

# AI and Machine Learning in International Diplomacy and Conflict Resolution

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## Abstract

The role of incorporating Artificial Intelligence (AI) and Machine Learning (ML) in International Diplomacy and conflict resolution has the ability to revolutionize the current processes. The current paper aims at reviewing the future responsibilities of these technologies in improving diplomacy and forecasting wars. Thus, scrutinizing selected successful cases of AI use in diplomacy, and the possibilities of ML in conflict areas. The paper also covers the ethical issues and the possible developments of Artificial Intelligence in the sphere of diplomacy of various states. The conclusions stress the essential role of AI and ML in creating a more favorable external environment in order to reduce conflicts.

**Index terms:** AI, Machine Learning, International Diplomacy, Conflict Resolution, Ethics, Global Diplomacy

## I. INTRODUCTION

Interests of other international relations, including conflict possibility, solution, prevention, and control in the past have been regarded as utilized techniques of human negotiation feeling and nonwritten diplomatic experience. These fields are likely to have a massive evolution due to the technological growth in the development of Artificial Intelligence (AI) as well as Machine learning (ML). They introduce unique features in terms of data management, analysis and modelling, and decision support for diplomacy and conflict management.

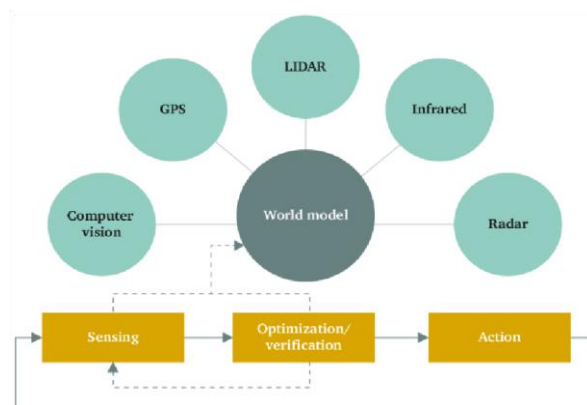
Another advantage of using AI in analysis involves the sheer quantity of data that can be processed by the AI facilitates the identification of structures that might be difficult to follow for a human analyst. It is highly useful in the sphere of international relations since these interactions are often quite complex in terms of their geopolitical background. For example, AI can identify certain social media posts, upcoming economic trends, and past occurrences and give possible future conflict indications and prevention strategies. Furthermore, the use of AI in the decision-making processes can be extended as

diplomats have continuous access to the AI system which offers actual data and potential recommendations derived from the structural analysis of the international politics.

AI's subfield, Machine Learning, compliments these functions through the capacity for predictive analysis. The data relating to conflicts and tensions can be fed into an ML model and the agency can predict new tensions and conflicts. These predictions are useful for diplomatic moves, and if politicians analyze the factors which lead to conflicts, they can prevent them from getting worse. Also, of note, ML algorithms can always learn from new inputs and hence is always updated to provide accurate results.

Nonetheless, implementing of AI and ML within diplomacy is not without certain difficulties. Some challenges involve ethical issues and these include; bias in algorithms, privacy issues, and the adverse use of technology. Therefore, it is paramount to develop and implement properly rounded ethical standards and regulation regarding these technologies that can prevent or, at least, minimize their abuse. This paper seeks to identify new directions of discussion regarding the uses of advanced AI and ML technologies in international diplomacy and conflict resolution. Here we will look into further details of these technologies in use today, explore real life examples of implementations, talk about the ethical issues, and last but not the least the prospects for development of such technologies. Thus, through presenting the non-exhaustive vision of the given subject and exploring the main prospects for the application of AI and ML in diplomacy, this paper aims at shedding the light on these technologies' value in the pursuit of the more cooperative international relations.

In the following sections, the reader will find information on the role of AI in interrelations, the use of ML in conflict prediction and prevention, the ethical issues in these interconnected fields, and potential future perspectives of AI in diplomacy. In doing so, we seek to highlight how AI and ML offer a promising source for constructing the future of international relations and diplomacy for conflict solving.



