

**“Businesses who do not use AI in the workplace will fall dramatically behind those who do.” Discuss.**

*“AI can be our friend”* – Bill Gates

## Introduction

The rapid evolution and advancement of technology post-pandemic (Rao and Krishan, 2021) has ushered in a new era for businesses - Artificial Intelligence (AI). AI is swiftly reshaping industries, transforming tasks once only accomplished by human beings. It has many utilisations in businesses, ranging from simple genetic algorithms to sophisticated generative AI such as Large Language Models (see Figure 1 and 2).

Amidst this excitement, a critical question remains – is AI necessary for businesses to stay competitive?

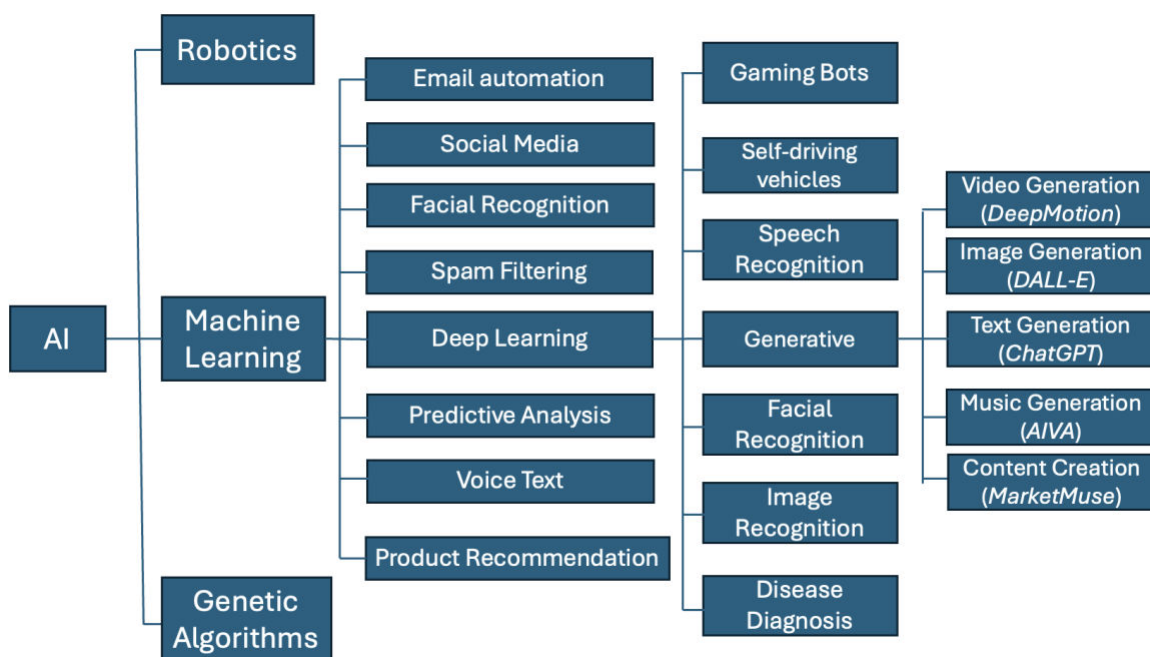


Figure 1 – Types of AI

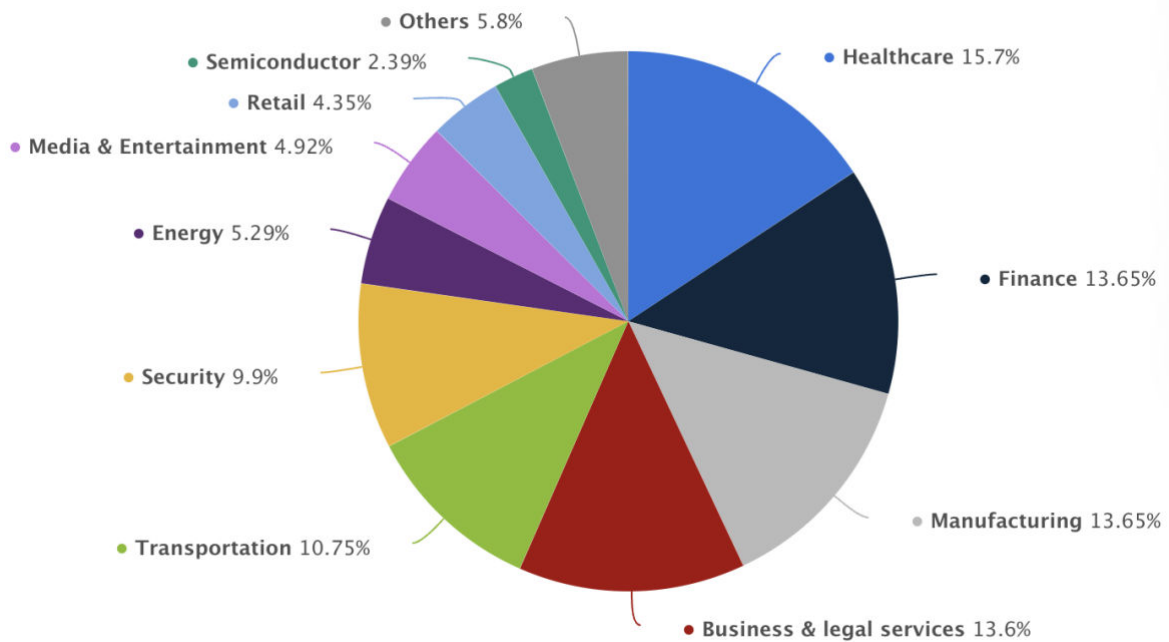


Figure 2 – Worldwide AI adoption rate by industries (Statista, 2023)

### **Benefits of AI in Businesses**

Businesses who embrace AI have a huge advantage in cost savings, efficiency, customer service, and overall competitiveness. According to Accenture (2023), generative AI can save up to 40% of employees’ time. This mirrors McKinsey & Company’s (2023) research, highlighting an 0.6% productivity growth per year with early AI adoption. The impact of cost-saving transcends mere profit generation. For instance, Google DeepMind’s (n.d.) AlphaFold project can predict protein shapes instantly using machine learning up to atomic accuracy, potentially saving the research industry trillions of dollars with enhanced precision.

Research suggests that financial services effectively utilise AI to enhance customer experiences. For instance, Teradata assisted Danske Bank in reducing false fraud positives by 60%, resulting in significant cost savings and heightened customer trust (Puiu, 2020). Financial service

chatbots provide real-time personalised assistance integrated with customer data insights. J.D. Power (2022) revealed that 78% of US bank customers would remain loyal to a bank providing personalised service, underscoring the importance of AI-driven initiatives in retaining customers compared to those not leveraging AI.

The Small Business & Entrepreneurship Council (2024) found that 75% of their surveyed small businesses in the US used AI tools to help with marketing, sales, customer service needs, and more, spending a median of US\$1,833. The services include email marketing automation, image creation for logo and branding material, social media management, chatbots for customers support and service, content writing and creation, audio-to text transcription, tools for predictive analysis, sales team support and consumer relationship systems, and language translation. 82% believe that AI tools help them effectively run and grow their business; 93% agree that AI tools save costs and increase profit.

