

## Artificial Intelligence Versus Human Intelligence: A New Technological Race

**Bahman Zohuri<sup>1\*</sup> and Farhang Mossavar Rahmani<sup>2</sup>**<sup>1</sup>Adjunct Professor, Golden Gate University, Ageno School of Business, Data Analytic, San Francisco, California, USA<sup>2</sup>Professor of Finance and Director of MBA School of Business and Management, National University, San Diego, California, USA**\*Corresponding Author:** Bahman Zohuri, Adjunct Professor, Golden Gate University, Ageno School of Business, Data Analytic, San Francisco, California, USA**Received:** April 03, 2020**Published:** April 29, 2020© All rights are reserved by **Bahman Zohuri and Farhang Mossavar Rahmani.****Abstract**

Today, artificial intelligence (AI) is capable of learning from its experience through the element of its Machine Learning (ML) in conjunction with Deep Learning (DL) component and using them to adjust to new input and perform human-like performance, or at least to complement and enhance human abilities. Because of this capability, it pervades every aspect of the enterprise in the years to come. That is why we believe AI, Automation, and Analytics are central to the success of the enterprise and encompass critical business areas, including data, business processes, the workforce, and risk and reputation.

The vision for AI should be guided by innovative thinking - with the long-term objective of enhanced or new, business strategies, and models. The generation of computers known as Quantum Computer (QC) with a quantized technical approach processing unit is opening a new door toward the next generation of AI, which we have introduced to as Super Artificial Intelligence (SAI). Thus, the trend certainly is there, and although these generations of SAI and QC are supposedly are making our life easy to deal with in this fast paste technically growth, yet they are in a serious race with their inventors known as Human. One other adverse effect of AI on humans with it thrive toward SAI is increasing human depression, and some details are presented here in this article as well.

**Keywords:** Artificial Intelligence; Human Intelligences; Industry and Artificial Intelligence; Machine Learning; Deep Learning; Quantum Computer; Super Artificial Intelligence

**Introduction**

"The rise of powerful AI will be either the best or the worst thing ever to happen to humanity. We do not yet know which" Stephen Hawking.

The development of the most advanced AI has given birth to many questions about which many experts debates. Questions such as: do we truly understand the ramification of our actions in pushing the boundaries of AI? Do we understand the impact of the evolution of AI and its application to humanity? Is AI in competition with Human Intelligence (HI), or it could complement it?" Can robots replace humans, and demonstrates that by operating beyond direct human control? Can keen artificial intelligence pose serious problems, paving the way for all manner of extrapolations? And finally, what is our ultimate goal in advancing AI?

In this article, we explore the idea of what might happen if Artificial Intelligence turns out to be our competitor rather than stay as a tool to assist us in solving our problems or having a better life. For example, implanting silicon chips in the brains of a privileged caste, and exposing the significant gap still present between the proponents of "singularity" and certain philosophers. With insights from mathematics, cognitive neuroscience, and philosophy, it enables readers to understand and continue this open debate on AI, which presents concrete ethical problems for which meaningful answers are still in their infancy.

In today's growth of modern technology and the world of Robotics, significant momentum is driving the next generation of these robots that we now know as Artificial Intelligence (AI). This new generation is attracting tremendous attention of scientists and engineers. They are eager to move them to the next generation that is smarter and more cognitive, which we now call them Super Artificial Intelligence (SAI).

In our both published paper (1) and book (2) We defined Artificial Intelligence as "a set of computer and mathematical theories and techniques that develop complex computer logic and programs that are able to simulate certain traits of Human Intelligence (HI) such as reasoning, learning, conscience, feeling, cognitive, etc. capabilities".

Such notion was described and originated by Marvin Lee Minsky, an American cognitive scientist concerned largely with research of artificial intelligence and co-founder of the Massachusetts Institute of Technology (MIT)'s AI laboratory.

AI or SAI can also be defined as the science of designing series of machines capable of doing tasks and things that require intelligence, when they are done by humans, yet in faster and real-time means of processing.

Artificial Intelligence (AI) consists of implementing a number of techniques aimed at enabling machines to imitate a real form of

intelligence. AI is implemented in a growing number of fields of application.

Background: The notion and idea of artificial intelligence were established by mathematician Alan Turing in his book "Computing Machinery and Intelligence" [5].

He raises the question of bringing machines a form of intelligence. He then describes a test known today as the "Turing Test" in which a subject interacts blindly with another human, and then with a machine programmed to formulate meaningful responses. If the subject is not able to make the difference, then the machine has passed the test and, according to the author, can genuinely be considered as "intelligent".

