

Research on Artificial Intelligence Platforms with the Possibility of Application in Diplomatic Activities

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Abstract— Diplomacy and diplomatic relations, which are an important means of conducting political relations between states, despite being subject to strictly conservative rules, are also influenced by the development of technology. Just as the invention of the telegraph triggered its widespread application in diplomatic correspondence, the development of digital technologies contributes to the improvement of channels and the reliability of communication, so the appearance of artificial intelligence will have an impact on diplomacy and diplomatic relations in general. The report analyses the regulatory framework, explores artificial intelligence platforms with opportunities for application in diplomatic activities and concludes with some conclusions about the risks and negative consequences of its use.

Keywords— AI platforms, Artificial Intelligence, Diplomatic relations, international relations, national identity, global and international security.

I. INTRODUCTION

Artificial intelligence leaves an imprint on almost every aspect of our daily lives, both personally and professionally. Its influence is becoming more and more tangible for the businesses, and the technologies that have emerged since the advent of the first models are becoming more and more numerous.

And it will continue to change its appearance. AI tools lead to productivity improvements, process transformations, cost reductions, and faster and easier identification of new growth opportunities.

In the article, we will show a few key examples that show how the business, respectively the diplomatic service,

can benefit from AI, regardless of the sector in which it operates.

A. The effect of AI on the IT sector

Artificial intelligence has already taken an undeniable role in speeding up the workflows of IT specialists. Employees in the field use AI in development, but not only.

According to data from Statista for 2024, developers use AI tools for the following activities: writing code (82%), searching for answers to questions (67.5%), debugging (56.7%), documentation (40%), and more. [1]

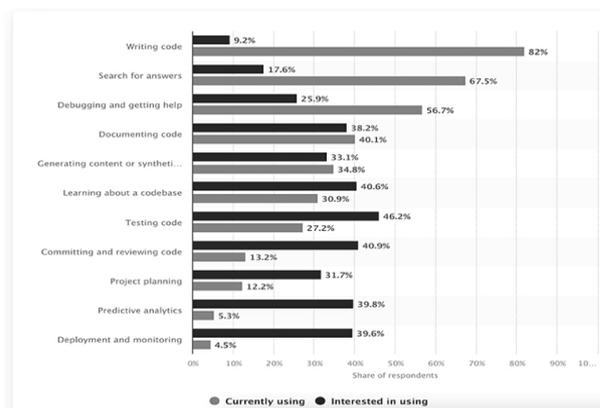


Fig. 1. Graph of programmers using artificial intelligence tools.

With the help of AI tools, data analysis is carried out, tasks and processes related to cybersecurity are optimized, as well as the management of the IT infrastructure and its maintenance.

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All of this is possible thanks to AI's ability to analyze large volumes of data in real time. That is why people are able to act faster and be more informed.

In addition, the models we all have access to are also an opportunity to create "smart" applications. Thus, they can not only be controlled remotely and turn off heating when certain degrees are reached, for example, but also learn and make predictions so that they work autonomously.

B. Marketers and media experts, with application in public diplomacy

AI is already transforming the way we do marketing. With its help, content can be created much faster, advertising campaigns can be personalized and forecasts can be reached more efficiently based on the analysis of activities and the market.

The top 3 activities that marketers improve with the help of AI rank web content with the intention of searching for users – 84% of respondents to a Statista survey rely on these tools to improve the user experience, and 74% use them to increase their ranking in search engines. [1]

AI tools now have a place in headline writing, speeding up the content creation process – textual and visual - and helping more and more people claim a digital presence. However, this does not replace creativity and strategic approach in both marketing and media content, but only supports them.

C. Designers' work improved with AI

The market for generative AI in the field of design in 2023 reaches just over \$550 million. By 2032, it is expected to reach nearly \$8 billion, i.e. to grow by over 34% per year. [2]

This accelerated forecasted growth is due to the capabilities of generative AI to serve as a personal assistant in generating ideas, creating exemplary designs and drawing inspiration, there by significantly accelerating the design process.

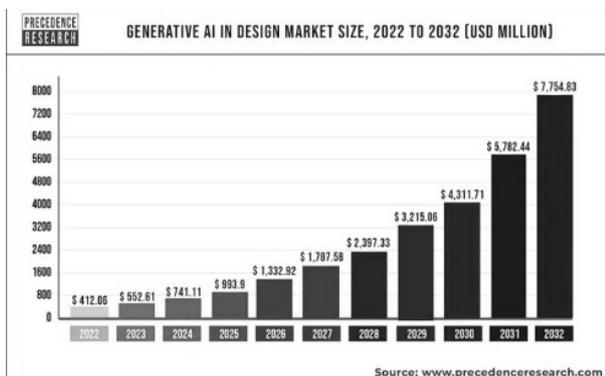


Fig. 2. Graphics of web designers using Artificial Intelligence.

