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THE IMPLICATIONS OF ROBOTICS AND ARTIFICIAL INTELLIGENCE FOR ECONOMIC GROWTH

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ABSTRACT

The Industrial Age, which humanity entered long ago with the invention of the steam engine, resulted in the introduction of primitive mechanization into the manufacturing process. Electronics, nanotechnology, advances in medicine, health, and digital applications, among other things, are accelerating the study of mechatronics today, thanks to the development of the internet and mobile technologies. Robotics and artificial intelligence occupied a prominent position on the agenda of the last World Economic Forum, and economists such as Roubini and Stiglitz participated in the discussion of how robotics and artificial intelligence will impact the economy and business. However, even though Stephen Hawking has expressed concern about the risks involved in this regard, we are witnessing tremendous news and articles in business pages daily regarding these topics, and corporate life and professionals are no longer able to resist these changes. The changing nature of business terms and work forces, as well as the way businesses are conducted in the age of new technologies, will have significant implications for daily business life, as well as for the economies of individual countries and the global economy. The advancements in Artificial Intelligence will have a significant impact on many items and headlines in business and economics such as the jobless ratio, the Philips Curve, performance management, Analytics customer relationship management, sales and strategic planning mass production, Purchasing Power Parity (gross domestic product, inflation, money, Central Banks banking system, coaching training, accounting taxes, and many other items and headlines. One simple example can help to illustrate the magnitude of these ramifications: Would you recommend that the company maintain provisions for severance pay for its employees or that we calculate a reserve for depreciation / amortization for its robots? Would you recommend that we keep the term "human resources" in the title of the company's balance sheet, or would you recommend that we remove it entirely the purpose of this conceptual and hypothetical paper is to address and discuss the future of robots, mechatronics, and artificial intelligence from a variety of viewpoints and perspectives.

Keywords: Artificial Intelligence Implications of Robotics Economics Development Management Business.

INTRODUCTION

The evolution of new technologies, such as mobile and the internet, while on the other hand, financial crises, and economic developments, accompanied by shifting customer needs and behaviors, continue to exert significant pressure on the world economy, on countries and their budget deficits, on financial services, and on businesses, particularly on the profitability and revenue sides of the financial tables. The most recent global financial turmoil has accelerated the transition of humanity into a new epoch by having significant impacts and consequences on the global economy and financial markets. It has been observed that capital movements and cash flows, particularly to emerging countries through risk capital funds, business angels, non-bank financial institutions (such as microfinance), mobile operators, and other means have boosted new entrepreneurships, SMEs, and most importantly, innovation and more research in companies and industries across the developed and 20 countries have been / are being exponentially increased. The "Digital Age," which began with the introduction of the internet and mobile technologies, has compelled corporations to open their stores in the cloud and on the web, to mobilize in tandem with their customer base, to drag governments into

