



AI-Driven Economic Transformation: Strategy Analysis of Multi-industry

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Abstract. This paper explores the ongoing structural changes in business from formerly manual modality to currently artificial intelligence's modality in different industries. The research in this study showed how businesses try to adapt the growing AI environment and develop their strategy to earn more profits. Additionally, some drawbacks of using the AI to expand cooperate scale will also be shown and explained in the evaluation part as well. The various causes about why the AI is becoming dominant in many industries and countries will be listed and analyzed as follows, including the reduction in cost of labor force and the high efficiency in productivity. The paper shows several specific instances and scenarios about some major cooperations and platforms which have developed or are developing new commercial structures and tactics for facing the coming AI era in worldwide scope. At the end of the paper, some prospects will be proposed and put forward, which can illuminate the main idea of the article.

Keywords: Artificial Intelligence, Economic Impact, Global Competition, Enterprise Transformation, Commercial Strategy.

1 Introduction

Back to the 1950s, the history of the beginning of the artificial intelligence program indicates that the earliest successful AI program was written by Christopher Strachey who was the director of the Programming Research Group at the University of Oxford later. This initial test for AI program was for completing the game of the checkers and it was held at the University of Manchester on the prototype – Ferranti Mark I. This model was also used to help forecast election results, calculate wages, and produce actuarial tables, among other things [1].

Also in 1952, Strachey programmed a lover letter generator for the Ferranti Mark I as well. Through his entire life, he was dedicated to denotational semantics, programming language design and computer time-sharing, which lays a better foundation for later fast development in emotional processing of AI.

According to these early groundbreaking milestones, the AI was becoming more and more efficient and comprehensive in logical reasoning and problem solving. From the From the initial sight of the human beings, the total purpose of developing AI was for

completing multiple tasks, which stimulates more and more innovative thoughts and advances in technology until now.

In recent years, the global penetration of AI is ascending dramatically. One side, more and more companies are facing the actual problems and the demanding situations about rising operating costs driven by many causes including increasingly scarce resources and geopolitical challenges. On the other hand, more advanced and mature AI enterprises and platforms are emerging to the global market.

Two major reasons explain the current international situation and why companies are being forced to transition to apply AI into industries, causing the AI era to come acceleratingly [2].

This paper will explain in detail some of the phenomenon that occurs in how different kinds of companies try to survive and transit their commercial structures successfully in this AI era, focusing on the existing cases among several major countries and providing some development suggestions for individuals and society in terms of the future trends by analyzing data in the past.

2 Research

The research in this essay aims to first identify the share of AI in various industries, and the contribution rate of GDP involved in each industry, including research in globally major high-tech companies and some of currently popular platforms and services. Aiming to achieve the authenticity, data of all cases of businesses involved are considered in recent five years from 2020 to 2025.

2.1 OpenAI

OpenAI, the one of the largest American artificial intelligence organizations, aims to develop and achieve a highly autonomous system called as the artificial general intelligence (AGI) that outperform humans at most economically valuable work. The mission they claim is all for benefiting all humanity by above ways. So far, OpenAI has released three main platforms and services including ChatGPT model, Sora model and API Platform. All AI structures are used in different field and commercial issue [3].

Broadly speaking, the ChatGPT is mainly used for asking language model questions and helping human with things like writing, emails and code. According to the latest broadcast in August 2025, ChatGPT-5, the so-called smartest AI model in the world, is released by OpenAI and is aimed to help the individual and the business deal with a variety of daily issues.

Once this conversational AI model is prevailing, in the future, it may ascend the risk of replacing a few occupations which formerly need the human labor. In terms of ChatGPT model, this robot is formerly well-trained and connected to the most extensive database in the world, which means the AI model can continuously update its understanding and data from day to day. The efficient search function and convenient

instruction for use make educational industry suffer from many potential challenges [4].

As for the classically developed country—the United States, the updated data reporting completely indicates the domestic circumstance of unemployment in relative industry.