In turn, this enables designers to work with more customers and gain a better standard. This applies not only to graphic, but also to web designers.

A study by hub spot shows that 97% of web designers have already used AI tools for the following tasks: generating images and media assets for sites (58%), creating web pages design (50%), experimental strategies and design elements (49%), improving designs (43%), tracking design quality (40%), auditing user experience (20%). [3]

This data undeniably proves the sensitive role of AI in the areas of design – not for the purpose of replacing designers, but to improve their efficiency.

By robotizing and automating processes, manufacturers can reduce the amount of repetitive tasks that are performed by humans, can improve production process schedules, and can even implement predictive and anticipatory maintenance, after analyzing historical data, to ensure a continuous and seamless production process.

We also present a few other areas where AI supports work in them:

- Areas such as AI-supported healthcare and finance.
- The effect on AI-supported education.
- The future of AI-supported call centers.

The implementation of artificial intelligence in all areas of activity is inevitable. This is due to the fact that AI tools are extremely affordable. They are already part of our daily lives.

However, their use should not be an end in itself. When it comes to the implementation of Artificial Intelligence, there are several mandatory steps [4]:

- Identify the goals that the business wants to achieve with the implementation of AI.
- Analysis of current processes and identification of opportunities for optimization and automation.
- Selection of appropriate tools capable of performing the tasks to which they apply.
- Limited testing of AI solutions to validate the usefulness of their integration.
- Training and adaptation period for the team, which must learn to work with the specific tools, and to adapt to the modified processes.

II. MATERIALS AND METHODS

A. Tools for researchers based on Artificial Intelligence

As Artificial Intelligence grows, the scientific community is taking advantage of advanced technologies that are changing the way research is done and scientific sources are accessed. In this text, we will look at some of the main applications of AI in research and the search for scientific resources.

- A large language model (LLM) is a type of Artificial Intelligence (AI) program that can recognize and generate text, among other tasks. LLMs are trained on huge data sets - hence the name "large". LLMs are built on machine learning:

specifically, a type of neural network called a transformer model. [5]

- Claude - is a chatbot with Artificial Intelligence (AI) generation and a family of large language models (LLM) developed by the research firm Anthropic.[6]
- Generative AI for InDesign — Leading page design and layout tools for desktop and digital publishing. Publish everything from books and brochures to digital magazines, ebooks, and more. [7]
- The biggest benefits of using AI for knowledge management include easier knowledge sharing, a personalized user experience, and the ability to save time. Some of the best use cases of AI for knowledge management include setting up an internal search and retrieval system, creating content with a customized LLM model, and monitoring issues. Some of the best AI knowledge management tools on the market include TeamGPT, Shelf, and Document360 due to the training capability. [8]
- Consensus - A search engine that uses Artificial Intelligence to automatically extract and condense research findings. [9]
- Copyleaks - This Artificial Intelligence assessment tool can quickly and accurately analyze tens of thousands of standardized tests at the state, national and university level without bias or external influences. [10]
- IRIS.AI - Comprehensive Research Processing Platform: smart search and wide range of smart filters, reading list analysis, automatically generated abstracts, autonomous data extraction and systematization. [11]

B. Platforms based on Artificial Intelligence used in diplomatic activities

Artificial Intelligence is starting to play an increasingly important role in diplomatic activities, using different platforms for data analysis, communication, security and decision-making. While many of these technologies are still in the early stages of development or pilot phases, they show significant potential for improving diplomatic practices. Here are some AI platforms and technologies that are already used or could be used in diplomatic activities:

a) IBM Watson

IBM Watson [12] is one of the leading Artificial Intelligence platforms that can be used to process large volumes of data, analyze text, and retrieve insights. Watson's technologies are able to analyze the content of documents, media materials, and other sources of information in real time, helping diplomats get quick and accurate recommendations for action. Possible applications are the analysis of political events and trends and the possible prediction of future crises, especially

b) Google Cloud AI

Google Cloud [13] offers a set of powerful AI tools for natural language processing (NLP), machine learning, and

big data analytics. These technologies can be used to collect and analyze information from a variety of sources, including news platforms, social media, and official sources, to help diplomatic officials understand current events and respond in a timely manner.