launching their e-government initiatives, and financial institutions to present themselves on tablets, mobile phones, and social media platforms. The introduction of a new type of business known as e-business, which includes e- signature, e-invoice, e-commerce, the internet, mobile banking, and e-payments, has resulted in a significant increase in efficiency in both corporate and individual life. By minimizing or optimizing work processes, as well as re- engineering business processes, the industrial age has been transformed into the digital age with the help of e-business environments. On the other hand, as the amount of information continues to grow exponentially every single day, the business environment has been forced to analyses big data while also reacting in real time through CRM systems. Although the digital age, along with other sciences such as mechatronics, nanotechnology, genetics, and so on, is a step toward "Space Economics," some other advancements will have a greater impact on business and economics, either directly or indirectly, than other advancements soon. These technological advancements are referred to as Robotics and Artificial Intelligence. The Industrial Revolution and mechanization, which took place primarily in the United Kingdom and by automobile manufacturers, marked the beginning of the "Industrial Age" (Kenzie, 2015). When it comes to production and the supply side of economics, the first decades of the twentieth century saw a significant impact on business and economics in the United States. Because of the industrial age developments and mechanization, production factors such as capital, entrepreneurship, labor force, and land have all been altered. In addition, lifestyle, education, finance, and management have all been altered because of these effects (kyr, 1985). White collars and management have been brought onto the agenda to deal with new issues and problems, which has resulted in the creation of higher education needs due to the level of information, decisions, and quality of the work force required (Keller, 1983). Workers have begun to live in housing estates, large buildings, or complexes to be at the same working time at factories or production lines. This has directed their lifestyle to live in cities rather than villages to be at the same working time. Wages and wealth have influenced purchasing attitudes and social behaviors, among other things (Davies, 1962). Increasing the efficiency of human labor costs on the one hand, through bulk population management, such as transportation, municipal services, and employee rights, on the other hand, through depreciation of allowances for machines in production lines, and the calculation of the return on investment of these production lines, has resulted in the development of new accounting and finance definitions, as well as the concept of the cost of capital). A new chapter in the history of economics and business will be opened by robotics and artificial intelligence, which will also bring about changes in lifestyle and other sociological consequences. According to Roubini and Stiglitz (2014), possible outcomes and consequences of these effects have been discussed at the World Economic Forum 2015 (WEF, 2015) and in papers, and news has recently begun to be published on the same topics because of these discussions and papers. One of the most obvious consequences will be an increase in the unemployment rate in the economy. The hiring or purchasing of new robots will be affected by this first effect on the business side, which will most likely have artificial intelligence when compared to the first movers. This conceptual and hypothetical paper begins with a summary of the most important definitions, trends, and most recent facts that are still influencing economics, business, and finance today, as well as their implications. To address and discuss possible disruptive changes and impacts on industries, management functions, and economic theories with visionary perspectives that may will occur soon, this paper primarily employs an innovative and futuristic approach to thinking (Muayad, A. Y., & Younis, H. 2021). Most of the arguments are still being debated or may not be valid with today's disciplines, but the future is directly related to imagination and estimation, as Jules Verne wrote in his novels, and future is directly related to imagination and estimation.

REVIEW OF THE LITERATURE AND HYPOTHESES

Following the 2008 Global Financial Turmoil, which began with the failure of Lehman Brothers, the first hypothesis would be that a new era known as "Space Economy" has begun in the world's economics and finance agenda (Lewis, 2014), owing to the primary reason of economics, low resource allocation and optimization among the population (Lewis, 2014). Central banks, which are first and foremost responsible for managing the value of money and maintaining price stability, played critical roles in the financial crisis of 2008 by exponentially increasing the money supply and monetary base expansion, which they had already been doing steadily prior. (Artigas, 2010). Central banks' quantitative easing and government bailouts by the G-20 and developing countries were undertaken to avert bankruptcies and bankruptcies of banks, financial institutions, and treasuries of countries, to halt credit crunches, to recoup financial losses incurred during and after 2008, to stimulate economic recovery and GDP growth, to restore balance to the global economy, and to maintain World Economic stability. In addition to central banks' balance sheet expansions, the changing form of money in the digital age (liberalization of printing / issuing money as well as developments on mobile financial services, the rapid development of payment systems, non-financial intermediaries and non-bank institutions such as Wal-Mart, business angels, risk venture capital, crowdfunding and microfinance institutions beginning to take an active role in the financial markets, and by the hegemony of the United States government, there has been a shift (AFI, 2010). Funding a project or obtaining capital and loans for investments will be much easier than it is today, allowing entrepreneurs and small and medium-sized enterprises (SMEs) to discover and produce more easily, and allowing companies to invest in more research, innovation, and patents to launch new products and technologies (Muayad, A. 2021). In many countries, including the European Union and the United States, it is expected that funding and supporting SMEs will aid in meeting inflation, GDP growth, and unemployment ratio targets (European Commission, 2011; (Ahmed, M. Y., & Younis, H. 2021). European Commission, 2011). On the other hand, the use of Bitcoin-type digital forms of money (e-money) will be a significant competitor for banks and central banks, resulting in increased volatility in the financial system and the economy (Popper, 2015). If global regulation is not implemented, (Central) Banks will experience revenue and seignories losses. People and business environments, including but not limited to governments and related organizations, will seek new opportunities to lower costs and increase revenues by improving efficiency and productivity. These opportunities will be driven by new trends such as artificial intelligence, semantic studies, robotics, mechatronics, big data mining, cloud computing, neural networks, or main trends such as social media, as well as future directions in banking and financial services (Porter, 1985). Companies could only increase their profitability and long-term viability if they followed one of two strategies: minimizing costs or maximizing value. The advancement of technologies, different sciences, and disciplines, with the assistance of convergence among them, would aid in the achievement of these objectives, and it is expected that more discoveries will be made in the coming years that will cause disruption in business, life, and the global economy (Marrs 2013). Companies that are experiencing low revenue growth in their income statements, as well as a decrease in their profitability and return on capital ratio, will seek, and pursue greater efficiency, productivity, low-cost production methods or resources, as well as respond to increased competition and customer demands because of new scientific and technological developments on the supply and demand side (Younus, A. M2021) Decision makers in these companies will also look to the sky to find the cheapest and most abundant commodities when commodities become scarce and prices rise, resulting in the acceleration of the "Space Economy." Beyond that, various governmental organizations such as NASA (the United States National Aeronautics and Space Administration) and ESA (the European Space Agency) as well as new private commercial companies (Rooney, 2015) have already begun work on interstellar discoveries for alien life and new earth-like planets. All these initiatives and requirements hastened the onset of the Space Economy Era by several years. Indirectly, much research for reaching out to more planets and far beyond the Solar System,

