## Impact of Artificial intelligence in the real world

#### Introduction

The world is on the cusp of significant technological and digital evolution. AI or artificial intelligence has managed to integrate itself into a human being's lives in subtle ways, making life easy and convenient and diminishing the notional boundaries between reality and modern-day technology. Newell and Simon created the first AI programs in 1955. AI is the concept of developing computer systems that can execute functions that would require human intellect, some of these tasks could include cognitive problems that involve planning, reasoning and learning, but also perceptual tasks like recognizing speech [1][2]. This puts forth the question of how the application of AI will be utilized and the effect it will have in the future. This paper aims to inform the practical use of AI and its application in the real world. Advancement in artificial intelligence and cognitive technology could have a profound impact on automation in organizations, jobs, and healthcare.

## **Process Automation Using Artificial Intelligence**

Artificial Intelligence is gradually being embedded in an organization's processes to make the workflow more efficient. Firstly, AI and smart machines are good at working with tasks that require expert decision making. AI uses a decision-support system that takes a decision based on past data and analysis of trends. For example, the Hong Kong subway system has an algorithm which scheduled the work of 10000 employees. This subway carries 5 million passengers every day with 99.9% on-time record. AI used in the Hong Kong subway system gathers real-time data, based on which, an algorithm schedules the tasks to keep everything in the subway working [3]. Secondly, jobs that are repetitive and unskilled can be handled easily by automation and AI. Some tasks require humans to do routine work which can be

automated hence increasing the efficiency with minimal errors. For example, the state of Georgia financial commission processes 40000 handwritten pages of campaign finance disclosure. To make the writings public on a deadline, the organization implemented AI automated handwriting recognition system that made it easier for employees to get their work done and published before the deadline [4]. Use of AI helps the organization increase efficiency and reduce cost. AI also makes it easy for humans to perform specific repetitive tasks, and processes that require extensive and complex data analysis for making decisions.

# Jobs in The Era Of Artificial Intelligence

Artificial Intelligence will affect jobs and the labour market as AI is good at perceptual and analytical tasks, decision making, and planning. Many such tasks can be automated, and the need for human intervention in these tasks can be minimalistic. AI will also increase the productivity of performing such tasks at a lower cost. For example, a task such as driving cars can have a significant impact on advancement in AI. Mercedes Benz unveiled their future truck 2025. Future truck 2025 is the world first self -driving heavy goods vehicle, which can navigate autonomously, increase road safety and be fuel efficient [5]. Automobile company Tesla is already a pioneer in self-driving vehicles and claim that its autopilot systems can cut accidents by 40% [6]. However, artificial intelligence does not always work. AI is not developed enough to handle tasks that are ambiguous, require creative inputs or the use of logical and common sense [7]. On sixth May 2010, a flash crash started as the Dow Jones Industrial Average fell more than 1,000 points, leading the company to a loss of equity worth one trillion dollars. The cause of the flash crash was an algorithm typing erroneous order. As trading has become heavily computerized, human intervention in such tasks is essential to identify errors and glitches and prevent such flash crashes [8]. AI will affect various jobs and tasks, but most tasks would require monitoring and human intervention.

# **Applications of Artificial intelligence in Healthcare**

Artificial Intelligence will work alongside humans in the field of healthcare. Firstly, big data analysis helps doctors and health care workers to make an easy diagnosis [9], hence can easily suggest effective treatments. IBM Watson health is an example of AI expert system used by many health organizations[10] [11]. Another example of AI in healthcare is Cincinnati Children's Hospital Medical centre, which created a natural language processing system that uses a machine learning to read clinical notes and recruit people for clinical trials [12]. Secondly, surgical robots will help in tasks that will involve making precise and minimally invasive incisions. Surgical robots enable doctors and healthcare workers in assisting surgeries, disinfecting rooms and dispensing medication [13]. One of the most well-known surgical robot is the Da Vinci Surgical System. The advantage of using this surgical robot is that it can bend and rotate more than human hands [14]. AI can make humans live longer by analyzing and detecting the best possible treatment and also making it easier for doctors to work on many patients at the same time.

