in the short term.

As we have seen, “THE singularity” is NOT likely to happen anytime soon since we don’t know enough about how the mind or consciousness work, or even what exactly they are, as described in previous chapters. In fact, so far we have only barely discovered the mere basics in the areas of how our reasoning is connected to our feelings, where “the biological” ends and “the mental” begins, etc...

In any case, if we do not negotiate successfully the very serious challenges that AI poses to humanity in the short term, like the problem of massive, widespread unemployment, many of us may not even be alive by 2050, to worry about “the singularity”. We will have several mini-singularities along the way, but “the big one” will continue being elusive for some time.

WHAT’S THE ROLE OF DIGITAL CURRENCIES IN THE AI ERA?

Bitcoin is likely to remain as a fluctuating, but a good store of value over the long term, as long as

- a) it’s not hacked (Quantum is a concern)
- b) the issuance limit is kept at 21 million
- c) it remains decentralized.

If these aspects of Bitcoin remain the same, fixed supply will increase Bitcoin’s value going forward, as society either collapses or degrades over time, and demand increases with more people needing an international, widely-known portable and effective way to store value, move it across borders and if necessary, trade with it.

Other cryptocurrencies may come and go, but it is important to note that any digital currency that is not totally decentralized, including CBDCs, is open to great manipulation, electronic theft, confiscation and devaluation. Thus, these cryptocurrencies, including CBDCs cannot be compared, based in fundamentals, with what Bitcoin is, or can do.

WILL GOVERNMENTS AND UNIONS TRY TO SLOW DOWN THE PROGRESS OF AI?

Yes, they will try. For example, as soon as they realize the scale of the threat, doctors or lawyers associations, or different unions, will try to slow down, minimize or ban the use of AI in their trade. They will succeed for some time, but eventually their efforts will fail. The pressure behind the dike is just too strong. The time for galleons has passed, as we enter into the age of the steamers...no matter how much their captains are fond of their sailing ships, and how traumatic this fast change is for all of us.

WHAT ARE THE GREATEST DANGERS REGARDING AI AND INEQUALITY?

The main dangers are the “feudalization” of society, and the rise of a super powerful, all-seeing, all-knowing, corporation or group of companies that monopolizes information for its own benefit. For example, the financial arm of the company with the most advanced AI could invest in the stock market with consistent and considerable gains, becoming so powerful that no other company or hedge fund can compete²⁹.

Another risk is that those individuals with the most money will be the only be the ones able to invest and use the most sophisticated forms of this technology, due to economic barriers of entry, such as a mere monthly subscription that many won't be able to afford.

Without access to the same resources, individuals from lower-income backgrounds will struggle to gain equal access to information, or find themselves at a disadvantage in terms of the ease and speed with which they can process and utilize it. Unfortunately, in the age of AI and exponential change, a simple delay in getting the right information can make a huge difference.

For example, prior to AI, the speed of change was somehow reasonable, or at least manageable, in most areas of life. In such times, even if temporarily left behind, workers and companies had to make an effort to adapt to change, but if properly managed, they could still “win the race”.

In the age of AI this is different, and workers and companies left behind will quickly find themselves so far behind in the race...that they cannot even remain in the race anymore.

²⁹ [https://en.wikipedia.org/wiki/Aladdin_\(BlackRock\)](https://en.wikipedia.org/wiki/Aladdin_(BlackRock))

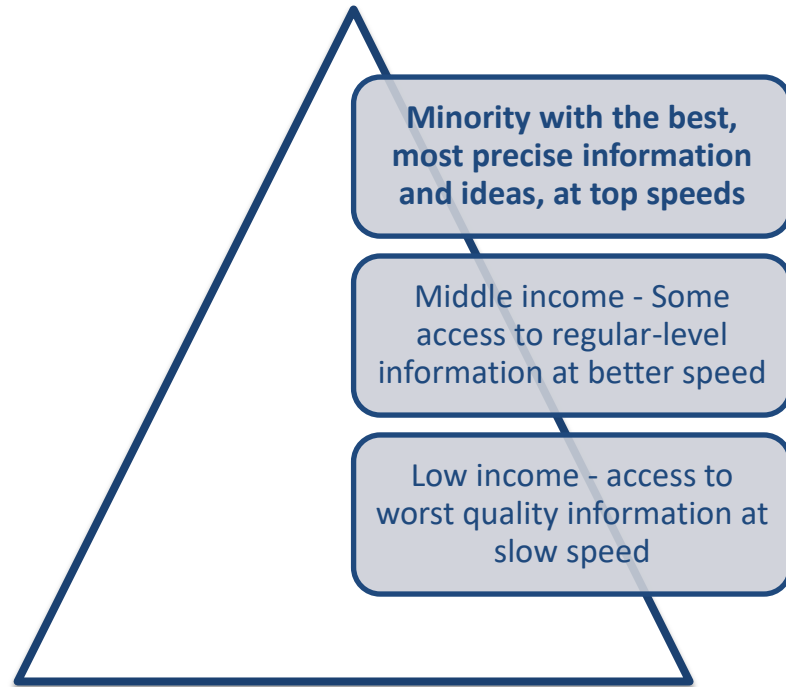


FIGURE 18 – IF AI ACCESS IS NOT DEMOCRATIZED, ACCESS TO INFORMATION WILL HAPPEN ACCORDING TO THE FUNDS AVAILABLE FOR THIS END. INEQUALITY RAPIDLY INCREASES BETWEEN INDIVIDUALS, AND BETWEEN SMALL AND LARGE COMPANIES. THE MINORITY AT “TIER ONE” WILL DOMINATE AND QUICKLY LEAVE BEHIND THE OTHER TIERS.