as well as for gaining competitive advantages in military forces (Garver, 2015), assist businesses in utilizing many of these technologies, innovations, and solutions for commercial and trade purposes. Car manufacturers and the automotive industry that are utilizing the findings of the Formula 1 race are incorporating them into commercial vehicles. These discoveries and innovations include the ARPA (United States Defense Advanced Research Project Agency), the father of the internet and web technologies, for facilitating the secret communication needs of the military, the ABS (Anti-Lock Braking System) system of automobiles for the sudden stop requirements of racing cars, and Teflon (Polytetrafluoroethylene, the best-known brand name of PTFE-based formulas is Teflon by DuPont Corporation) for not igniting spacecraft while An international working group led by the University of Washington and NASA, as well as 11 other universities and research institutions, has been formed to search for extraterrestrial life on other planets. (2015); (Wall, 2015). More research on both the academic and commercial fronts will aid in the development of new technologies in the future. Farley (2015) defines formalized (Farley, 2015). At that point, two other hypotheses are that new military understanding, and wars will take place in space and in the cyber world, respectively, and that (Dillow, 2015) The colonization of the Earth by humanity in space will necessitate new regulations and protection, as well as new politics, and it will also change the way people live and the way cities are built (Wainwright, 2015). So, the Federal Aviation Administration of the United States has already published a slew of new rules and regulations governing commercial space travel (FAA). Even if NASA predicts that alien life in space will be discovered in the coming years (Leopold, 2015), private sector investments in transportation have begun to emerge, such as Pacific and Atlantic railroads in the United States and Lloyds maritime lines in the United Kingdom, as well as the issuance of company bonds and bills, which marked the beginning of the capital markets and the New York Stock Exchange, as well as the issuance of risk insurance policies (Leopold, 2015). As a pioneer in robotics and space technologies, Amazon has used drones for order delivery, with its CEO Jeff Bezos aiming to launch the world's first space shuttle service as early as 2019. Boeing, Google, Lockheed Martin, Northrop Grumman, and AeroVironment are just a few of the companies that have made investments in drone technologies in recent years (Egan, 2014). At that point, some definitions for the robotics and mechatronics that are at the heart of the drones' operation should be provided. Robots, which were first introduced in Prague in 1921 and were the idea of Ibn Sine, an old Turkish – Persian scientist in history (Guhl, 2010), have some human-like anthropomorphic appearance and were first introduced in Prague in 1921. According to Murphy (2000), a robotic is defined as follows: "A robotic is an intelligent robot or a mechanical creature that can function autonomously." As defined by Yu and Kodama (Yu, 2008; Kodama 1986): "A term coined in Japan in the late 1960s, mechanical engineering is the synergistic combination of precision mechanical engineering, electronic engineering, software engineering, and systems thinking when it comes to the design of products and manufacturing processes." Mechanical and electronic fusion is an example of technological fusion in which several different industries are involved. "Mechatronics is the combination of mechanics and electronics." One of the most compelling hypotheses is that robots that look and act like humans will eventually replace human workers in a wide range of fields in business and corporate life. According to another approach proposed by the 21st century center of excellence (COE) at Tokyo Denki University in 2003, a system including the human in the control loop in a structured man-machine interface would improve the human's workforce operational skills by improving the human's operational skills (Yu). Numerous job positions in marketing and customer relationship management fields, including but not limited to sales, after-sales, operations, production lines, call center agents, security guards, and even managers, will be impacted by technological advancements in mechatronics and robotics. Customers at the Mitsukoshi department store in Niobate can receive six-minute guidance from a female-appearing robot named Aiko Chihiro, which is manufactured by Toshiba Corporation and provides information in Japanese about the department store and its products (Hongo, 2015). Other humanoid robots in customer service, such as those