As can be seen in figure 1, from the comparison between two percentage of U.S. teens ages 13 to 17 who say they have ever used ChatGPT to help with their school-work in 2023 and 2024, the share of teen who say they use ChatGPT for their school-work has risen 26% in 2024, which is up from 13% in 2023. This trend showing the American teenagers are depending on the AI tool may forecast the future tendency using the artificial intelligence in a large scale in the educational industry. Honestly, the whole educational system will change drastically, provided that the penetration of AI happens quickly and inevitably. At that time, more and more educational institutions will stick in the dilemma about whether they should adapt the AI or not. According to the former, these institutions need to cost much time and effort to build their base of AI network or platform in advance, which is hard for most of the conventional schools. As for the latter, to those institutions especially the private one, they may suffer from the circumstance of unemployment because they may not be likely to attract the outer investment and welfare so that they cannot afford or stand the wages of the faculty.

Additionally, even though they can afford most of the payment of teachers, these private institutions may dismiss many teachers because these teachers cannot handle and master the AI tool and skill, resulted from the school's previous choice to not build an AI system so that the teachers cannot acquire the full trainings of using AI [5].

Also, the teenagers' mindset for using the AI tool is also thought-provoking. According to the data, although only 28% of teenagers say it is not acceptable to use AI tool for their academic purpose, just over half of teens reckon that it is acceptable to use ChatGPT to deal with their math problems or searching essays. The data indicates that teens are far more likely to say it is acceptable to use the AI for research then for essays.



Fig. 1. The percentage of U.S. teens ages 13 to 17 who think it is whether suitable for students to use ChatGPT for each purpose.

(Data source: <https://complexdiscovery.com/deepseeks-disruption-a-new-era-in-global-tech-competition/>)

2.2 DeepSeek

To another case, the Deep Seek model, one of the burgeoning AI tools emerges from the China recently, causing the Chinese new wave of AI and more severe worldwide competition.

This time should be considered not from the national situation, but from the point of view of global multinational corporations. As can be seen in figure 2, to compete with other existing chatbots in the world, deep Seek plans to build their own status in Chinese AI market even the global AI market. Surprisingly, deep Seek claims to have developed its platform for a paltry \$5.6 million. However, the OpenAI spent nearly \$100 million to create the ChatGPT. From the aspect of the costs, the Deepsea proves that high-tech companies can largely cut down the operating the cost and provide relatively cheap services to the customers. This claim or action undoubtedly brings about many dissatisfied remarks and voices from other AI companies, which mean the deep Seek seriously affects their revenue and disrupts the rule of the market from their sight [6].

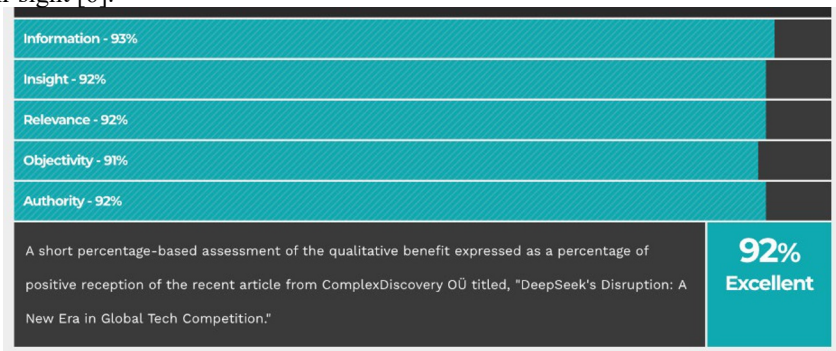


Fig. 2. The content assessment of DeepSeek's performance.

(Data source: <https://complexdiscovery.com/deepseeks-disruption-a-new-era-in-global-tech-competition/>)

This clearly indicates the content assessment in each aspect of the functions of AI, which shows the Deep Seek is comprehensive in many areas to consideration. This case, from the insight of the side, shows that the rising demand of AI for human stimulates more and more companies to emerge and surprise people by providing efficient and cost-low AI model to occupy a place in global market.

