

Title: Impact of Artificial Intelligence on Businesses: from Research, Innovation, Market // Deployment to Future Shifts in Business Models

The article focuses on the transformative impact of emerging technologies such as the Internet of Things (IoT), data science, big data, cloud computing, artificial intelligence (AI) and blockchain. It is articulated via three-dimensional research to assess the impact of AI on business, focusing on AI research and innovation, the influence of automation and AI on organizations, and the shaping of business contexts with AI. The research is structured in several sections, with a literature review of the evolution of AI, an analysis of the state of AI research and innovation, identification of the strategic goals of leading AI companies and startups, an analysis of the global market, an exploration of the impact of AI on business contexts, and concluding remarks on directions for future research.

Companies such as NVIDIA, ORBCOMM, Microsoft and Facebook are prominently mentioned in calls for results for their AI-related initiatives. These companies are commercializing AI through APIs, deep learning libraries, chatbots and other products, improving their business value and augmenting their offerings with intelligent capabilities. As a result, the adoption of AI is reshaping business contexts, enhancing employee skills and driving paradigm shifts in a variety of industries. Global spending on cognitive and AI systems is expected to grow significantly, from \$12 billion in 2017 to around \$58 billion in 2021. Despite significant advances, challenges such as bias, trust, privacy and security still need to be addressed to fully exploit AI's potential. Nevertheless, the growth of AI in research, innovation and deployment offers opportunities for process and product innovation.

On the global market, major companies such as Google, Apple, Amazon, Microsoft and IBM are leading the AI revolution, as evidenced by their significant acquisitions of AI start-ups. Financial analysis reveals a steady growth trend in share prices, earnings per share, AI investment and net sales for these companies over the past decade.

Despite the rapid growth of AI, its impact is concentrated in a few countries, mainly the USA. This geographical disparity in AI development highlights the emergence of an "AI divide", where some regions benefit disproportionately from AI advances. This divide could exacerbate existing inequalities in education, income and living standards, underlining the need for broader global participation in AI research and innovation.

AI-powered intelligent agents, such as chatbots and virtual assistants, are revolutionizing customer interaction by enabling communication between humans and machines. These agents provide immediate, personalized responses to customer queries, reducing delays and errors. The adoption of AI in customer interaction is set to increase dramatically in the coming years, with forecasts indicating that AI will manage a large proportion of customer relationships without human intervention by 2025. While this transformation may reduce employment opportunities in traditional customer service functions, it also creates new job opportunities in AI-related fields.

Overall, the adoption of AI technology is driving significant transformations in business contexts, offering opportunities for improved efficiency and innovation while posing challenges related to job displacement and skills gaps. Efforts to address these challenges and capitalize on the opportunities offered by AI are essential if organizations are to thrive in a changing business landscape.