With artificial intelligence, humans rub shoulders with one of their most ambitious Promethean dreams, i.e., to make machines with a "spirit" similar to their own.

The scientist and leading pioneer John McCarthy along with Marvin Lee Minsky in the field of artificial intelligence, creators of this concept that "any intellectual activity can be described with sufficient precision to be simulated by computer science, electronics, and cognitive sciences".

Of course, this is the challenge-even more controversial within the discipline-of these researchers at the crossroads of computer science, electronics, and cognitive science. Despite the fundamental debates it provokes, artificial intelligence has produced several spectacular achievements, for example, in the fields of pattern recognition, voice recognition, decision support, or robotics.

With the first generation of computer science and consequently the programming logic as operating system, developed in mid-1950, did come with the ambition emerged to create "thinking machines" that functioned similarly to the human mind.

This ambition is on a very fast track train of science going forward with tremendous speed of innovation, given the new generation of computer science in our hand and get more attractive with attention to very new and creative science of quantum computation along with quantized imbedded chip within heart of computer as a processing unit.

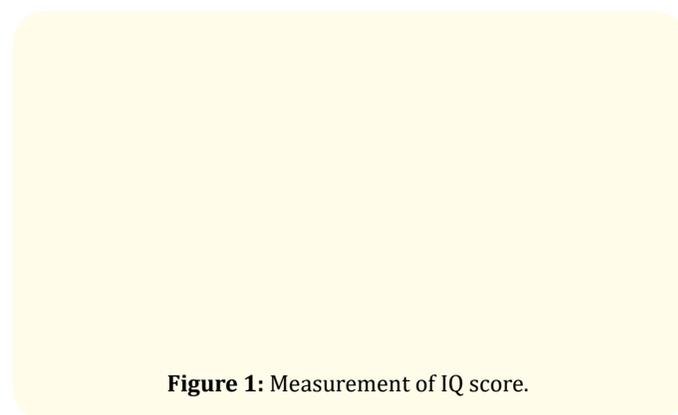
AI and Computer Since- Artificial intelligence (AI) aims to reproduce mental activities with the help of machines, in the fields of understanding, perception, or decision. Artificial and Super Artificial Intelligence (AI/SAI) is distinct and separated from computer science that we came to know as our daily tool, which processes, sorts, and stores data and their algorithms as they present themselves (i.e. Big Data).

In the present case and scenario, the term "intelligence" has an adaptive meaning, as in animal psychology. It will often be a question of modeling the resolution of a problem, which can be new, by an organism. While expert system designers want to identify the knowledge needed for professionals to solve complex problems, researchers working on Neural Networks (NNs) technology [3,4] and robots, where they are trying to draw inspiration from the nervous system and the animal psyche.

### Is human intelligence really at risk by AI

One of the factors that we know and measure human intelligence is called Intelligence Quotient (IQ), which measures one's ability to reason and solve problems.

It primarily reflects how well a person did on a specific test as compared to other people of the same age group. While tests may vary, the average IQ on many tests is 100, and 68 percent of scores lie somewhere between 85 and 115 [6] (See figure 1).



**Figure 1:** Measurement of IQ score.

While IQ can be a predictor of things such as academic success, experts caution that it is not necessarily a guarantee of life success. Sometimes people with very high IQs do not do so well in life, while those with average IQs may thrive.

The measurement of intelligence has long been a hot topic in psychology and education-and a controversial one. Intelligence tests are one of the most popular types of psychological tests in use today. Ever since the first IQ tests emerged, attempts to classify IQ have followed. Historically, the way IQ is measured is through IQ tests and have been scored in one of two ways [7]:

1. In the first method, a person's mental age was divided by their chronological age and then multiplied by 100.
2. In the second methods involve comparing scores against the scores of others in the individual's same group.

More details can be found in reference on web site presented by Kendra Cherry [7].

In summary, Intelligence tests are designed to measure crystallized and fluid intelligence. Crystallized [8] intelligence involves your knowledge and skills you have acquired throughout your life while, fluid intelligence is your ability to reason, problem-solve, and make sense of abstract information.

Fluid intelligence is considered independent of learning and tends to decline in later adulthood. Crystallized intelligence, on the other hand, is directly related to learning and experience and tends to increase as people grow older [7].

However, since the inception of the very first tests of intelligence, both academics and armchair psychologists have debated differences in intelligence, including possible connections between IQ and race.

In addition to connections between race and IQ, people have also attempted to connect IQ disparities to other factors such as sex differences and nationality.

Furthermore, when you think about intelligence, what sort of things comes to mind? Intelligence is more than merely the accumulation of facts. It also encompasses the ability to learn new things as well.