2.3 Aleph Alpha

Other than the Chinese and American AI models in the world, a German company named Aleph Alpha was founded in 2019 and claiming to invent and announce their AI model—Pharisaism. In Aleph Alpha's thought, their mission is to research and build sovereign, human-centric AI for a better world.

In this case, Aleph Alpha considers more about the sovereignty and innovation as their core values, which ensures the technological sovereignty in the AI era for the

world's best enterprises and governments. To this circumstance, Pharisaic guarantees every individual or official high level of the trustworthy AI applications and transparent nature compared with other companies or AI platforms. That is, AI becomes more essential and necessary in more areas and fields relating to the global market and commercial contract.

The goal is not to replace people, but to empower them by making design choices that give humans control over technology [7].

In conclusion of these cases happening around the world at this very moment, they state the fact that the AI tool not only is replacing some of the specific industry or career but also arouses the international competition among several major countries and continents, which indicates the inevitable trend for AI to develop rapidly at an astonishing rate currently and in the future.

3 Discussion

3.1 Corporate Spontaneous Change to Adapt and Take Advantage of AI

By the research discussing about how several companies bring and guide the AI model to the human society, we have known that some of the industries or careers are facing the challenges. Also, the AI this popular topic continuously results in the fierce commercial and business competition in overall world. Just like some of the AI experts say, the basic hope of people in this era is not allowing the AI to completely replace the human force but understand how to adapt and use by some specific means [8]. Hence, this part will dive deep into how the varied business try to adapt the AI by different ways. Starting with analyzing some detailed strategies which can be used by business, these can be better reckoned to explain how the corporate transformation of the inner structural change can be successful.

AI not only changes what is possible but also changes the position of the complexity living in a business. In this theory, tasks once handled by the individual contributors and decision-making at the execution level can be managed and even delegated by the AI agents now [9]. Although this sounds attractive and appealing, there are still some of the drawbacks existing. The responsibility of outcomes made by AI will become vague and the teams of the firm may duplicate the efforts by AI without understanding it.

Organizational Restructuring. From these, reorganization seems to be necessary and feasible. Building some roles of integrating AI strategy in the management, business can be guided by these professional managers who decide the type of tactics and make the decision in some event.

Establishing the cross-departmental collaboration team, putting some AI experts and data scientists in other departments working on the actual business can make the AI quickly integrate into there instead of being isolated in the IT department.

Flexibilization asks the business to put the AI into their managing and data processing tasks so that AI can automate these. At this point, the organizational hierarchy will decline, which means the strategy highlights the flexible programs and operation in small groups.

Optimization in Flow and Decision-making Mechanism. By driving the decision by much database, business needs to embed the mechanism of data governing, which guarantees the data collection is secure and legal. This supports the accuracy of AI analyzing.

Assisting decision-making committees by AI, introducing the AI simulation is used as the references of making decision. But at the same time, human ethics and risk guarding mechanisms are kept.

Processing reengineering aims to use the AI to reconstruct the core processes including customers, supply chain, finance and R&D, which not only easily replace the labor force but also redesign a more effective business model.

Reshape of Talent and Culture. Due to the unstoppable era of AI, more businesses need to realize that the capability of using the AI tool is necessary in most of the circumstances for their staff. Business needs to train employees at all levels and make them understand and use AI tool correctly rather than forming the –"AI Island".

Innovating the new work positions such as Prompt Engineer and AI monitor can greatly combine the AI and human labor force together to cooperate.

Transforming from experience driven to experiment driven, this can tolerate the mistakes in a small scale, which is optimized by the AI continuously.