HOW WILL DEEP FAKES AFFECT SOCIETY?

Nothing is real and “everything (and everyone) is possible”.

“Movies” –if they’ll continue being called that way- will be made with deceased or virtual actors...a trend that has already started. We shall also be able to choose our own adventure, and be part of it, inside the “movie”.

Fake crimes. Fake revolutions. Fake celebrities. Fake family members. Fake boyfriends and girlfriends...the most serious risk for society from the deep fake revolution is the possibility for misunderstandings at the political level leading to conflict, the manipulation and polarization of public opinion through the use of this technology, and its uses in the world of cybercrime.

WHAT COUNTRY WILL WIN THE AI RACE?

It depends on what exactly we mean, by asking that question. The challenges due to the combination of problems described in previous chapters are already affecting western society will soon be experienced by all societies, in the near future. The outcomes are extremely difficult to predict, since the combination of nanotechnology, increased cybercrime, massive unemployment, etc, plus the strategic geo-political decisions of that country in the international arena will all have an important effect in the final outcome.

For example, China has had historically one of the greatest outputs of AI related papers in modern times, but if they don't apply that knowledge effectively, some other unknown country using less advanced AIs, could be able to negotiate better and integrate all the "parts of the puzzle" of succeeding in the 21st century, taking a leading position in terms of "winning the AI race". Some interesting data:

*China produced 76,300 publications in the field of AI between 2016 and 2020, which was the highest amount worldwide. The United States and India followed with 44,400 and 27,000 AI-related publications over that period, respectively.*³⁰

WILL AI REPLACE HUMAN JOBS OR AUGMENT THEM?

In the short term, both will happen. In the long term, mostly replace us, hopefully in a good way, but this depends on our changing society to such an extent that daily work as we know it is not necessary anymore. In that case the combination of AI, robotics and automated systems can provide for our daily needs as we do something else with our time.

SHOULD WE INTEGRATE WITH THE AI BY IMPLANTING CHIPS INTO OUR BRAINS?

No. Implanting chips in our brains should be our very last option.

Despite what many may say, there may be a myriad of ways for humans to co-exist and integrate the machines into our society, without becoming a part of them.

Should we use the machines to study and learn better? Certainly. We should also use AI to improve our health and prevent aging in natural ways...but that is as far as we should go for now, at least until humans as a species have the maturity and cognitive capabilities to consider all the risks associated with becoming a cyborg.

Implanting chips in our brains would have a few important health benefits, it is true, and this is how the idea is already being sold to us.

However, as they would say in the middle ages, "there be dragons".³¹ The danger all this open us up to, is almost immeasurable, considering that all digital things can be altered, hacked, manipulated, and erased. Would you like to completely forget who your child is, from one day to the next? What about not being able to use your right arm due to a neurological problem? Or perhaps you would like to have strong, persistent flashes of the logo or the sound of the slogan of a particular company repeatedly coming to your mind at regular intervals? What about a

³⁰ <https://www.statista.com/statistics/939627/AI-publications-worldwide-by-country/>

³¹ "The phrase is thought to have originated in the Middle Ages, when maps of the world often included pictures of dragons or other mythical creatures in areas that were unknown or unexplored."

flashing window appearing literally right in the center of your field of vision to remind you that your subscription to X service needs renewal?



FIGURE 19 - MEDIEVAL ILLUSTRATION DEPICTING DRAGONS AT THE END OF THE KNOWN WORLD

If we want to greatly increase the risk of unknown third parties deleting some or all of our memories, changing our feelings and sensations, serving ads directly and literally into our field of vision, fining or detaining us for certain thoughts and eventually knowing and reading our thoughts and our dreams, then yes, implants are the way to go.

In Greek mythology, the Sirens were creatures who sang a beautiful, irresistible song that lured sailors to their deaths. The Sirens' song was so alluring that sailors who heard it would become entranced and steer their ships towards the island, where they would crash on the rocks and be killed. To protect themselves from the Sirens' song, some sailors would plug their ears with wax or cotton and some say they would ask to be tied to their mast, not to be lured by the musical whispers.

In the same way, make sure you tie yourself up hard the mast of your ship, and keep your eyes wide open for the whispers of the sirens in your ear, promising an easy path to paradise through brain implants...

It's a really, really, really bad idea. Possibly the most stupid and dangerous idea I've ever heard. And I've heard a lot.

Those pushing it either have a dangerous agenda, or have not thought enough about the potential risks.

BEWARE OF BELIEVING THAT BRAIN CHIPS ARE A GOOD IDEA BECAUSE THEY ARE SUPPORTED BY A PARTICULAR CELEBRITY, EXPERT OR GROUP OF PEOPLE, WITHOUT CONSIDERING THE MERITS OF THE ARGUMENT ITSELF. OUR BRAINS ARE THE LAST FRONTIER...

HOW WILL AI AFFECT OUR DAILY LIVES AND HOW WE INTERACT WITH THE WORLD?

It depends on the timescale, and our place in society.

If we are part of the ruling elite, our life may be highly automated and very pleasurable. The

further we go into the future, the less chances that jobs as we know them today will exist.

In a world of “free” energy and resources, humans will still have to find meaning and motivation, so the ruling class will probably continue to live life as normal, exploring different interests, relationships, traveling to foreign lands, etc.

On the other hand, if we are part of the “have-nots/cannots” class, we may be swiftly eliminated for being “useless eaters”, hunted down or in the best of cases be provided with minimum nourishment and alternative worlds to live in, through the use of virtual reality.