So, when you think of intelligence, you might think of having much knowledge about different subjects. But you also might consider quick thinking and the ability to reason. Such factors represent what psychologists refer to as fluid intelligence and crystallized intelligence [8].

The bottom line is that we can state that access to symbolic systems is part of human intelligence, and measuring human intelligence is an observation materialized by Intelligence Quotient (IQ) and a means of testing an IQ measurement along with it.

However, we should bear in mind that our intelligence and our intellectual abilities and our efficiency are sharply increasing by technological progress sounding our daily life. This matter is analogous to Artificial Intelligence (AI) will get smarter in the form either supervised or unsupervised, while is proactive with Machine Learning (ML) and Deep Learning (DL) during their real-time updating of data from historical to incoming data by ingesting these data for right and trusted information, thus enhances the rule of AI decision making assigned to them.

### Critical business areas for transformation driven by AI

Every day businesses are facing the vast volume of data. Unlike before, processing this amount of data is beyond Master Data Management (MDM) to a level that we know it as Big Data (BD) that is getting around at the speed of the Internet. Since our daily operations within any organization or enterprise are expanding the Internet of Things (IoT), dealing with these data either structured or unstructured also is growing at the same speed, thus processing these data for extracting the right information for the proper knowledge growing accordingly.

Today's AI technology is a platform that is integrated, in any organization and enterprise as a cutting-edge and open source tools as a pattern and leading-edge technologies supported by its ML and DL.

Such a platform enables the organization to accelerate the development of solutions and "time to market" needs, as presented in figure 2 and 3.

The bottom line, access to the latest technology and services in today's world, allow organizations and enterprises to solve their business issues in real-time with the right decision accordingly.

As part of AI deployment options available to the organization in order to cater to a client's and business-specific needs, the following functionality should be taken under consideration, and they are:

**Figure 2:** Foundation capabilities

**Figure 3:** Data components.

- One-time service/analysis.
- Custom solutions.
- Analytics as a service.
- Complete AI-Platform design and implementation.

Of course, taking advantage of modern technology in order to increase our enterprise market share and resiliency is the goal of any C-Level management within any organization. This is part of the "Scale Now" inspiration. It is time for organizations to think bigger and bolder and scale their AI efforts.

List of critical business areas for transformation that seems is part of facilitation of AI platform implementation is presented here as table 1.

Although table 1 content is an indication of a few optional reasons that are driving enterprise toward the implementation of Artificial Intelligence, the new technology platform and their transformation to modern technology is what that helps their market resiliency and survivability. However, the potential impact of it on their workforce, either at "White" or "Blue" working resources in that organization.

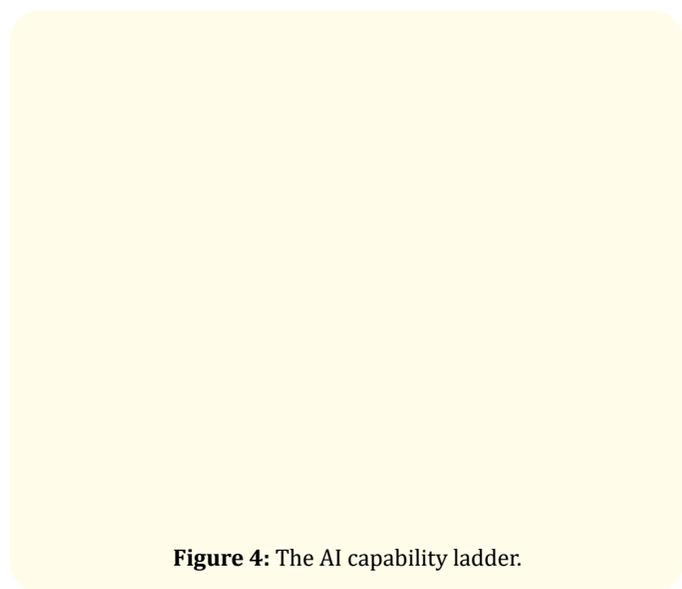
### Reaching to artificial intelligence summit

There is a lot of startup company out there they are suggesting such a path to the summit of AI, and one them is a company named "SENSE CORP" [10]. This company in a published white paper available from their site is suggesting that reaching the AI summit and implementing this platform to your organization, requires a definitive step-by-step playbook for setting up your AI organization with right toolsets and they demonstrate that in figure 4 here as the Artificial Intelligence Capability Ladder:

As the figure 4 demonstrates, the perspective of what the future looks like with augmentation AI is largely informed by Hollywood. Whether watching a Terminator movie or deciphering the plot twist in *Ex Machina*, we often have a view of a world where AI has replaced humans.