### **Hinderance and Concerns of AI Adoption**

While it is true that not all industries require AI for success, AI can still offer valuable advantages, even in industries traditionally reliant on human skills and interaction. For example, in artisan craftsmanship, AI-powered tools and software, such as product analysis, can enhance creativity and precision without compromising unique craftsmanship brought by artisans. Hacoa is a Japanese artisan company that uses AI in their handmade wooden products to analyse characteristics of woods for increased precision and consistency, allowing them to produce high-quality products previously thought impossible to make (Würzburg, 2023).

Concerns about job displacement due to AI adoption (Menon et al., 2023) are valid, given the history of job losses in previous industrial revolutions (U.S Bureau of Labor Statistics, 2024). Proactive measures such as upskilling programs can help mitigate these impacts. For instance, the Cambridgeshire & Peterborough Combined Authority (n.d.) funds upskilling programs tailored to local employers' demands, countering the social impact of job displacement.

Moreover, while concerns persist about AI potentially diminishing human touch in interpersonal relationships (Della Longa *et al.*, 2022), AI can complement rather than replace human capabilities. By aiding in data analysis and streamlining workflows, AI frees up employees' time for them to focus on customer service. For instance, Sainsbury's utilises AI from Blue Yonder for various supply chain functions such as demand prediction, warehouse management, and waste reduction to improve environmental sustainability. This streamline operation allows employees to concentrate on enhancing customer service (dataIQ, 2020).

Cost and complexity are quoted as significant barriers to AI adoption in the UK, especially for small businesses with limited resources (Savanta, 2023). However, the emergence of generative AI solutions like ChatGPT and MarketMuse has provided free to inexpensive access to AI capabilities. Small businesses can utilise these platforms to generate and proof-read marketing content, effectively reaching out to customers while minimising marketing expenses. Additionally, government initiatives such as the UK's AI Opportunity Forum aim to help ease AI adoption through expertise and technology support (Department of Science, Innovation and Technology *et al.*, 2024).

Incidents like the Cambridge Analytica scandal (Weisbaum, 2018) have heightened concerns about data privacy and cybersecurity. The implementation of regulations such as the EU's

General Data Protection Regulation (GDPR) in 2018 serves as a framework for protecting individuals' data privacy rights and holding businesses accountable for responsible data handling practices. Additionally, businesses can exercise transparency in their AI initiatives by openly communicating their data collection and usage policies to gain trust.