c) Microsoft Azure AI

Microsoft Azure [14] offers a wide range of AI services, including data analytics, machine learning, and natural language processing tools. Possible applications are the construction of chatbots to improve communication and service to citizens on consular matters, to analyze political and economic data and to possibly recommend important events in the country of residence in the interest of diplomatic activity.

d) Palantir

Palantir [15] is a big data analytics platform used by government and military institutions to analyze and interpret information. In diplomatic activities, the platform can be used to integrate data from different sources and retrieve insights that can support decision-making in complex international relations. The platform allows the analysis of geopolitical risks and crisis forecasting, as well as the collection of intelligence information from various open sources.

e) Kai by Kasisto

Kai [16] is an Artificial Intelligence platform specializing in chatbots and conversational systems at this stage mainly in the financial sector. This technology is useful for creating digital assistants that can answer questions and provide information in real time, which allows for automated consultations related to travel, visa issues, providing advice and information about countries, etc.

f) C3.ai

C3.ai [17] is an AI-powered enterprise solutions platform that offers data analytics, machine learning, and process automation tools. In diplomacy, this platform can be used to model different scenarios and optimize diplomatic strategies by analyzing global trends and events.

III. RESULTS AND DISCUSSION

A. Possible areas of application in diplomatic activities

Artificial Intelligence (AI) is an increasingly important tool in many areas of public life, and diplomatic activity is no exception. In recent years, AI technologies have provided new opportunities to increase the effectiveness of diplomatic efforts, both in managing relations between countries and in strategic decision-making. Although diplomacy obeys strictly conservative norms and has traditionally relied on the human factor for analysis and decision-making, AI can play essential roles by facilitating and speeding up processes, making them more precise and efficient. In this context, we can look at several main areas in which AI can be integrated into diplomatic activities [18]:

a) *Analysis of normative documents and information about important events*

Diplomacy usually requires a quick reaction to changes in legislation and changes in the situation in individual countries. There are a huge number of documents, news, reports and public statements that require careful analysis. Often these data can be confusing or contradictory. By using AI, diplomats can extract key data and use it in the decision-making process. Platforms based on AI can identify key phrases, terms and sentiments in media releases and rank them by importance or relevance and thus provide guidelines for the response of diplomatic staff. Platforms can be used for social media monitoring and press.

b) *Forecasting of international relations*

Artificial Intelligence can be used to analyze trends and patterns in international relations. [19] By processing large volumes of historical data, AI can predict to some extent the future behavior of certain countries or international organizations to be used to make informed strategic decisions. Platforms can also be used to monitor economic trends and forecast possible economic crises in certain regions, thus drawing up strategies for the prevention of migrant flows.

c) *Optimization of diplomatic negotiations*

Diplomatic negotiations are a complex set of complex interactions where multiple interests must be taken into account and compromises sought. Artificial intelligence can be used to optimize these processes and assist diplomatic officials by simulating different scenarios and recommending strategies. AI, by analyzing past negotiations, social media reactions, and public attitudes, can predict the actions of negotiating parties

d) *Supporting public diplomacy*

Public diplomacy is critical to shaping the image of the state on the international stage. AI can help manage public relations by analysing media and public opinion responses to diplomatic initiatives and negotiations and thus assisting diplomatic staff on approaches to improving the image of the state. AI platforms can also be used for the automated generation of diplomatic and press releases, which can be adapted to the public's reactions;

e) *Automation of administrative and operational processes*

In addition to a representative and negotiating function, diplomatic officials have administrative and operational functions that fill most of their daily lives. AI can automate the processes of processing, categorizing, sending and storing documents. AI can be used to automate the processes for processing visa and consular information, verify data, and provide an automatic response to frequently asked questions, such as grounds, document requirements, etc.

In conclusion, artificial intelligence offers numerous opportunities and solutions for modernization and optimization of diplomatic activity - from prediction of

international conflicts to optimization of diplomatic negotiations and automation of routine processes. While AI cannot completely replace human judgment and intuition, it can serve as a powerful tool to support decision-making, speed up processes, and provide new opportunities for innovation in negotiation processes.