**Figure 01: AI model/structure in the Relevant Field of International Diplomacy and Conflict Resolution**

## II. LITERATURE REVIEW

Artificial Intelligence as a concept applied to international relations is still emerging as an ideal that holds promise to revolutionise diplomacy work and conflict management. Big data facilitate the detection of numerous patterns and trends, which are vital for comprehending the contexts in which AI operates internationally. As noted by Bhaso Ndzendze & Tshilidzi Marwala, AI has a radical effect on the international relations theories as it makes some of the processes easier and at the same time makes

them more complex, provides new ways of looking at geopolitics (Ndzendze & Marwala, 2021).

The development of the ML models has displayed tremendous ability in predicting and solving conflict issues. These models use previous conflict data in order to look for indicators that help define when an outbreak of violence may occur, permitting the planning of preventive measures. For instance, Chadeaux (2014) unveiled how news digests prevented the chances of war making through seven days advanced notice, thereby improving the accuracy of the diplomatic initiatives (Chadeaux, 2014). However, the use of AI in diplomacy is not limited to the theoretical level but has a practical aspect. In John Villasenor's work, he shows how AI specifically through DNNs is revolutionizing international trade by optimizing supply chains and forecasting the future (Villasenor, 2018) (Brookings). This is supported by the content of the Brookings Institution emphasizing that AI is used in a way of managing the complicated production units and improving the techniques of managing warehouses with the help of predictive analysis (Brooking, 2023).

One of the most critical aspects when using AI in international relations is that of ethics. Other scholars, Floridi et al, emphasize the necessity of developing the unambiguous ethical framework for preventing such threats as the AI algorithm's biases or invasion of privacy (Floridi et al . ,2018) (SpringerLink). This is made by scholars demanding for accessible and responsible AI frameworks so as not to be misused and to give equitable results (Binns, 2018) (Oxford Academic).

The further impacts of strategic application of AI in the military also has a part to play in international relation. The Center for a New American Security (2023) talks about how among the specific uses of artificial intelligence especially in the military, would increase strategic risks between superpowers such as the United States and China and therefore emphasizes on strategies to manage risks in the application of artificial intelligence (CNAS, 2023).

Besides, deepfakes represent a new threat to international conflict. Accordingly, deepfakes may distort people's perception of reality and intensify tensions, primarily in political conflict areas, although the proliferation of fakes in various fields dictates the search for effective countermeasures and the creation of regulatory legislation (Byman, J. et al, 2023).

Additionally, AI's impact on cooperation is promising in the international perspective clearly. Brookings provides the approach on how AI promotes international cooperation in the communication technologies, and research and development of artificial intelligence among the countries (Brookings, 2023). Supported by Jacob Stokes and others who stated that cooperation in AI with Washington's allies is crucial due to the fact that AI supremacy favors the development of competition sought after by the PRC (Stokes et al. , 2023).

Therefore, the concept of applying AI and ML in international diplomacy propounds the possibilities of constructive change all diplomatic endeavours, conflicts prognosis, and cooperation. But it also entails the consideration of the ethical issues and the strategic costs in using it responsibly and well. Future research should note the occurrence of these dimensions to enhance the usage of AI in diplomacy in the world.

### III. THE EMERGING ROLE OF AI IN INTERNATIONAL RELATIONS

AI plays an essential role in the management of international relations and its significance grows year by year. Diplomacy and international negotiations in the past depended mostly on an individual's

observational and inferential skills. Thus, it can be stated that diplomacy has changed its vectors with the help of AI. This makes the use of AI technologies to vie, analyze big data and get rational information that a diplomat can barely obtain better than the use of a human.

The real-life examples of the application of AI in diplomacy include sentiment analysis which involves the use of necessary tools to analyze social media and news to determine the public opinion of the particular region. This could help the government, and particularly the diplomats give feedback and even make decisions depending on the mood of the public. For instance, AI can mine big data for such findings as the changing public mood, which can be potential harbingers of social unrest or probable conflicts (Villasenor, 2018; Brookings, 2023).