### Conclusion

AI is a concept often portrayed as the big bad robot or a magical boon in times of dismay. However, AI is becoming an integral part of many organizations and their workflow. With an accurate analysis of past data, allowing for more precise decision-making skills. AI also aids with various repetitive tasks. AI increases the productivity and efficiency likewise lowering the cost of production, directly affecting the labour market and the workforce. However, human intervention is still required when using AI. AI has allowed healthcare systems to identify diseases and suggest efficient treatments for patients. Surgical robots are a milestone

in medical history, allowing for safer and more precise surgeries. AI has many such applications in the real world.

Word Count: 938

#### Reference list

- [1] M. Tegmark, "Benefits & Risks of Artificial Intelligence," Future of Life Institute. https://futureoflife.org/background/benefits-risks-of-artificial-intelligence/ (accessed Oct. 04, 2020).
- [2] A. Jeavons, "What Is Artificial Intelligence?," Research World, vol. 2017, no. 65, pp. 75–75, Sep. 2017, doi: 10.1002/rwm3.20554.
- [3] H. Hodson, "The AI boss that deploys Hong Kong's subway engineers," New Scientist, Jul. 02, 2014. https://www.newscientist.com/article/mg22329764-000-the-ai-boss-that-deploys-hong-kongs-subway-engineers/ (accessed Oct. 03, 2020).
- [4] R. Walker, "Georgia Solves Campaign Finance Data Challenge Via OCR," InformationWeek, Apr. 15, 2014. https://www.informationweek.com/government/cloud-computing/georgia-solves-campaign-finance-data-challenge-via-ocr/d/d-id/1204471 (accessed Oct. 04, 2020).
- [5] B. Marr, Artificial Intelligence in Practice: How 50 Successful Companies Used AI and Machine Learning to Solve Problems. Wiley, 2019.
- [6] "Tesla's Autopilot has slashed crash rates for its cars by 40%," Business Insider. https://www.businessinsider.in/teslas-autopilot-has-slashed-crash-rates-for-its-cars-by-40/articleshow/56674861.cms (accessed Oct. 06, 2020).
- [7] "AI, automation, and the future of work: Ten things to solve for (Tech4Good) | McKinsey." https://www.mckinsey.com/featured-insights/future-of-work/ai-automation-and-the-future-of-work-ten-things-to-solve-for# (accessed Oct. 04, 2020).
- [8] W. Kenton, "Flash Crash Definition," Investopedia. https://www.investopedia.com/terms/f/flash-crash.asp (accessed Oct. 04, 2020).
- [9] T. Davenport and R. Kalakota, "The potential for artificial intelligence in healthcare," Future Healthc J, vol. 6, no. 2, pp. 94–98, Jun. 2019, doi: 10.7861/futurehosp.6-2-94.
- [10] "Watson Health: Get the facts | Solving Health Challenges thru AI." https://www.ibm.com/watson-health/about/get-the-facts (accessed Oct. 05, 2020).
- [11] Y. Chen, J. Elenee Argentinis, and G. Weber, "IBM Watson: How Cognitive Computing Can Be Applied to Big Data Challenges in Life Sciences Research," Clinical Therapeutics, vol. 38, no. 4, pp. 688–701, Apr. 2016, doi: 10.1016/j.clinthera.2015.12.001.
- [12] "Artificial Intelligence Solution Improves Clinical Trial Recruitment | Cincinnati Children's." https://www.cincinnatichildrens.org/news/release/2019/automated-patient-screening (accessed Oct. 06, 2020).

- [13] "Benefits of Robotics in Healthcare: Tasks Medical Robots Will Undertake," The Medical Futurist, Oct. 08, 2019. https://medicalfuturist.com/robotics-healthcare (accessed Oct. 05, 2020).
- [14] "Surgery Surgical Technology; Researchers at Yonsei University Target Surgical Technology (Real Impact of Surgical Robotic System for Precision Surgery of Parotidectomy: Retroauricular Parotidectomy Using Da Vinci Surgical System)," May 25, 2020.
- [15] M. Totty, "The Worlds That AI Might Create; Artificial intelligence will have a profound impact—on our jobs, our health and possibly our very existence. But that's where consensus ends.," The Wall Street Journal, Oct. 13, 2019.
- [16] S. Makridakis, "The forthcoming Artificial Intelligence (AI) revolution: Its impact on society and firms," Futures, vol. 90, pp. 46–60, Jun. 2017, doi: 10.1016/j.futures.2017.03.006.