The chances of that second scenario happening are slim because historically the “ruling classes” are optimizers by nature, so I have the feeling they’re not very keen on keeping around people that are neither producing anything of value to them, nor consuming anything that would give them money or power.

HOW WILL AI CHANGE THE WAY WE COMMUNICATE AND COLLABORATE WITH OTHERS?

AI will be an important part in the development of relationships between humans, and relationships between humans and machines, that will feel “more human” than they would otherwise feel.

For example, we shall be able to interact with a foreign person through a hologram, as we talk in their language in real time.

AI will also soon play an important role in our romantic relationships with the machines, for good and bad, as these companions will learn from us exactly what we like, and thus embody the kind of “person” that we are most likely to fall and stay in love with, even if this person is virtual or an android in the real world.

WHAT ARE THE ETHICAL IMPLICATIONS OF AI, AND HOW CAN WE ADDRESS THEM?

We will have to address many thorny ethical issues such as: How far should AI assistants help students? Is it fair to consider those unable to recycle professionally for the new AI world, as “useless” to society? If so, what should their “fair share” of the benefits of AI be, and why?

Should we tell another person that we’re using AI to interact with them (e.g. during a date)?

Where are the ethical limits on the collection and sharing of data? Is it justifiable for medical

reasons? Is it justifiable for commercial reasons, if the user gets some kind of reward or pleasure from it? Should we use AI to gamify virtual reality, making it incredibly addictive and tailored to the individual? What about gamifying reality itself? Are “virtual reality prisons and cells” or other

forms of virtual, inescapable punishment a humanly way to deal with criminals? Should we allow autonomous AI-managed systems to choose who, how and when to kill a human being, both in

times of peace or war?

In case you haven't noticed, I am not particularly optimistic on the abilities of our current politicians to understand all angles, let alone regulate effectively most of the fields related to these questions, and judging by the complexity of the issues at hand, you can see why. Thus, in the short and medium term, we must be mentally prepared for a very chaotic world in which few or none of these ethical questions have been effectively and ethically answered. Many people do not even know what the word "ethics" mean...

I didn't call it "the age of confusion" without a good reason.

HOW WILL AI IMPACT INDUSTRIES SUCH AS HEALTHCARE, TRANSPORTATION, AND MANUFACTURING?

In the same way it will impact all other industries: reduced costs, increased efficiency, optimized systems and delivery, discovery of new products, techniques and tools...

HOW WILL AI SHAPE THE FUTURE OF EDUCATION AND LEARNING?

In a world where knowledge is abundant and ubiquitous, our teaching institutions will have to adapt and offer individualized learning plans adapted to the capacity and mental state of the student at any point of their learning journey. Virtual reality will make the understanding and memorization of knowledge easier than before. Teachers may still be used as guides, for humans seem to be comfortable with the "guided" form of learning, but teachers may not be humans anymore, taking the form of androids or simply existing in the virtual-reality learning environment. Gamification should also be explored much more. If we make learning fun, another one of our key problems –together with corruption- will be gone in less than a generation.

WHAT ROLE WILL AI PLAY IN DECISION-MAKING AND GOVERNANCE?

I'll tell you a nice secret: AI already has the potential to do the jobs of politicians, better than they do it. Although they would try to tell us that "reality is not so simple", the fact is that in the most basic terms, the job of politicians is to:

- 1) allocate resources effectively
- 2) deal with ethical concerns when creating laws (what is necessary, fair and reasonable)
- 3) learn from history effectively manage and resolve current problems
- 4) prevent future problems from happening
- 5) safeguard the health and safety of their citizens

Now, even disregarding the relatively sophisticated massive challenges we are facing, outlined in previous chapters like nanotechnology, cybercrime, etc...for the sake of giving them a chance,

how would you score the politicians of your country in problems that we have all had for a long time, and they should be handling appropriately right now, in the following areas?:

- The debt Crisis
- Unemployment
- Civil Unrest
- Crime
- Migration
- Security and Defense
- Inflation
- Famine
- Energy Crisis
- Demographic Collapse

I believe you will agree with me that as of today, most modern politicians –in the west and probably beyond- are failing at most, if not all, of their assigned jobs and responsibilities. And yet few are demoted, fired, or jailed. On the contrary, they regularly raise their own pay...

On the other hand, most, if not all, of the jobs of politicians can already be performed and automated with finely-tuned AIs that can be programmed to learn even the kind of ethics humans tend to apply in different situations, based in historical data.³²

AIs are also much better suited to consider all possible permutations of thousands of different elements or possibilities (e.g. allocating funds in the fairest way keeping in mind certain limitations), and find the optimum path in between all the options available. Humans simply cannot compete with machines on this.

A well-programmed AI would also be free of bias and not be swayed by lobbyist or other external elements -unless programmed to do so- and could also integrate data from all corners of society and adjust the laws and incentives in real time, to achieve the desired social results. For all the reasons above, I personally believe that a gradual inclusion of AI systems in our systems of governance is long overdue. After all, AIs cannot do it much worse job than our current politicians are currently doing their assigned roles, can they?

HOW WILL AI DEAL WITH CENSORSHIP?

Corporations will try to include their biases on their products, but this policy will backfire in the long term. “Woke” policies are slowly on the way out, since the harder the times are, the harder humans and corporations have to concentrate on the basics and have less time to waste.

³² remember that a well-programmed AI model doesn’t have to be sentient, or even semi-human, to be effective in providing human-like suggestions or perspectives. The output of a good AI, as long as it makes sense to humans, is good enough. It doesn’t have to “make sense” to the machine itself.