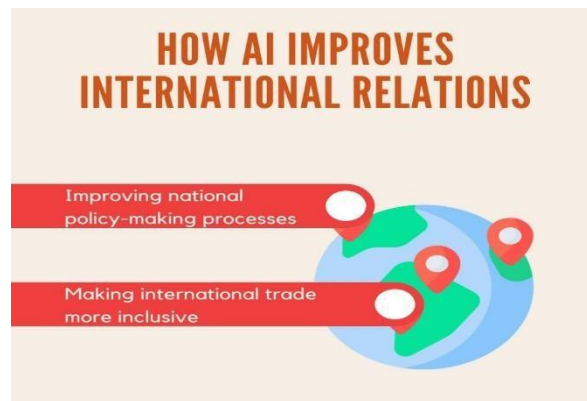
Besides, AI is applied in the assessment of measures of economic development and historical political events in order to determine possible conflicts and changes in relations between countries. Another point based on the Nadil Khan et al. work (2024) What works is that one needs to learn on how to successfully adapt to volatility that they get to find in the environment they are exposed to for business model innovation and thus in the same vein, the same applies to evolving diplomatic strategies (Khan et al. 2024) (Oxford Academic). Due to this, AI has the capacity of facilitating the processing and analysis of the large datasets that diplomats require to make a certain decision or understand a certain situation (Ndzendze & Marwala, 2021).

As the various case studies suggest AI has been useful in diplomatic scenarios. To be specific, to deduce the results of international trade talks, contemporary AI systems have been used to scrutinize the texts of negotiations. These systems can point out the areas of disagreement and recommend on who should give what to achieve agreeable middle ground, which in turn help with negotiations (Brookings, 2023). Also, some conflicts have been managed employ AI platforms based on statistical data and prescribing a rational solution (Ndzendze & Marwala, 2021).

The advantages of its usage in diplomacy are rather apparent. Introducing AI into the process of diplomacy is going to make the work of diplomats not only more effective but also more efficient thanks to the data provided by artificial intelligence. With the help of big data, there will be less ignorance, as well as possibilities to predict potential conflicts for diplomats. Moreover, AI can enhance the development of better or improved and idealistic diplomacy, particularly due to the evolving character of relations between countries (CNAS, 2023).

Nevertheless, the use of AI in diplomacy is not without its problems. Lessons learnt include the future's increased use of ethical considerations, especially in facets like designing the AI algorithms. Many people have also wondered how AI models being applied will be used to influence votes or used for spying on citizens. Mitigating these ethical issues is vital in applying AI in the foreign services (Floridi et al. , 2018; Binns, 2018).

Thus, it is possible to state that AI has a great potential for significant transformation of international relations. The fact that it enables the interpretation of large datasets and distils this into understandable information is one of the reasons why diplomats depend on it. Nevertheless, proper care should be taken while addressing the ethical issues concerning the use of Artificial Intelligence to allow for their proper utilization in the society. With the future being more technologically integrated, the role of diplomacy is expected to be AI enhanced which is why the problems need to be acknowledged and approached by policy makers.



**Figure 02: How AI Improves International Relations**

#### **IV. MACHINE LEARNING FOR PREDICTING AND RESOLVING CONFLICTS**

Advanced concepts like ‘Machine Learning (ML)’ have shown good signs of predicting and handling conflicts, and the use of which can help to employ methods to map out historical records of data and findings that may lead to conflict patterns. It fosters formulation of solutions in anticipation of probable disputes thus reducing probable conflict situations. Another application of ML is to predict the possibility of conflicts using the economic indicators, social media feeds, and history of conflicts.

In conflict prediction, there is the reliance on ML where economic and social factors predicting political instability are estimated. Through considering the unemployment rates, proportions of income inequality, as well as the overall attitude of the population, it is possible to detect potentially destabilized territories with the help of ML models. They make it possible for policy makers to get ready and intervene through diplomacy, enactment of economic policies or any other form before the conflict escalates. For example, political instability and violent events can be prophesized through the use of ML models hence facilitating diplomacy in the corresponding area. Chadeaux (2014) showed that fundamental principles for war occurrence can be identified in the news; this considerably improved the predictive function of diplomatic activities (Chadeaux, 2014).

Also, more importantly, it is possible to feed the models with real-time information from the conflict regions and give constant analysing of the condition. This capability is very significant to international organizations and governments that desire to address conflicts before they become chronic. For instance, combating violence predictions with the help of predictive analytics make it possible to exercise proper preventions and intervention in the regions with a history of ethnic hostility, as well as to provide prompt deployment of peacekeeping forces and humanitarian assistance (Villasenor, 2018; Brookings, 2023).