3.2 Varied Industries Exploit AI to Expend Their Scale

As the key concept of the business economics, a firm's main purpose is to decrease the total cost and enhance the total revenue to earn more profits during manufacturing and operating period. In this AI era, more and more industries which many not directly relate to the AI technology should consider their future operating trend and means to earn money. In this branch, we will think deeply about what different industries should acquire and achieve to meet the future trend.

To the manufacturing industry, it should be emphasized detailedly about its background, which can help to explain how the past global economic form transforms to current economic form. Back to the time of Industrial Revolution, at that time, the manufacturing industry was the first time to emerge out of the human sight. This means of basic economy was widely considered to be one of the most astonishing turning points in the human history. It changed the basic ideas of the human about how to produce and what should be produced from individually manual production to factory production. Not surprisingly, this period is also known as the Age of the Machines.

From this case, human firstly changed their means of production, which enlightens the people about many thoughts. Because of previous experience, the currently new

means of production is rapidly converted from industrial economy to a new economy-thinking economy which has seemed to be the root of the AI [10].

In the process of production, the AI makes the accessibility to forecast and predict to maintain and control the quality, which can reduce the risk of machine halt and rate of inferior products. According to the update of the product, implant the AI into the machinery and conventional household appliances. From the perspective of generating revenue, application of AI can reduce the manufacturing cost including repairing fee and increasing rate of superior products. Additionally, the added value may occur on some automated goods, causing a higher sale price.

To the retail industry, personalized recommendation and smart pricing are both excellent strategies for firm. These have been verified by some multinational companies such as Amazon and Taobao. AI also can assist to form the advertising content such as the advertisement, short video and poster. From the side of making profits, enhancing the conversion rate and reducing the operating cost such as human customer can simultaneously help this type of firm to exploit AI.

To the financial industry, AI can intermediately monitor a transaction to reduce the loss on bad debts. Providing personalized investment advises for clients is also can be targeted by robot. Financial content formed by AI concludes the automated report and researching analysis. What makes the industry earns the profit, the tactics would be the expansion of new customer group and derivation of the newly financial products such as intelligent fund.

To the medical industry, high accuracy of scanning the inner organs of the patients can greatly improve the successful rate of the operation. Researching the new medicines by AI can be accelerated to come into the market, which brings about massive patent profits. Some of the healthcare companies may base on the AI to develop the wearables and some subscription services.

To the entertainment and media, there are many apps having the AI assistance to form videos, music and games' characters nowadays. By means of precise audience analysis, the AI can automatically help companies to adjust the content. And some of the virtual idols can attract young people so that the firms can make more revenues from this age of group. In terms of enhancing sales, the manufacturing cost of using labor force will diminish drastically. In addition, newly commercial model considers the structure of sum of virtual IP and the fan economy.

To the last industry considered—the energy industry, automatic driving system gives rise to huge demand for people who cannot drive personally. Considering this trend, some new energy car companies can advance their own network and operation system to meet the market. As for the logistics industry, AI optimizes the delivering path and decreases the delivering costs. For profit point, costs can be largely decreased because the fuel and energy consumption will descend in the long-term.

4 Conclusion

After analyzing what strategies business can use to make profits, there are still some drawbacks opposing the feasible actions and means made by some firms.

First, considering the early cost is crucial for every type of the business. For instance, just the manufacturing industry, this needs many highly expensive inputs including sensor, data collection and model training in the short-term. Usually, the small firms may lack the financial backup so that their database is insufficient, causing the effect of AI will be weakened.

Secondly, homogeneous competition will exist in everywhere because almost all companies use the AI model to recommend and operate so it is hard to form differentiation among them. This may always happen in the retail trade and E-commerce.

Thirdly, the virtual and real content can be easily confused by overusing the AI, happening in the media and entertaining industries most of the time. In this circumstance, some virtual idols or anchors may likely be spread some fake news.

Conclusively, to wrap up this essay, the main discussions are about the retrieval of relevant information related to some major companies researching the AI model and analysis the some of the classical industries about how they should exploit the AI to adapt this new era and make turnover from it.

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