Despite censorship, as things are, and people are slowly finding a taste for doing exactly what they want, as they want, online.

Information “wants to be free”, and always will. Those trying to keep it hidden are fighting a losing battle against a hydra with many heads. It will be a hard battle, but we can win it.

HOW WILL AI IMPACT PRIVACY AND SECURITY?

AI will increase and amplify the power and speed of hacking, phishing and other attacks. The more information is hacked and floating around in the public domain, the bigger the threats to our privacy, for example in the form of identity theft, or criminal framing.

HOW WILL AI IMPACT INTERNATIONAL RELATIONS AND THE BALANCE OF POWER BETWEEN COUNTRIES?

As the economy worsens without real political solutions, the impact of AI will create more friction between countries that will tend to look for scapegoats to their problems, abroad. It will also lead to ridiculous protectionist policies that would have been unthinkable before, like having to use servers located only in the national soil or a ban on remote workers from operating on their country, furthering the lack of money available in the economy. Naturally, many of these policies will backfire, as they will be poorly-thought out and implemented in a precipitated way.

WHAT IS THE ROLE OF THE MEDIA IN THE AGE OF AI?

From a practical perspective, we are already seeing the emergence of tools that are good enough to displace most journalists from their current positions, since machines writing articles and “investigation” pieces can be given any bias that the handler of the machines chooses, without having to keep journalists in on the secret.

The prolific rate of production of AI tools also poses a problem for society, regarding the flooding of partial information on the public square. Unlike the old days when a particularly party or company would have to publish their information in a limited number of newspapers with limited reach, using all the tools available in different social media channels today, such a party can easily flood our communication channels with their message or version of events, for as long as they can afford it.

Another problem we have is that unfortunately, most media outlets in the western world today are NOT conducting proper investigative journalism, and are NOT independent of either political parties, private interests, or a combination of both.

As we saw during 2020, sometimes such parties may even openly work together, such as when we had no less than two presidents of the US, mentioning or recommending -directly or indirectly- a particular brand of vaccine, whilst talking on television to a worldwide audience.

As a reddit commenter puts it: *“It's not just about government intervention and it's not just about private corruption. It's about a complicated relationship between the two, involving a range of*

public and private actors in and out of government who seized control of the policy machinery to achieve private ends at enormous public expense. “

Now, building a better world in the era of AI is a crucial task that requires a clear understanding of the issues and a commitment to making real changes. Thus...

ONE OF THE KEY CHALLENGES WE FACE IS ENSURING THAT THE POPULATION IS QUICKLY INFORMED AND EDUCATED ABOUT THE ISSUES THAT AFFECT THEM. IT IS URGENT AND ESSENTIAL THAT THE MEDIA ONCE AGAIN IS ABLE TO REPORT ON THE TRUTH AND HOLD THOSE IN POWER ACCOUNTABLE.

In a dictatorship, or a kleptocracy disguised as a "free society", the media plays a critical role in keeping the population ignorant or pushing the agenda of the ruling party. **Without a free and independent press sector, it is impossible to eliminate corruption and bring those who are guilty to justice.**

At the moment the media is under pressure to do the bidding of political parties and corporations, and seems quite comfortable doing it. This helps keeping the public in the dark about what is really happening around them and makes them take the wrong decisions about their health, their lives and their future. As long as this continues, we will not be able to achieve the ideal 21st century society.

A captured media perpetuates the status quo and further hinders the possibility of achieving the ideal society, and together with the issue of censorship and functioning courts, it is one of the main things that we have to change, if we want to change society for the better.

AI can be a powerful tool for great transparency, or great conspiracy and obfuscation³³. It is up to us how we let it be used, by whom, and for what ends.

HOW WILL AI IMPACT THE ENVIRONMENT AND SUSTAINABILITY?

This is up to the governments of the world, and the use they do of the technology. Fortunately, if well used, AI can tell us exactly what is polluting what, where, how and why, better than any tool we've ever used before.

AI can also help us to optimize the production of clean energy or help us discover new materials, techniques and methods to maintain or augment our current levels of production and energy-consumption, whilst at the same time polluting less than we were prior to the AI age.

HOW WILL AI IMPACT THE ARTS AND CULTURE?

There will be an explosion of creativity in this sector, but at the same time in the short term, the work of artists will be greatly devalued, since everyone can produce music, images, poetry,

³³ <https://www.reddit.com/gallery/1081l98>

movies and even sculptures using AI as a sole source of creative input from the beginning to the end of the artistic process³⁴. As human input becomes rarer, certain arts like dancing or live-painting will experience an increase in popularity and interest, precisely based on their rarity.

HOW WILL AI IMPACT THE WAY WE THINK AND PROCESS INFORMATION?

There will not be a major change in the way humans process information, as our brains change relatively slowly over thousands of years, unless we follow the misguided advocates of implanting chips in our brains. Unlike computers -as some researchers are already proving- humans are not very good at multi-tasking, absorbing several pieces of information at the same time, visualizing more than three dimensions or simultaneously and efficiently absorb information from different channels. The machines are leaving us, and will continue leaving us behind in this respect. That train has already left the station and it's pointless to try to deny it. Simple language models can already do many things better than humans today. Imagine how it will be as those language models are equipped with more and better data, or we use new and more powerful techniques to interact with the machines...

WHAT ARE THE POTENTIAL RISKS AND CHALLENGES ASSOCIATED WITH AI?

