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The Impact of Artificial Intelligence and other Emerging Technologies on Business

Khusbu Bangad[1], Dr. Sagar Sanwariya[2]

[1]Assistant professor, pacific college, Udaipur, Rajasthan
9521321454; Khusharry87@gmail.com
[2]Assistant professor, Meera girls college, Udaipur, Rajasthan
9828555477; Sagarsanwariya88@gmail.com

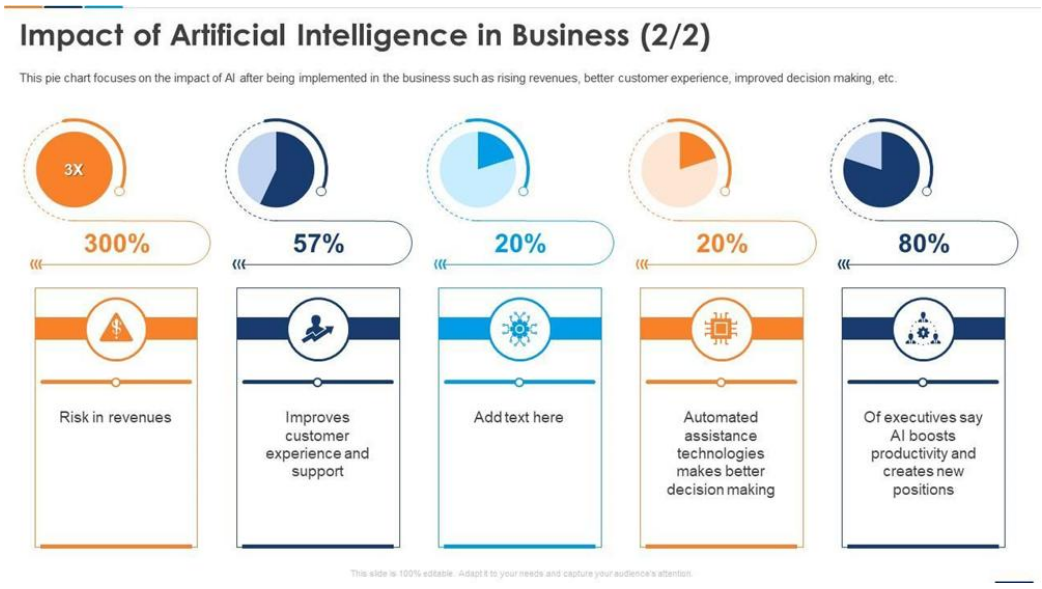
Abstract Artificial intelligence (AI) has garnered extensive attention in recent m inonths for its startling ability to replicate human expression and produce human sounding content. This paper is designed to explore influence and impact of AI and other technologies on business _from market research to final customer access to future possible alteration and growth possible. Here, in seven parts describes how AI, (machine learning), virtual reality (VR), Augmented reality (AR), Robotic process automation (RPA), Internet of things (IOT), 5G, Block chain, large data changing the way we live and our surroundings as well as business world and all with dark sides also.

Keywords Artificial intelligence, virtual reality, Robotic process automation, block chain, Augmented reality, Machine learning.

Introduction

Technological innovation has no limits, and while this technologies could transform the business landscape and how organizations operate on a daily basis, one of the most visible effects they have had so far is how they are (or could) transform the productivity and growth speed of corporations, small or large. Over the next five to seven years, expect wide spread integration of generative AI, including specialised solutions for particulars that use a single personalized AI bot to orchestrate other bots for AI-to-AI commerce, coordinating purchase, delivery and payment with little or no human intervention. We expect generative AI to evolve considerable, but even in its nascent form, this powerful technology promises incredible opportunities when combined with human oversight. By embracing generative AI while addressing its risk and challenges, we can step into the future of commerce and make sure it influences the world for better. The latest edition of Mastercard signals explore this new technology's implication for the future of the commerce _ including its potential to strengthen customer engagement. Create more efficient business operations, support software development and much more. "Unlike other technologies that have seen hype cycle," the report says," generative AI exhibits clear use cases, has led to the creation of robust solutions, and is developing swiftly. New opportunities will continue to appear. This technologies is poised to be transformative across nearly every sector." That includes large enterprises, small businesses, banking, retail and travel. Further advancement of AI and these technologies can contribute in developing hyper automation and hyper connectivity which would bring us at dawn of the fourth industrial revolution of industry 4.0 (Schwab 2017, bloem 2014, Klosters 2016, Park 2017) primarily, the advancement in AI is the heart of the enhanced performance of all other technologies and evolution of industry 4.0. This Advancement of technology, attribute to AI, would facilitate human-to-machine interactions change the logic of business models, and transform the lifestyle and living standards of human. After analysed financial performance of some of the top companies VIZ. Google, Apple, Amazon, Microsoft and IBM working in AI

and related field. Apart from IBM all this companies are founded in last four decades and have managed to achieve top rankings at a global platform. The deployment of AI in this regard has transformed the process into an intelligent, optimized, self-reactive, effective, efficient and automatic one, eliminating many processes that had previously been done manually, on paper and requiring significant resources. Although still far from equaling "Human Intelligence" as a whole and its complexity, AI is extremely effective in carrying out specific tasks, and its impact on the world and organizations is undoubtedly considerable (Blanchet, 2016; Lee et al., 2018; Wiljer & Hakim, 2019; Zhong, 2008).