Data expertise	<ul style="list-style-type: none"> <li>• Identify and maintain high quality data sources, both internally and externally</li> <li>• Ensure appropriate access to data sources</li> <li>• Enforce enterprise security standards, controlling access to data, including encryption, monitoring, back-up and recovery.</li> <li>• Centralize data management processes</li> </ul>
AI technology	<ul style="list-style-type: none"> <li>• Establish a consistent set of AI, Automation and D&amp;A tools</li> <li>• Design hardware infrastructure, whether on premises or cloud-based</li> <li>• Support the ingestion and analysis of Big Data</li> <li>• Intentionally build scalability of computing resources into the design to enable flexibility</li> </ul>
Business Process	<ul style="list-style-type: none"> <li>• Leverage AI, automation and D&amp;A to improve productivity and build a competitive value chain</li> <li>• Automate decisions that include recurring processes</li> <li>• View analytics as a critical input in making operational decisions</li> <li>• Go beyond reactive reporting towards accurate forecasting and insights</li> </ul>
Workforce	<ul style="list-style-type: none"> <li>• Ensure the right capabilities to implement the technology, leverage data, and change business processes</li> <li>• Implement transformed organization model through a strategic change management plan</li> <li>• Define standardized performance metrics</li> <li>• Consider implications of job changes on workforce</li> </ul>
Risk and reparation	<ul style="list-style-type: none"> <li>• Involve all stakeholders in prioritization and scoping</li> <li>• Ensure comprehensive evaluation and compliance with regulations</li> <li>• Consider the impact of scope on external reputation and perception</li> <li>• Embed cyber compliance and safeguards</li> </ul>

**Table 1:** Advantage of AI integration.



**Figure 4:** The AI capability ladder.

Most AI experts instead talk about the “Humans Plus AI” concept, a world where AI combines with humans daily. Consider how people talk to Siri on their iPhones, and you see AI interacting with humans every day. Ginni Rometty, the CEO of IBM, has said that if you reverse the letters AI to IA, you get to Intelligent Assistant. This is where AI will support people and make them smarter.

Just as with the invention of the steam engine, locomotive, the automobile, and telephone, human tasks will be automated and people displaced from jobs.

With this shift, there is a tremendous opportunity for people to evolve and adapt by moving up the job ladder, being able to focus on the more exciting aspects of innovation and creation. In fact, the capabilities offered by AI are already being explored across almost every industry.

Bottom line, reaching the AI summit requires a comprehensive understanding of the various factors influencing success, execut-

ing on the multiple inter-related activities, and achieving wins in phases.

As of today’s, AI technologies are concerned, organization. Our approach is different. We view developing your AI capability akin to climbing a mountain, which requires many aspects coming together to get to the top.

We lead you through this climb in phases, allowing you to get to higher levels, acclimatize and anchor your position, and then push to reach the next camp. It begins at base camp, and each phase takes you higher, finally allowing you to reach the summit.

**Business optimization processes driven by AI**

In this step, we need to “move from the theoretical to the practical and unlock business value” by implementing a right AI model [10].

By using AI models, we generate specific ideas and recommendations to drive business value. For example, if we found a way to comb through medical records to recognize a certain negative health outcome, we would want to inform the doctor. Or if we found that a certain vibration pattern and temperature gradient when combined increases the likelihood of failure of field equipment, we would attempt to proactively mitigate the risk.

These modeling recommendations often lead to changes that need to be integrated into operational business processes. When using A/B testing technique, it’s possible to make a controlled change and monitor the outcome to see if the expected result occurs. More importantly, it sets up an environment for improvement through iteration before rolling out the change broadly.

One of the biggest challenges facing early stage AI implementers is realizing the value of the AI investments. Presumably this requires focusing on business outcomes over technology investments, pursuing revenue generating opportunities over cost re-

duction initiatives and partnering with IT to scale the technology rather than trying to run everything through the AI team.

#### Business operation driven by AI solutions and measure impact

Operationalize Artificial Intelligence (AI) solutions, and measure impact it requires to “track the value captured, support the value-captured processes” as well [10].

In addition to making needed business process changes, the technology might also need to change. For example, the data that was used for an initial algorithm might have been sourced from multiple systems. For the algorithm to now operate in production, it might need substantial technology enhancements to production the data integration between the various systems.

Additionally, the algorithm might need to be moved to a support team to ensure it can be maintained and run periodically to measure the impact and outcomes.

Without the right planning and structure, AI teams can end up developing and supporting their models. Over time, the support-related tasks continue to increase, reducing the amount of new development the team can take on.