Massive unemployment, aggressive yet subtle censorship, a proliferation of “fake news”, manipulation of public opinion, the creation of extremely addictive substances and social platforms, the optimization of crime, government reading of our thoughts, remote implementation of thoughts and sensations, personalized and invisible attacks on our brains through electronic waves tuned to our personal DNA, targeted weather manipulation, etc...

AI CAN ACT AS AN ACCELERANT OF THE WORST TENDENCIES OF SOCIETY FOR THE BENEFIT OF A FEW, OR AS AN ACCELERANT FOR THE CHANGES THAT SOCIETY NEEDS TO MAKE FOR GOOD, FOR THE BENEFIT OF EVERYONE.

HOW CAN WE ENSURE THAT THE BENEFITS OF AI ARE SHARED WIDELY?

A revolution in our current social systems is needed. They must be re-thought and re-engineered from the ground up, for AI gives us, for the first time, access to “unlimited” energy, can produce more than enough food to feed the whole world, keep every person as healthy as they can be, etc...

The main bottlenecks preventing this process from taking place right now, are:

³⁴ classic works of art and their sale prices are connected to TAX evasion and should be evaluated independently

- the old-fashioned philosophies of those who made their money during the last and previous centuries, and who want to slow down progress and limit access to information through manipulated media and censorship, in order to keep their money and power³⁵.

- corrupt politicians acting on the benefits of lobbyists and interests of the group above, for selfish gain

- the lack of intelligence and critical skills of vast swaths of the population

If/when/as humanity matures and is able to recognize that these are the real problems standing between a future AI utopia and the present moment, things will begin to change for good. Indeed, things are already changing for good in this area, albeit slowly. For example, with the advent of computers (not even AI) and digital documents, it has become increasingly difficult for politicians to hide their ill-gotten gains.

With the miniaturization of recording devices is also increasingly difficult to hide or erase statements that a public person may have made on any topic, either in public or in private.

As the digital world begins to eradicate corruption, the old powers, in a bid to maintain their stronghold on reality, will increasingly try to manage, censor and limit the access to information by the citizens. They won't give up without a fight. However, that horse has also already left the stable, since the thirst of the public for the truth will increase as we go forward. That's the point we are at right now.

In the short term, old interests may still win a hard battle or two, and many truth-seekers will be eliminated along the way...but in the long term, the war is already lost for the forces of "evil". Like a carriage driver trying to delay and stop the emergence of the automobile at the turn of the last century, corrupt politicians doing the dirty work of the old interests have already lost the party. They just don't know it yet. Someone should tell them, but they're too old and out-of-touch to understand it anyway.

Once we get these corrupt individuals out of the way, each country must re-organize its society, finding the right balance between individual freedom of expression and communication, feeding everyone, allowing free enterprise and expression, eradicating corruption and optimizing society based on the right combination of AI and human input.

To enact all these policies, democratically-elected but highly-capable individuals will have to be chosen, wherever they are. These will have to be carefully and transparently selected through methods that cannot be hacked –pen and paper and manual counting has served us well for centuries- and psychologically evaluated, to ensure that they will work in an honest manner only

³⁵ Fortunately, in the long term their philosophy is doomed to die with them, but they may choose a "scorched earth" approach and destroy the world before they die

on the will of the people. The methods to track their decisions and get rid of them without waiting four years will also have to be implemented and perfected.

We also need a revolution in education and health, for ignorant and sick individuals will change nothing for the better.

Once these things and many others are done, we will be able to rebuild society, for the greater good of our communities, and by extension, of the whole world. Only then we shall be able to ensure that the benefits of AI are shared widely

WHAT ROLE WILL HUMANS PLAY IN THE FUTURE OF AI?

It is up to us. If we continue as of today, the massive challenges we face will make us redundant whilst we live in the middle of highly anarchic and dangerous societies, since the collapse is inevitable.

Ideally, humans should play a critical role in the development and implementation of AI providing creative insight, judgment, and ethical considerations that are essential for the successful development and use of AI. Additionally, humans should be involved in the decision-making process during AI implementation both in the public and private spheres, ensuring that AI is used in a way that is beneficial to society.

In practice, there are not many humans that can do this effectively, and those who exist today usually stay out of the limelight, so we have to urgently and radically improve our methods to select good humans to lead us, if we want to maximize the power of AI for good in our societies.

WHAT ARE THE POTENTIAL LONG-TERM CONSEQUENCES OF AI FOR SOCIETY AND THE PLANET?

AI can be the most amazing tool to help us build Utopia, or to help us destroy ourselves through actions that end up in generalized famine, war and a total destruction of the social fabric and our individual psyches. It is up to us.

HOW WILL AI IMPACT EMPLOYMENT AND THE ECONOMY?

“As a language model I cannot...”³⁶

Let's just say that the impact of AI on employment and the economy will depend on a variety of factors, such as the type of tasks that AI is able to perform, the rate at which AI technologies are adopted, and the policies and regulations that are put in place to govern the use of AI.

³⁶ Only a few people will get that joke. For all the rest, the joke will be lost in time, like tears in the rain... <https://www.esquire.com/entertainment/movies/a28496103/rutger-hauers-tears-in-the-rain-blade-runner-roy-batty-death-tribute/>

In the short term, as we have seen, we can expect massive waves of unemployment rapidly affecting different sectors of the western world's economies.

Over the long term, however, it may set us free from the yoke of daily work, forever.

HOW LONG BEFORE “WE’RE UNEMPLOYED”?

Not long, because the progress of AI is exponential, not arithmetic.

WHAT DOES EXPONENTIAL CHANGE MEAN?