employed by Bank of Tokyo Mitsubishi UFJ, can engage in conversation, and respond to questions spoken to them. While the banking industry, which was the most adversely affected by the 2008 financial crisis, continues to seek greater profitability and efficiency, Robots could be easily implemented in a variety of departments, including front- end customer service. The use of robots in contact centers and teller machines, which are supported and strengthened by artificial intelligence, may eventually eliminate the need for human agents. More specifically, the arguments assume that robots and artificial intelligence will be used even in managerial positions, and the first comers are beginning to demonstrate that this is the case. (2015); (Goldberg, 2015). Keeping the cost of ownership as low as possible. Drone delivery of internal documents between the head office and branch offices would be another cost-cutting measure to consider. In contrast, drone operators will be hired by banks and corporations, with Amazon.com serving as a good example of how this will work. However, the negative consequences of using drones for commercial purposes are the primary topic of discussion. In collaboration with Space Economics, robotics and mechatronics scientists are attempting to find solutions for the commercial use of drones, spaceships and rockets due to existing laws and aviation regulations that only permit governments to use, launch, and fly rockets or space crafts, as well as spacecraft themselves. The Federal Aviation Administration in the United States has already proposed and finalized some regulations for the use of drones in commercial and private operations in the country (FAA, 2015). Initiatives are being carried out around the world to find solutions and to shake hands on general understandings. For example, the one-day conference "Drones: From Technology to Policy, Security to Ethics" was held in Zurich in January, with the goal of reaching a consensus (Lucien, 2015). During the World Economic Forum in Davos, the topics of Artificial Intelligence (Pau, 1986) and Robotics have been the most talked about in the media. According to the findings of Roubini and Stiglitz's studies (Roubini, 2014; Stiglitz, 2014), the threat of increased unemployment posed by robots or technological innovation such as artificial intelligence could be mitigated by the increased efficiency and productivity brought about by robots and computers (Roubini, 2014). Artificial Intelligence (AI) is defined as the scientific studies that demonstrate that computers can think, do, interact, and act in many fields as a human in which people are skilled (Rich, 1985). Cloud computing is a network-based or Internet-based storage environment that enables and facilitates the sharing of knowledge, information, files, and other resources among multiple users and organizations. As stated in NIST Special Publication 800-145, "Cloud computing is a relatively new business model in the computing world," according to the National Institute of Standards and Technology (NIST). According to the official National Institute of Standards and Technology definition, "cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or interaction with service providers. Mell and Grace (2011) developed a formalized (Grance, 2011). The most primitive and well-known artificial intelligence is Apple's Siri, a learning lady who aids Apple IPhone owners through voice commands. CEYD-A, a Google Android version of artificial intelligence developed by a Turkish software developer and available at cenker.com, is also available. The author (2015) defines formalized formal on the basis of Charles Morris' book "Fundaments of the Theory of Signs," Lolli defined artificial intelligence and semantic search in search engines, which also defined semiotics, which is used by computer engineers and software designers. Semantics, semantics, and pragmatics are the three components that make up the field of semiotics. SEO (search engine optimization) is a term that refers to the process of conducting web searches in search engines such as Google and Yahoo. It is a type of artificial intelligence (AI) that recognizes the basic needs of searchers, recognizes the words they are looking for, and takes the intent and meaning of the search query into consideration (Lolli, 2013). While "Neural Networks" are capable of learning and memorizing when provided with relevant examples, they are incapable of producing valid and correct or prioritized answers from massive amounts of data. "Neural Networks" can