Artificial Intelligence (AI) and Machine Learning (ML)

Mckinsey noted that AI solutions can automate many tasks performed by humans. And even though AI has long been feared as the "silent job killer "threatening to take away human occupations, it offers the possibility to automate time consuming activities and thus could allow human employees to shift their focus to more complex issues.

According to 2015 research by MCkinsey, 45% of the active individuals are paid to perform could be automated with already demonstrated technologies. What does this translate in to in terms of corporate productivity? The answer is more than promising: beyond labour cost savings, it could lead to increased output, smooth work flows, higher work quality and increased reliability. These technologies can analyse vast data in the shorter span and help business in informed decision–making and improve operational efficiency. It tremendously better customer experience by 24/7customer support.

ML algorithms have the capacity to optimise supply chain management along with conducting predictive analytics. These features help ventures identify new opportunities in the market and work on incorporating them into their setup.

AI and ML are two prime driving forces in the current business models like on-demand service and sharing economy. Moreover, they are transforming traditional industries, including finance, healthcare, and retail, with fast delivery services.

Disadvantages

Displacement: AI automation may lead to job losses in certain industries, affecting the job market and workforce.

Ethical concern: Ai raises ethical issues, including data privacy, algorithm bias, and potential use of AI technologies.

Lack of creativity and empathy: AI lacks human qualities like creativity and empathy, it is unable to understand emotion and produce original ideas.

AI system may not always be fully reliable, leading to distrust in their decision making capabilities.

Edge Computing

This technology is rapidly gaining momentum in the world of business as it positively impact the scenario. Edge computing involves the processing of data and analysing it closer to the data source instead of sending them to a cloud or a central data centre. The process decreases latency associated with enabling prompt processing and analysis of data and data transfer. Thus, minimising the risk of a possibilities of data breaches. It assist the business in gathering and processing data in real time, allowing them to take decision faster and in an informed manner.it has immensely impacted manufacturing industry, where downtime can be expensive, and production possibilities optimised for improved efficiency.

Edge computing is a massive saviour for business as it notably reduces their reliance on cloud providers and centralised data centres. These centres are not only costly but also pose the threat of cyber attacks. By locally processing and assessing data, businesses can have great control over their company's data and minimise breaches.

Disadvantages

One of the main challenges of the edge computing is the security and privacy of data and the devices.

Virtual Reality (VR) and Augmented Reality (AR)

VR and AR have been valuable technological resources for over a decade. While VR immerses users into a current atmosphere, AR is more about enhancing an already existing users environment both these technologies have significant impact on business as it extensively assist in employee training. With the assistance of VR, employee can be a part of simulation of various real life scenarios. This allows them to gain knowledge and practical experience without any risk. This is particularly beneficial in healthcare, aviation and manufacturing industries where safety can be a critical issue. on the other hand AR can be a powerful tool for on-job training as it reduces training time and makes the process much more organised.

VR and AR are revolutionary the ways in which companies market their service and products. These are providing an immersive experience to the customers that were previously impossible.

Robotic Process Automation

RPA is an innovative technology that streamlines rule-based and repetitive task by using software robots, popularly called bots. It is known to yield greater efficiency, productivity, and accuracy while minimising expenses. The bots can seamlessly automate tasks like invoice processing, data entry and report generation, giving scope to employees to indulge in other complex and value added operations the bots follows the predefine procedures and rules that mostly provide errorless results, unlike humans. This can decrease inconsistency in data processing, which has immense benefits in the finance and healthcare management sectors. RPA provides a competitive edge to business by automating routine task and helping focus on innovative aspects. This assist them in staying ahead of the rest and enhance agility and ability to adapt to canges.

Internet of things

According to Forbes and Intel's survey of 700 executives, 60%of enterprises are "leveraging their IOT infrastructure to catalyse new business opportunities" While 36% are looking into new direction for growth. Further, 63% have already started to implement IOT in order to deliver new or improved services directly to customers. Moreover, according this survey, more than 7 in 10 IOT leaders believe IOT helped them increase revenue by over 15%. The connectivity and data sharing opportunities can lead to efficient collaboration between employees, remote or near.

Disadvantages:

Too much dependency on technologies, lose life control, increased unemployment is biggest drawback of IOT.

Conclusion

The innovation process and global competitiveness is strengthening as an outcome of the adoption of various strategies by the corporate firms (companies and start-ups) to become AI –firms. Though the adoption of AI and other technology also poses several challenges. AI is transforming business operations in many ways, from automating routine tasks to improving decision-making and reducing costs. While there are challenges in

implementing AI solutions, businesses that invest in AI technology can gain a competitive advantage and stay ahead of the curve.

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