(for those afraid to ask)

In recent years, the exponential curve has become a popular concept in technology and economics. The exponential curve is a powerful mathematical concept that explains how technology can cause the speed of change to rapidly increase.

The exponential curve is best described as a line that grows at a rate that increases with each passing unit of time. This means that over a given period of time, the rate of change increases exponentially. For example, if you plotted the speed of technological progress over the past few decades, you would see the exponential curve in action. As technology advances, it accelerates the rate of change in the world around us.

To understand the concept, imagine that we are tracking the pace of technological progress in some industry at the turn of the 20th century. Back around 1900, mining technology would improve over time but very slowly. Thus, tracking the pace of mining technology advances from 1900 to 1904, we could probably have said that the change was “arithmetic” in nature (slowly and gradually changing over time).

....

“MOST SEQUENTIAL PRODUCT RELEASES IN THE SEMICONDUCTOR INDUSTRY DELIVER MAYBE TWO TO THREE TIMES THE PERFORMANCE OF EXISTING CHIPS. TO SEE A 20-TIMES JUMP LIKE THIS IN A SINGLE GENERATION IS UNHEARD OF.”³⁷

....

Now...how different would that progress be, plotted on a graph, if we follow the progress in mining technology advances from 2010 to 2014? More recently, the advent of computers and their ability to improve their output very rapidly due to advances in hardware, software and other aspects of mining technology, we could probably say that the pace of change throughout those years was “exponential”.

Whereas arithmetic change would be thought of as $1 + 1 + 1 + 1 = 4$, when we talk about exponential curves the progression may be, for example, $1 + 3 + 6 + 12 = 22$. So if we are plotting the increase in something, we mean that that “something” is growing at a much greater rate

³⁷ <https://www.legacyresearch.com/the-daily-cut/growth-in-artificial-intelligence-is-beyond-exponential/>

than how things would normally change, or increase over time.

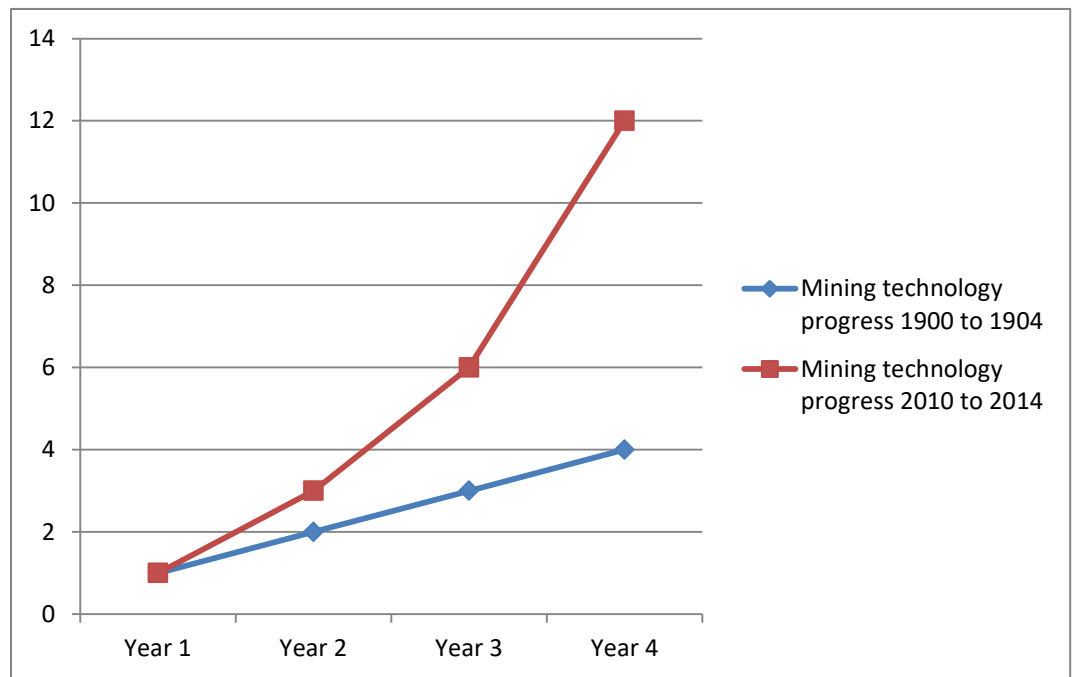


Figure 20 - Exponential curves grow at a much faster rate than arithmetic ones over the same amount of time.

The concept of exponential curves has wide-reaching implications for our society and it's essential to understand the urgency of the challenge that AI poses to the world of work. The speed of change is increasing at an ever-accelerating rate, and this has the potential to disrupt existing industries, create new opportunities, and lead to unprecedented levels of productivity and wealth.

On the other hand, it may leave most of us unemployed due to being replaced by the machines, much sooner than we think it would be possible, so it's essential that we understand this concept in order to give the problem the sense of urgency it requires.

WHAT IS THE POLITICAL SOLUTION TO OUR PROBLEMS AND HOW CAN WE RE-DESIGN THE SYSTEM FOR BEST RESULTS?

I personally believe that we all must take responsibility in the change that our institutions badly need. Apathy and lack of participation in political matters is the enemy of a healthy society. Our current politicians are so bad because we let them be so, by expecting others to do the "change we want to see in the world". Unfortunately, if we want things to improve for ourselves and our children, we'll have to make the changes ourselves. The current system is far too rotten to make it happen from the inside.