#### Artificial intelligence versus human intelligence

Some experts believe that comparing Artificial Intelligence (AI) with Human Intelligence (HI) may not be fair when the process is taking place through repetition and regularity procedures. In such cases, the AI always prevail by integrating its ML/DL functionality.

But in case when some tasks require uniquely human attributes, such as human intuition, the outcomes may be different.

Artificial Intelligence (AI) involves the development of computer systems able to perform activities that generally enlist human intelligence. Such tasks include visual perception, speech recognition, and decision-making. AI systems share common attributes: the ability to consume data, the ability to adapt and react to data in their environment, and the ability to project multiple steps into the future. Machine Learning, a particular application of AI, enables computers to use algorithms to give computers access to data to teach themselves.

In the growing debate about AI vs. human intelligence, the given wisdom has been that AI will augment human tasks, but not replace them, anytime soon. Still, a recent talk by Andrew McAfee at the Interop 2017 conference bolstered the argument that machines are edging in on supposedly uniquely human tasks [11].

McAfee noted that 20 years have passed since a computer beat world chess champion Garry Kasparov. A professor at the Massachusetts Institute of Technology, McAfee described the pace of technology change as rising exponentially.

In the 20 years since the match between Kasparov and Deep Blue, “the gap between computer ability and human ability has only gotten more significant,” he said in a keynote session in mid-May at Interop.

“We still underestimate how big, how fast, technological progress is,” McAfee said. “I still keep getting it wrong”.

McAfee also states that in just past two years, Artificial Intelligence (AI) has defied expectations with respect to its fast pace innovative technologies using computer processing units such as Graphics Processing Unit (GPU) or Tensor Processing Unit (TP) and will be getting much more intelligent once we have our arm around the implementation of the Quantum Computer (QC) processing chip.

In the fall of 2015, AlphaGo -- an artificially intelligent system designed by researchers at DeepMind, a London AI lab now owned by Google - lost, 5-0, to the European Go champion, Fan Hui. Six months later, though, machine learning made an aggressive, almost human, comeback. AlphaGo defeated a reigning human champion of the game, Lee Sedol. For McAfee, the event is a tidal shift in the hitherto “clean division of labor” between humans and computers.

In game two of the five-game matchup between Sedol and AlphaGo, the computer program defied basic rules of Go strategy - making a move only a novice Go player would make in error. By employing these sorts of unconventional tactics, AlphaGo won the series, 4-1.

“By every tenet of Go strategy - it does not make any sense,” McAfee said. “I think we’ll see this pattern over and over”.

But those who believe in the uniqueness of human intelligence argue otherwise.

“Certainly, AI is proving to be an invaluable tool, and intelligent workflow is going to be the labor-saving norm within just a few years”, said Scott Robinson, a SharePoint and business intelligence expert based in Louisville, Ky. “But business processes involve intelligent thought and intelligent behavior. AI is great at replicating intelligent behavior, but intelligent thought is another matter. We don’t fully understand how intelligent human thoughts develop, so we’re not going to build machines that can have them anytime soon”.

“[McAfee’s] discussion misses the fact that human workers bring deep knowledge to business processes that AI can’t capture,” Robinson continued. “An office worker knows how other human beings think and behave so that she can anticipate delays or opportunities. There are implicit tasks in all areas of business that are undocumented but natural and deeply ingrained. AI can’t get anywhere near those implicit tasks and passive knowledge” [11].

There is no doubt and will be no surprise, when it comes to a regular and repeated as well as routine processes, AI with its component ML and DL, can perform a better job and do better resource management than human beings. We, as human beings, invented the computer to make our daily routine task to be easy for us and have them do well for what, our human brain and intelligence do poorly. However, there is more to business processes than task execution. Maybe the key difference between AI and human intelligence is that Artificial intelligence is good at processing data but not able to think in the abstract, while humans are weak at processing data and good at making abstract decisions. The question to be considered is that could AI get the inspiration to merge a smartphone and the iPod into a handheld digital apps platform?

Figure 5 is a depiction of a graph showing a day of testing of power usage effectiveness in the Google data center, with integrated Machine Learning (ML) control being turned on, then turned off as well.

**Figure 5:** Machine learning driving google daily data center operation.

### Will artificial intelligence take over human jobs?

From the evidence that we see in artificial intelligence technology and our rush toward implementing AI platform within our organization as it is illustrated in figure 6, we can conclude that today the AI is pretty much part of most organizations and market sectors in today's of any organization operations, no matter how small or large they are. Thus, it is fair to ask this question, whether artificial intelligence take over human jobs ultimately.