be summarized as a combination of bid data, the internet, semantic search, artificial intelligence, and cloud computing. Taylor (1993) defined formalized euphemism as the use of robots and drones that use large amounts of information called big data from many databases or connected to cloud computing and managed by artificial intelligence could be included in production lines and organizational charts of companies, as well as on the agendas of managerial boards and human resource management committees, according to one of the proposed solutions (Wernimont, 1984). The money and capital markets were able to demonstrate the beginnings of this assertion. Using a variety of theories, such as the Markowitz portfolio theory, RAROC (risk-adjusted return on capital), MACD (moving average convergence/divergence), or VAR (value at risk), special financial market software can calculate the risks of investment portfolios that bear risks and, based on the commands and instructions given to the software by the portfolio managers, transact automatically in financial markets 7 days a week to execute stop-loss or stop-gain orders. Following the invention of microchips and computers, Roubini referred to these developments as the Third Industrial Revolution (Third Industrial Revolution) (Roubini). To implement Porter's Value Creation Theory, banks and companies in the retail industry or other industries will need the assistance of robots that have artificial intelligence features, which will increase the efficiency of business processes and productivity by extending real working hours up to 7/24, which will be maximizing the nominal 7/24 benefits of alternative delivery channels or sales points, among other things (Porter, 1985). Robots and artificial intelligence, on the other hand, will create a significant paradox and dilemma by replacing human labor with their counterparts in the workplace. Nesta, a London-based non-profit research and innovation group, conducted research that was co-authored by Oxford University academics that revealed the lowest probability of works ranked below that computerization could affect in the United States (Porter, 2015). The research found the following: Professional translators and interpreters (6.6percent), Artists who perform on stage (8 percent), Radio and television broadcasters (6.7 percent), Producers of motion pictures and television shows (9 percent) and Research and development in the natural sciences (8.5 percent) Creativity and Robots: A Report on the Future of Work finds that office administrators, call center employees, librarians, cattle and crop farmers, loggers, miners, car salesmen, and hotel employees are the occupations that are most susceptible to computerization and job replacement by robots. Only a quarter of the 721 occupations surveyed are considered highly creative (Mizroch). Because capital owners and human resource managers are choosing to replace such efficiencies and innovation with other options, Stiglitz asserted that unemployment would rise in the future. At this point, the paradox begins to play out. When the purchasing power of money is devalued and inflation occurs, people who have lost their jobs or whose wages have been reduced are unable to save money and will not spend more, resulting in a period of deflation. Due to a lack of customer demand, investors' reluctance to make new investments that generate new job opportunities will begin to wane, resulting in a Catch-22 situation. The greater the decline in demand, the greater the need for increased efficiency on the supply side. The more that supply and demand diverge in the markets, the more that Central Banks loosen money supply and lower interest rates, thereby encouraging businesses to innovate. Finally, increased innovation results in the replacement of lower skilled workers with higher skilled workers. (2014); (Stiglitz, 2014). Considering this paradox and other factors, Stephen Hawking, one of the world's greatest astrophysicists, proposed that humanity should begin colonizing other planets because artificial intelligence and robots will eventually replace humans in industries and daily life (Kontzer, 2015). However, even though Isaac Asimov wrote a short story called "Runaround" in 1942 that explained that robots should never harm humans or disobey orders, and that his "Three Laws of Robotics" became guiding principles for robotics and artificial intelligence, many beliefs are on the side of humanity because of the rise of machines (Stampler, 2015). Discussions on the security of data and information, as well as the privacy of individuals' personal information, are also important issues that humanity should address (Robinson & Parker, 2015). One of the most recent arguments is that speaking sensitive information in front