Despite challenges related to AI's environmental impact (Strubell et al., 2019, see Figure 3), regulatory measures like the European Union's AI Act aim to mitigate these concerns. The AI Act mandates systems to have logging functions to measure energy consumption, resource use, and the environmental impact of product lifecycles (European Parliament, 2023). Conversely, AI also opens immense potential business opportunities in addressing economic, social, and environmental issues. For instance, Xcel Energy utilises machine learning to provide accurate wind forecasts, resulting in savings of US\$60 million for its customers and 250,000 tons of carbon emissions per year (TOMB2020, 2018).

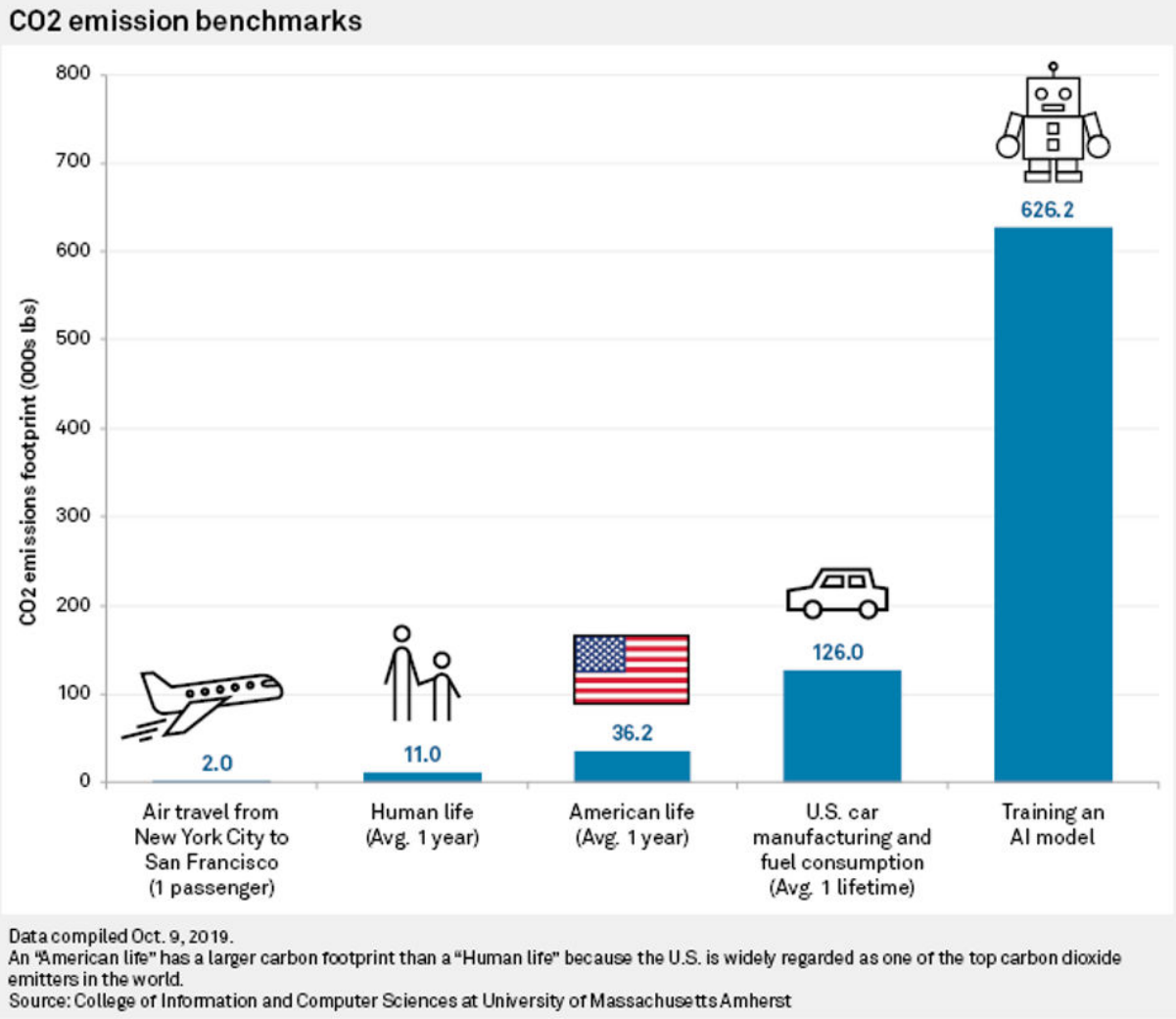


Figure 3. Compiled by Gow (2020), based on data from Strubell *et al.* (2019).

**Conclusion**

In summary, while not every business needs AI to survive, the evidence presented above strongly suggests that ignoring its potential will leave many falling dramatically behind their competitors. AI offers significant advantages in cost savings, efficiency, and customer service. However, it is necessary to acknowledge the challenges of job displacement and ethical considerations. To overcome this, businesses must adopt a proactive approach, which includes upskilling their workforce and prioritising responsible AI practices. By doing so, businesses can unlock the immense potential of AI and grow for many generations to come.

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