**Figure 6:** Depiction of AI in industry.

While the evidence is clear that machine learning and AI-enabled robots will likely surpass human work and tasks in particular in the manufacturing sector, then the question is how many and how soon.

Most analysis from the player in the AI industry and technology suggests that these developments could gather steam shortly and apply not only to repetitive tasks but also to knowledge work. According to the McKinsey Global Institute's report "Harnessing automation for a future that works," 49% of work activity could be supplanted by automation by 2055 [12].

At the same time, McKinsey's "What's now, what's next in analytics, AI, and automation" [12] compared the changes wrought by

AI to those of the Industrial Revolution, where old tasks gave way to new human opportunities. "We cannot definitively say whether historical precedent will be repeated this time," the report said. "But our analysis shows that humans will still be needed in the workforce" as an ultimate actor and decision making.

If Artificial Intelligence (AI) or Smart Robot of new upcoming generation such as Super Artificial Intelligence (SAI) are becoming a threat to our jobs, then we have to think smarter and harder to see what the next wave of opportunity for us as a human being is.

Coming over the new horizon is a new wave of opportunity related to the use of robotics, machine learning, and AI. Companies that deploy automation technologies can realize substantial performance gains and take the lead in their industries, even as their efforts contribute to economy-level increases in productivity.

Some analysts are claiming that, Advances in robotics, AI, and machine learning herald a new era of breakthrough innovation and opportunity.

Recent advances in robotics, machine learning/deep learning, together with AI [13], are pushing the frontier of what machines are capable of doing in all facets of business and the economy.

Physical robots have been around for a long time in manufacturing. However, more capable, more flexible, safer, and less expensive robots are now engaging in ever-expanding activities and combining both mechanization, cognitive and learning capabilities-and improving over time as they are trained by their human coworkers on the shop floor, or increasingly learn by themselves.

Recent developments in robotics, artificial intelligence, and machine learning side-by-side of deep learning have put us on the cusp of a new automation age. Robots and computers can not only perform a range of routine physical work activities better and more cheaply than humans, but they are also increasingly capable of accomplishing activities that include cognitive capabilities once considered too difficult to automate successfully, such as making tacit judgments, sensing emotion, or even driving.

Automation will change the daily work activities of everyone, from miners and landscapers to commercial bankers, fashion designers, welders, and CEOs. But how quickly will these automation technologies become a reality in the workplace? And what will their impact be on employment and productivity in the global economy?

In summary, the advent of a new automation age is raising public concerns about the effect on employment and the future of work.

For most occupations, partial automation is more likely than full automation in the medium term, and the technologies will provide new opportunities for job creation.

From these authors' points of view, this type of thinking may very well apply to the educated and layer of *White Worker* resources, but does it work for the population of *Blue Worker*.

In case of lateral layer, we believe they will lose their jobs to the automation, robotics and artificial intelligence in medium-term

and when, the SAI comes to existence in long-term, white worker layer of our society will be under the gun by same threat, when it comes to their jobs.

In conclusion, to assess the employment implications of automation, we focused on work activities rather than all occupations as a starting point. We consider work activities to be a useful measure since occupations are aggregations of different activities, where each discrete activity has a different potential for automation. For example, a retail salesperson will spend some time interacting with customers, stocking shelves, or ringing up sales [13].

### Depression exponentially increasing by modern technology

With any new modern technology that comes along, there exist specific pros and cons. Here in this section, we take a look at one the cons that is becoming a severe threat to our society in particular among the youths and youngsters between ages of 14 to 26 by pushing this generation toward a global suicide attempt, and most cases end up with losing their lives [16].

Organization (WHO), suicidal behavior is also a major health concern in many countries, developed and developing alike. Nearly 800,000 are estimated to die annually from suicide worldwide. Many more, particularly the young and the middle-aged individuals, attempt suicide. In this paper, it is suggested that modern technology plays a significant role in the increase in the rate of suicide among youths. It is suggested that increasing engagement with social media, driven by a new generation of electronic gadgets and smartphones, is an essential factor behind the increase in the rate of suicides. Heavy usage of smartphones, such as texting, twitting, or having some other forms of engagement through social media, is a contributing factor.

Suicide is a key health concern and a significant cause of death among persons aged 10 - 24 years in the United States. In 2017, suicide was the second leading cause of death among this group, and from 2007 to 2018, the suicide rate increased 56% among those aged 14 - 19 years. Overall, among teenagers, 12 - 19 years, suicide is the third leading single cause of death, after accidents (unintentional injuries) and homicides, according to the latest World Health.