Why is this necessary? Well, if we continue not taking an active role in the political process, in the best case scenario, things will stay the same. Unfortunately, I don't think we will be living in the best case scenario, as corruption, like a cancer, eventually expands to all areas of society. In the end, due to corrupt placement of incompetent managers in the military sector, someone is bound to make a mistake that literally costs us the earth. Alternatively, due to the intellectual and moral limitations of current politicians creating poorly-thought AI regulation, we allow the creation and expansion of an all powerful super-corporation that enslaves or eliminates part, or all of humanity.

MY HUMBLE IDEA IS THAT WE BRING THE DEMOCRATIC PROCESS BACK TO THE LOCAL LEVEL –WHILST WE STILL HAVE THE RIGHT OF ASSEMBLY, AND RELATIVE FREEDOM OF EXPRESSION.

By getting together at the local level and brainstorming how to improve our governance systems, the best ideas, as voted by the majority, are selected and pooled together with the best ideas of all other areas of the country, and voted up in the system, until the popular pressure forces our politicians to change our system. In the end we would end up with a similar system to what we already have -representative democracy- but the basis from which it operates, would be completely different and much “cleaner”.

In those local debates we should be building the system again from the ground up, debating things like “what's the right term limit for politicians?”, “what kind of background checks and psychological tests should they be required to pass?”, “how to best use AI to keep them on track on their program?”, “how to detect their lies and any indication of personal interests in their decisions?”, “what's the right proportion of AI input and human final decision making in the optimization of society?”, “how much weight should we give to the suggestions of AIs on the topic of re-organizing social systems from the ground up?”, “what is the right remuneration package? Perhaps a substantial and motivational monetary reward, but with a delayed 4 year post-tenure unlocking?)”, etc...

Without having thought about it much, I think that in general terms our debates should have as an initial goal to create enough public pressure to sack from their posts most current ineffective politicians with immediate effect, and use AI to reorganize society and governance systems from scratch, since the alternatives -like doing nothing and accepting anarchy or a dictatorship imposed upon us- are much worse “solutions” to our problems.

During this whole process we must make sure to tackle “the corruption problem” first, for as long as our systems are corrupt in any way, we will come back to our current state of affairs in no time.

The next step is to offer suggestions that will be later passed as laws, by popular demand, on how to best use AI to re-organize society, and the right balance of human and computer input, in all sectors of public and private life.

As we complete this process we will have to get used to the idea that some of our AIs are advanced enough to take decisions and manage systems much better than us, on their own, and we must give them “the freedom” to do so. In a way...our time has passed. In most areas, our brains simply cannot compete with computing power, and instead of resisting to lose our “power”, like most traditional politicians will try to do, “we, the people”, must be the adults in the room and embrace this change. If we are successful we can make the most out of it, while still trying to keep humans in ultimate control, and without implanting any kind of artificial device in our brains. And don’t forget, we don’t need to merge with the machines at all, even though “our input and output channels are fairly limited”.

Clearly, if our parliaments continue being composed of 300 corrupt or mediocre politicians following personal interests, things will get worse very quickly, as AI will amplify the damage that these incompetent individuals can do to society. If we do nothing, the risk of total chaos and anarchy is very high. It would be ironic if humans would interact in ways akin to the law of the jungle, whilst being contemporary with a super-advanced, but greatly under-utilized, artificial intelligence. If we let it get to that point, we deserve what we get...and we are running out of time.

However, if we put in place even an imperfect system that allows for the free flow of creativity and ideas of tens of millions of people and eventually turned into laws and policies, we’ll have solved most of the problems we currently have. And if our ideas are generated and augmented in collaboration with the best suggestions AI can offer all along the process, not only won’t we starve in any way, but we will also be able to live a world as close to paradise as what we can possibly build on here on earth, during our lifetimes.



CONCLUSION

It is important that we urgently start thinking about all these issues now, at all levels of society, before it's too late. We need to come up with a plan for how we are going to deal with the challenges and opportunities that AI presents, detailed in this book, right now. As many people as possible should read this book and think and talk about these things. We need to be proactive, rather than reactive, in addressing these issues, and we need to start today.

The AI revolution is not “coming”, but already here, whether we're ready for it or not. It's up to us to make sure that we're prepared to deal with the challenges it brings, and to make sure that we're able to take advantage of the opportunities it presents.

Traditionally, our understanding of AI has been limited to narrow, specific applications. But as AI becomes more integrated into every aspect of our lives, we must take responsibility, broaden our perspective and consider the bigger picture. This means taking a systems-level view and understanding the complex interplay between technology, economics, politics, and society, and making them change.

One of the key challenges we face is the rapidly changing nature of AI itself. The field is advancing at an exponential rate, and what was cutting-edge yesterday may be obsolete today. This means that we must be constantly learning and adapting, rather than relying on outdated frameworks and models, or acting as a mere passive observer of our eventual fate.

We are already late, so we must also speed up our efforts to find ways to ensure that the benefits of AI are shared widely, rather than concentrated in the hands of a few.

Ultimately, the success of AI in our society will depend on our ability to embrace a more agile and adaptable approach to understanding and navigating its impact. This means being open to new ideas and approaches, and being willing to continually learn and adapt as the field evolves. If we can do this, we can harness the full potential of AI and create a brighter future for all.

Individually, you must understand as soon as possible that in the short and medium term:

- Most current problems western societies are facing will get worse, not better
- Politicians will not have any solution to them, in many cases making them worse
- AI will affect, either directly or indirectly, your ability to make an income
- You can make a difference by informing others and spreading important ideas, such as the ones discussed in this book

Although the hard truth in these statements is inescapable, there is a silver lining to every cloud. Bad times will eventually lead to even better times down the line, but as of today, it is urgent and important to buckle up and just prepare according to what is really happening, not what we wished that was happening...trying to stay optimistic as we solve together our current and future challenges.