B. *Possible risks of the use of AI in diplomatic activities.*

Artificial Intelligence provides significant opportunities, but at the same time it carries serious risks that can test the security, ethics and efficiency of diplomatic activity. [18] These risks can not only affect the quality of decisions made, but also violate basic principles of international law and international relations. Possible risks can be defined as:

a) *Suggesting incorrect or unethical solutions*

AI systems generally rely on algorithms that make analyses and predictions based on available data. The problem arises when these algorithms fail to capture important social, cultural or moral nuances that usually play an important role in diplomatic relations. In diplomatic activities, complex and sensitive issues are often encountered that cannot be solved by mathematical algorithms and models alone. It is possible that the solutions proposed by AI ignore human and moral values, violate human rights and misinterpret cultural differences and thus generate and later implement diplomatic strategies.

b) *Prejudice and discrimination*

One of the serious risks of the use of AI in diplomatic activities is that the algorithms on which they are based may contain built-in biases if the data on which they are trained contains inequalities or stereotypes. The basic systems train their models on large volumes of historical data, which may include prejudices against certain countries, ethnic and religious groups. This can lead to an underestimation of a particular country or region, which can be reflected in the negotiation process.

c) *Transparency and clarification of decisions*

Many of today's AI models, especially those based on deep learning, are "black boxes," meaning that even algorithm developers can't always explain how the system arrived at the specific solution. In diplomacy, where transparency and logic are crucial, this can be a serious problem.

d) *Security threats and cyber attacks*

AI systems in diplomatic activities are vulnerable to cyber attacks and manipulations. "Malicious actors" can attack and compromise processes related to diplomatic communication and thus manipulate diplomatic relations or "falsify" recommendations or misinform analysis systems, which can lead to the wrong processing of sensitive data.

e) *Dependence on technology and diminishing human judgment*

Excessive reliance on AI for decision-making can lead to a reduction in the involvement of the human factor in

decision-making processes. This is especially dangerous in diplomatic relationships that require intuition, emotional intelligence, and judgment that AI cannot provide. As advanced as AI is, it cannot and does not possess the human ability to adapt quickly to critical and unpredictable situations common in diplomatic activities.

f) *Abuse of AI to manipulate public opinion*

Artificial Intelligence can be used to manipulate information and public attitudes by creating fake news, disinformation, or targeted impact on social media. States or non-governmental organizations can use AI to automate the creation and dissemination of fake news, which can distort public perception of diplomatic activity and lead to negative effects on international stability.

g) *Need for regulation and standardization*

One of the most serious risks is the lack of clear international standards and regulations on the use of AI in diplomatic activities. [20] This can lead to differences in the way AI is applied between different countries, which creates the potential for unequal use of the technology. A serious problem is the lack of a legal frame work for the use of AI in diplomatic activities, as well as differences in the regulations and standards for data processing.

IV. CONCLUSIONS

While creating economic opportunities, there are also significant risks. Although AI technologies have the potential to improve people's lives and services, they can also be used maliciously. One of the most important risks is the question of who will be responsible for any damage caused by shared information about new technologies. The growing role of technology companies and new issues focused on AI technologies are among the important issues of diplomacy in terms of the risks of its use. Currently, artificial intelligence has various applications in the military field as well. Its use in this area also has implications for national and international security, which is one of the important issues of diplomacy. Thei ncreasing development and use of autonomous drones, drones in armed conflicts, has an impact on the security architecture of countries, which can also lead to a change in the balance of forces and hence lead to security risks. The means using artificial intelligence are mainly produced by private companies. For this reason, non-state actors, in particular terrorist organisations, also have access to them, which is a risk to national and international security. In this regard, the use of Artificial Intelligence in the military field is becoming one of the important issues for diplomacy. Today, this problem is being discussed at the UN level, trying to regulate the use of armed drones using Artificial Intelligence technology.

The following conclusions can be made from the report:

- Developments in information technology and the widespread use of Artificial Intelligence will also affect the diplomatic service. This calls for an expert assessment of possible application activities, definition of a regulatory framework

and the development of a methodology for its application.

- A wide range of experts and professionals, both IT and diplomats with extensive experience and practice, should be involved in defining the framework and methodology for the introduction and application of Artificial Intelligence in diplomatic activities.
- In order to create a unified international framework, the problem of introducing Artificial Intelligence in diplomatic and intelligence activities should be discussed not only in scientific forums but also at the highest level - UN, NATO, EU, etc.
- In order to minimize the risks of the use of AI, awareness campaigns and training of employees should be conducted on the risks of misinformation and manipulation, leakage of sensitive information, cyber-attacks, etc.

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