The suicide attempts among youth and youngsters between the age of 14 to 30, globally have been increasing in recent years. According to the statistics, there is a shocking rise in suicide attempts among youngsters. In fact, between 2000 and 2007, the suicide rate among youth ages 10 to 24 hovered around 6.8 deaths per 100,000 people. Then, the rate curved upward, reaching a rate of 10.6 deaths per 100,000 by 2017 - a 56-percent increase in less than two decades.

The suicide rate among people ages 10 to 24 years old climbed 56% between 2007 and 2017, according to the report from the Centers for Disease Control and Prevention. The rate of homicide deaths decreased by 23% from 2007 to 2014 but then increased by 18% in 2017 [14].

Violent death, including homicide and suicide, is a major cause of premature death for the age group. Around 2010, the death rate of suicides among adolescents and young adults surpassed the

rate of homicide deaths, according to the report. Suicide was the second-leading cause of death among 10- to 24-year-olds in 2016, up from third place in earlier years, according to the Centers for Disease Control (CDC) and Prevention [15].

In this context, the researchers are calling for more study of possible gender differences in youth mental health, noting previous findings of a more significant rise in depression in teenage girls compared with boys in the decade leading up to 2014.

One of the main and major causes of suicide attempts is the Impact of "Technology on Mental Health" among these youths [17,18].

### Application of artificial intelligence in suicide risk prediction and management

Although modern technology and electronic gadgets are a huge cause of depression among youngsters and prevent them of having social and face-to-face gathering among their age group except via social media such as Twitter or Facebook, in contrast, it also offers some benefits to prevent to predict and manage suicide risk as well [16].

With the increase in the suicide rate, particularly among the youths, researchers and clinicians have explored the utility of Artificial Intelligence (AI) in suicidal risk prediction and management. Trehani M Fonseka., *et al.* [19] have conducted a general review of the scholarly works on the utility of AI in suicidal risk prediction and management.

According to these authors, several studies have been directed toward the role of AI in identifying suicidal risk and clinical factors such as state of depression, past clinical diagnosis, substance abuse, and treatment history [20,21], while other studies have explored the environmental factors [22,23].

The starting point for most of such studies is Machine Learning (ML), depending on the availability of data, to do modeling and potential prediction. A key challenge in this nascent field is access to adequate and appropriate data. According to Trehani M Fonseka., *et al.* [19], though suicidal risk factors have been generally identified, data has not yet been fully integrated into a reliable predictive model. The clinical process of identifying risk factors and other related diagnoses is still very subjective and varies among therapists and clinicians. As a result, common statistical analytical approaches, which are generally limited in analyzing complex data, have not so far been successful in predicting suicidal behaviors [24].

### Conclusion

The future of autonomy is not just human-less. It is human more. This is an argument among the AI researcher and experts with integrating the Artificial Intelligence platform into the day-to-day operation of our organization from Manufacturing and Production-line, e-Commerce, Banking, to other industries and organizations with a need for Artificial Intelligence (AI).

Technology is transforming how humans and machines work together. That is why a lot of enterprises are investing in the development of optionally manned and unmanned systems that serve as a capability multiplier.

Because the stakeholder at C- and D-level management at any organization recognize that, however, the question is not just about who the best person for the job is-it is about what the best team for the mission is.

Looking at today's thriving technology of AI and Human-Machine Collaboration is taking a different shape, and organizations and enterprises with decision-makers with these entities at the helm need to think ahead and be ahead of 8-ball. This then allows them to have the best resource for the best task either by new sets and series of training or hiring a new knowledgeable resource as part of their workforces.

People are relying on machines to help them make better informed decisions, expand reach and access, and increase safety and productivity. This new era of human-machine collaboration depends on trust and understanding-allowing each component of the team to do what it does best.

Any integration of autonomous or unmanned technologies enables systems within any organization or enterprise to go farther, operate longer, and succeed in harsh, dangerous, rival competition, and cybersecurity threat world conditions. Moreover, within these systems are elements that make them smart regardless of the pros and cons of such system implementation of smartness at the level of AI, and ultimately help users make intelligent decisions.

In summary, going AI is an inevitable event that will help the entities to be more cost-effective and profitable. It is an event that we cannot ignore, so we need to adapt ourselves to it and educate our existing as well as future workforce onboard or coming on board.

In an AI-enhanced future, humans will become better at everything; they will also become safer, less vulnerable to danger.

That is why companies continue to invest in and expand their AI and autonomy capabilities. AI adds value to almost all our products and systems, supporting both military and commercial customers.

AI-enabled autonomous systems are changing the way militaries and companies operate and protect their forces, the way first responders fight fires, how researchers explore the far reaches of space, and the ocean's depths as well as other AI-related use cases.