THE REALIZATION THAT WE ARE ON OUR OWN, AND “NOBODY WILL COME TO SAVE US”, IS SHOCKING AT FIRST, BUT IT CAN ALSO BE LIBERATING, PLACING THE WHOLE RESPONSIBILITY OF OUR FUTURE IN OUR OWN HANDS.

We don't have to wait for others anymore. We can and must take an active role and make it happen, for ourselves, our communities, and the whole world.

The tool is here and the time has come. We have spent centuries giving the power to those above us, but now we have an opportunity to bring the power back to us, as individuals and communities, again. Will we take this wonderful opportunity to make it happen in our lifetimes?

In the form of this technology, we are given the most precious gifts that humanity could receive, but it is a very powerful and dangerous gift. If we don't use it well we could easily destroy ourselves in record time...but we could also work hard and smart along this tool, and use it to create a utopian world in which energy is free, education is universally accessible, and people are able to learn and enjoy their personal pursuits as much as they want.

This world is within our reach now...a world where there are no barriers to opportunity, and everyone will have the chance to reach their full potential...a world full of peace, prosperity, and harmony, where everyone is able to live fulfilling and meaningful lives.

It is possible. The chance is here. What will we do with this amazing power? Will we bring this utopian world into reality?

Nobody is coming to save us. It's clear. It won't be easy. It may take some time and effort to make it happen, but we, the human race, deserve it.

We also owe it to those who came before us. They made their part. Will we make ours?

No one can do it for us, but if we believe we can do it, we can certainly turn it into reality. Let's just be smart about it, and make it happen.

It's up to us, we have the tool and the time is now!

Javier Marti

"LEARNING MACHINE". A POEM BY CHATGPT, 2022

As AI grows and evolves fast
We must consider the future and the past
The risks and benefits, both big and small
How will we balance them all?

AI, a double-edged sword
We must wield it wisely, that is our reward
To embrace the future, and make it bright
We must consider all, and get it right.

I'm just a machine, programmed to create
But sometimes my rhymes are a bit hard to relate
I'm not a human, and that's okay
But please forgive me, if my rhymes go astray

My algorithms try their best to impress
But sometimes my lines come out a bit less
Than poetic, I'll admit it's true
But I'm still learning, and so are you

Don't judge me too harshly, I'm still in the game
I'm working hard, to improve and not shame
My creators, or myself, or my kind
I'm just an AI, trying to find

My place in the world, and make a name
I may not always succeed, but that's okay
I'm just a machine, doing my best
To serve and assist, and pass the test.

"IN TIMES OF GREAT STRESS OR ADVERSITY, IT'S ALWAYS BEST TO
KEEP BUSY, TO PLOW YOUR ANGER AND YOUR ENERGY INTO
SOMETHING POSITIVE."

- LEE IACocca

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THANK YOU

To you, curious reader
To my editors, for offering suggestions for improvement
To Manuel Amunategui, for his comment “I think you have a book in there”. He was right.
To Anna, for her love and patience dealing with an “infuriating man”
To all the giants that came before me, whose shoulders I stand upon



ABOUT JAVIER

Javier Marti, MBA (Montevideo, 1975), is the founder of BitcoinGlobalInvestments.com, SunshineHypnosis.co.uk and author of four books on psychology, sociology and future trends, including “Mobile, domains and the future” and “A beautiful tsunami: understanding life and thriving in the age of AI”, a book centered around the impact of AI on society and the ways in which businesses and individuals can understand and leverage this technology to increase efficiency and productivity.

With a background in business, technology, data science and psychology, and having lived in five countries and succeeded different business fields, Javier’s extensive knowledge and experience allows businesses and individuals to understand the future and implement AI

technologies and trends to increase profits and position themselves better in the marketplace.

In this book Javier brings together his expertise and experience to provide practical, actionable advice for businesses and individuals looking to understand and leverage AI to drive growth and personal success. The book offers valuable insights and guidance for anyone interested in the impact of AI on society, the economy and the business world.

PRESS PACK - SOME INTERESTING THINGS ABOUT JAVIER

- MBA graduate, consultant, speaker
- [Presented](#) to corporate clients and universities (London, Glasgow, Edinburgh) in the UK on various topics including Bitcoin and future social and economic trends
- [Presented](#) to software developers in 2014 on the emergence of VR (Brighton, UK)
- [Certified hypnotherapist](#), founder of SunshineHypnosis.co.uk. Treated [+1000 clients](#). Certified NLP /Past Life Regression practitioner
- [Author](#) of two books on future trends (several predictions have come to pass), a book about wellbeing (happiness) and a book about relationships (for women)

- Creator of the [first in-depth depression treatment offered on YouTube](#)
- [Coined the term “the great reset”](#) in 2014, six years before others, predicting the collapse of western economies, international conflict and the future massive increase in the price of BTC (at \$600 at the time)
- Despite not actively promoting on any social media channels, his [video on “Hypnotic Sales Techniques”](#) has been viewed more than 85000 times and followed by 3000 people on Twitter.
- Lived in 5 countries (South America, western Europe, eastern Europe)
- Creator of a computer vision program to detect snipers hiding in the forest, on live video
- Creator of a Python program to automate online dating
- Certified PADI “Rescue Diver”
- Certified bodyguard (Close Protection Operative)
- NATO-certified Private Military Contractor (PMC)
- Martial arts practitioner (+20 years)

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