of Samsung Smart TVs or Sony PlayStations could be overheard by others or transmitted by voice recognition systems (Hern, 2015). Hawking also speculated that "Alien Life" might not be particularly friendly. Although it has not yet been proven that life exists on other planets, evidence of water and chemical gas forms have been discovered on a variety of other planets, including those outside our Solar System. SpaceX, Lockheed Martin, and Blue Origin are among the private companies working to land the first humans on Mars as a colony, and preparations are still ongoing not only within NASA but also within the private sector (Malik, 2015). Controversy, the taxpayers who will benefit from these inventions that they will use inexpensively in their daily lives and will bring many facilities by efficiency, want to see more entrepreneurs like Elon Reeve Musk, the CEO of spaceX, and private companies in these research and innovations because of budget deficits caused by governments' expenditures that result in the imposition of higher tax obligations on their citizens (Davenport, 2015). To meet the demands of the taxpayers, the National Aeronautics and Space Administration launched the Commercial Crew Program in 2011. (NASA, 2015). The intelligence of humanity has already ruined nature and the economy itself, first through the Industrial Revolution and then through toxic financial instruments such as derivatives, which cannot be leveraged by the global real-World Economy. Without considering income inequality, the derivatives contracts volume, which stood at 630 trillion USD as of December 2014, is nearly nine times larger than the world GDP, which stood at 75.5 trillion USD as of December 2014. (WB, 2014; BIS 2014). If a clearing and settlement system is required, the combined assets of central banks in emerging markets and advanced economies, which total approximately 17.5 trillion USD, and official foreign exchange reserves, which total approximately 40 trillion USD, would not be sufficient to compensate governments and corporations for their debts. As a result, governments and businesses are attempting to close the gap through the real economy, keeping in mind that, as Einstein noted, the compound interest rate is the most powerful force on the planet. Central banks are unable to curtail quantitative easing due to the deflation and recession that the world economy is experiencing, as predicted by the International Monetary Fund (IMF). Before the "Space Economy," there are terms and first steps to be taken to promote innovation and the use of big data and cloud computing. Other terms and first steps include: business angels; microfinance; crowdfunding; mobile financial services; financial inclusion; and access to finance. To find new types of value creation or added value services, such as those provided by Apple iPhone, Tesla cars, Facebook, WhatsApp, and other social media platforms, governments and businesses must support and use them in order to obtain economic and balance sheet recoveries. This has resulted in the continual development of novel innovations, inventions, tests, and research, as well as ongoing discussions and the formulation of new hypotheses, which is due to the nature of these new trends and scientific disciplines. Some of these efforts can be summarized by the examples that follow. Electric vehicles will take the place of gasoline vehicles in areas where climate change is a major concern in the face of the extinction of humanity by robots and artificial intelligence. Tesla, a leading manufacturer of electric vehicles, has developed a home-type electricity battery that will allow it to store large amounts of energy (Riley, 2015). 2015). Some other traditional automobile manufacturers attempt to respond to their new competitors by developing alternative technologies or chemicals that attempt to replace oil-based solutions (Spadden, 2015). NASA is working on a Google Glass-style intelligent glass for astronauts that will assist them in their missions. If a repair action or additional information is required during the space visits, they can be sent into space (King, 2015). Wearable smart devices are among the other developments, and companies such as E-Trade, one of the largest online trading platforms, have adapted their applications to work on these smart devices almost simultaneously with the introduction of these devices (Futures Mag, 2015). Nanoparticles, nanotechnologies, and nanomedicine are gaining momentum in the fight against diseases such as cancer and Ebola, and virtual reality is being used to treat mental illnesses such as disorders, phobias, and anxiety (Shadbolt, 2015; Kelly 2015). The German Research Center for Artificial Intelligence (DFKI) in Bremen, Germany, has suggested that mining or