As the final steps of this conclusion, we as authors of this article, believe that Human Intelligence (HI) Artificial Intelligence (AI) are complementing each other rather than being a threat to one another, in other to make life easier for its partner human.

## Bibliography

- Zohuri B and Rahmani FM. "Artificial Intelligence Driven Resiliency with Machine Learning and Deep Learning Components". *International Journal of Nanotechnology and Nanomedicine* 4.2 (2019): 1-8.
- B Zohuri and F M Rahmani. "A Model to Forecast Future Paradigm, Knowledge Is Power in Four Dimensions". Apple Academic Press, a CRC Press, Taylor and Francis Group (2019).
- Zohuri B and Moghaddam M. "Artificial Intelligence Driven by a General Neural Simulation System - Genesis, Neurology - Laboratory and Clinical Research Developments". Nova Science Pub Inc (2018).
- Zohuri B and Moghaddam M. "Neural Network Driven Artificial Intelligence: Decision Making Based on Fuzzy Logic". (Computer Science, Technology and Applications: Mathematics Research Developments), Nova Publisher (2017).
- A Turing. "Computing Machinery and Intelligence Mind". Oxford University Press (1950): 59.
- Wegenschimmel B., *et al.* "Do we still need IQ-scores? Misleading interpretations of neurocognitive outcome in pediatric patients with medulloblastoma: a retrospective study". *Journal of Neuro-Oncology* 135.2 (2017): 361-369.
- <https://www.verywellmind.com/what-is-the-average-iq-2795284#citation-1>
- <https://www.verywellmind.com/fluid-intelligence-vs-crystallized-intelligence-2795004>.
- L Alexandre. "La Guerre Des Intelligences: Intelligence Artificielle Versus Intelligence". Humaine J.C, Lattés (2018).
- <https://www.sensehq.com>
- <https://www.cisco.com/c/en/us/solutions/data-center-virtualization/ai-vs-human-intelligence.html>
- <https://www.mckinsey.com/featured-insights/digital-disruption/whats-now-and-next-in-analytics-ai-and-automation>
- <https://www.mckinsey.com/featured-insights/digital-disruption/harnessing-automation-for-a-future-that-works>
- Danuta Wasserman., *et al.* "Global suicide rates among young people aged 15-19". *World Psychiatry* 4.2 (2005): 1414751.
- Jean Whalen. "Youth Suicidal Behavior Is on the Rise, Especially Among Girls" *The Wall Street Journal*, English Edition (2020).
- Zohuri B and Zadeh S. "Global Suicide Rate Among Youngsters Increasing Significantly". *Acta Science Pharmaceutical Science* 4.4 (2020).
- Bahman Zohuri and Patrick J McDaniel. "Electrical Brain Stimulation for the Treatment of Neurological Disorders" Apple Academic Press and CRC Press (CRC) Taylor and Francis Group, (2020).
- Bahman Zohuri and David R. "Modisette "Electrical Brain Stimulation to Treat Neurological Disorder". *Journal of Health Science* 7 (2019): 123-128.
- Trehani M Fonseka., *et al.* "The utility of artificial intelligence in suicide risk prediction and the management of suicidal behaviors". *Australian and New Zealand Journal of Psychiatry* 53 (2019): 954-964.

20. Jenkins AL, *et al.* "Risk for suicidal ideation and attempt among a primary care sample of adolescents engaging in nonsuicidal self-injury". *Suicide and Life-Threatening Behavior* 44 (2014): 616-628.
21. Passos IC, *et al.* "Identifying a clinical signature of suicidality among patients with mood disorders: A pilot study using a machine learning approach". *Journal of Affective Disorders* 193 (2016): 109-116.
22. Bonner RL and Rich AR. "Psychosocial vulnerability, life stress, and suicide ideation in a jail population: A cross-validation study". *Suicide and Life-Threatening Behavior* 20 (1990): 213-224.
23. Fernandez-Arteaga V, *et al.* "Association between completed suicide and environmental temperature in a Mexican population, using the knowledge discovery in database approach". *Comput Methods Programs Biomed* 135 (2016): 219-224.
24. Franklin JC, *et al.* "Risk factors for suicidal thoughts and behaviors: A meta-analysis of 50 years of research". *Psychological Bulletin* 143 (2017): 187-232.

#### Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

**Website:** [www.actascientific.com/](http://www.actascientific.com/)

**Submit Article:** [www.actascientific.com/submission.php](http://www.actascientific.com/submission.php)

**Email us:** [editor@actascientific.com](mailto:editor@actascientific.com)

**Contact us:** +91 9182824667