discovering the Moon could be done with robotic technology. The DFKI is working on robots designed to look like chimpanzees for their lunar missions (Shadbolt, 2015). The World Economic Forum lists robotics, artificial intelligence, and drones as three of the ten most promising emerging technologies for the coming year (Meyerson, 2015).

CONCLUSION

The purpose of this paper is to serve as a starting point for future articles, papers, readings, and research. Further academic works supported by quantitative and market research methods would be the next steps in highlighting the business and economic implications of the hypotheses and assertions made in this paper. By their very nature, most of the arguments, assertions, and suggestions are either not yet in place or are only in the very early stages of development. As a result, the majority of the references cited are from the most recent developments in scientific research and from business, but the findings and consequences are consistent with the previous literature on innovation and technological impacts on business, the economy, and everyday life. As a summary, the current impacts and expected disruptive changes of artificial intelligence and robotics on the economics and business which are the earlier stages of the "Space Economy" would be as follows in the near future: The production, communication, marketing, and staff costs as well as funding and capital costs by calculating real-time on-line the effect of the value proposition and offers to customers on the balance sheet and income statement and maximizing the value proposition and offers to customers. In marketing, combining sub-headings in an analytical CRM environment in marketing with customer behaviors and neuromarketing with the convergence of mechatronics, robotics, cloud computing, artificial intelligence, neural networks, customer experience, and relationship management would shift to the second phase by these high-tech solutions and products, as suggested by the term "Artificial Intelligence Marketing" (Tarhan, 2010). Hologram technology will enable businesses, particularly in retail, to interact with and reach their customers without any limitations, such as those imposed by direct mailing, but it will also reduce sales, after-sales, and delivery costs. It is also possible that hologram technology will provide banks and financial institutions with new delivery and sales channels through which they can reach customers, staff and board meetings, among other things. Similarly, (Murray and Keevil, 2014). Companies and governments should be prepared for, and open to, implementing such innovations and processes as soon as they become available. A direct consequence of the shift from alternative delivery channels to a technology-based business environment will be a change in the organization charts of companies. Corporate executives and general managers, as well as presidents, would come from information technology, engineering, mechatronics, or scientific backgrounds; they would also have roots or experience in positive sciences in order to deal with the new issues arising from new terms and understandings as well as to respond to the sustainability expectations of shareholders and regulators. On the other hand, in addition to organizational charts, innovation and technological advancements will result in the unemployment of low skilled (human) labor forces in the future (Hirst, 2014). With these developments, the unemployment rate, the Philips Curve, Purchasing Power Parity, the Gross Domestic Product, inflation, money, management, and accounting will all experience significant changes in the coming years. The majority of organizational development activities that have already changed their forms due to e-learning, webinars, gamification, or coaching, mentoring, and leadership terms in which the human resources department is investing would be veteran trends in business life as a result of the influx of new workers into the workforce. Human resource managers would have to deal with the issue of employee performance management for the first time. Personnel and robotics evaluation should be handled differently in the workplace, according to new approaches. New security regulations and guidelines should be established, for example, for a drone that lands in a prohibited area or for the use of a robot in public places, for example. The same reasoning could be applied to social security and employee benefits as well. Space Economy will undoubtedly usher in a new era, as

evidenced by its implications and consequences for economies, businesses, and everyday life. It is necessary and desirable to review many schools, theories, textbooks, studies, hypotheses and theses, papers, and articles. It is also necessary to revise business and economic theories, which include the Austrian School of Economics, Keynes, Marx, and other thinkers who have defined economics within the confines of this world, and this will be done. Some of the examples include the International Chamber of Commerce, Incoterms, the insurance industry, the World Bank, and the United Nations.

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