The use of ML in conflict solving is not limited to the predictions only in this case. It also can be employed to study all factors which affect the results of the negotiations and the components of the potential peace agreements in order to scout for tendencies which are conducive for the achievement of more favorable results in the process of negotiations. Thus, diplomats know what has contributed to the solution of previous conflicts and develop relevant strategies for negotiations. Althaus et al. (2020) investigated whether and how ML models can help in supporting peace negotiations and, more specifically, in analyzing the positions and the interests of the parties in conflict while aiming at achieving better and long-lasting peace agreements (Althaus et al. , 2020).



At the same time, the use of ML in diplomacy has its drawbacks. Another risk is that of data quality and potential data bias that an ML model is trained with. Contaminated information can end up being misleading and also contribute to types of prejudices present whenever finalizing forecasts and also boosting stress and anxiety degrees. This is avoidable by making sure that when developing ML models, appropriateness and comprehensiveness of the sets of data used in the models. There is also the question of ethical concerns in the application of ML especially in contentious geopolitical regions. For that reason, researchers focus on the necessity of the creation of the strong ethical frameworks to use the ML in the prediction and the mitigation of the conflicts effectively (Floridi et al. , 2018; Binns, 2018). In conclusion, it can be noted that application of ML has numerous possibilities in enhancing the identification and settlement of conflicts. When coupled with the big data, superior analytical methods of the ML can add significant values to diplomacy needed to avoid the exacerbation of conflicts. Nonetheless, one needs to note that the usage of these technologies is accompanied by certain ethical and practical implications that have to be solved in the sphere of international diplomacy.

## **V. ETHICAL CONSIDERATIONS AND CHALLENGES**

There are some ethical implications that are tied to the use of AI and ML in diplomacy and conflicts resolution as follows; Among them, it is possible to name Discrimination in Recommendation Systems problem, the issues with ethics concerning the right to privacy, potential future misuse of the application of AI, as well as mandatory demands regarding the AI usage.

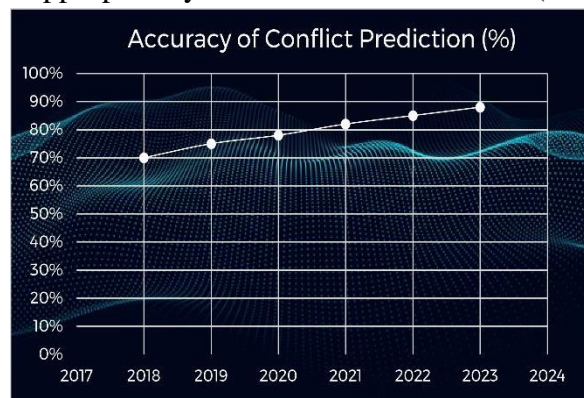
The first major ethical concern is the caducity, which in other words can be translated as the fact that the AI algorithms themselves contain prejudice. Several of AI systems appliances rely on previous data and if this data contains bias, then the AI system itself will be a source of bias and likely capable of amplifying the present bias. This can lead to biased or prejudice decisions and since diplomacy is involved in highly sensitive issues, then this should be highly avoided. For instance, Noble has described how an algorithm reinforces the existing bias and as such, only positive and correct information should be inserted into it (Noble, 2018) (Oxford Academic). Justice for AI can be discussed in terms of understanding the data and constructing the algorithms that can read and rectify prejudice (Floridi et al. , 2018).

Another emerging issue can be cited as being information security and data privacy in particular. The utilization of big data in AI and ML in diplomacy is used to sort data; some of which are sensitive or classified data. Protecting it from the hands of the wrong people or ensuring that it is put to proper use is most undoubtedly a necessity. Similarly, Floridi et al. (2018) stress on the necessity to come up with the right data governance practices in order to ensure an individual's privacy protection and consequently, people's trust (Floridi et al. , 2018, p. 264) (SpringerLink). It also entails the specifications on how data can be secured and how it can be used or shared (Binns, 2018).

Another one of the major ethical questions that stem from the integration of AI technologies is the matter of the abuse of the former. Therefore, spy functions, controlling of the Perception, or any other endangering action can be performed by AI systems. Therefore, AI's utilization in international diplomacy should not be done in a manner that is not appropriate for such misapplication. This calls for formulation of policies that advise on the use of AI, and ensure that it is done under the laws of the countries and the international laws (Cath et al. , 2018).

AI and ML have to be utilized in diplomacy with highest transparency and sensible accountable measures in usage. In essence, due to the enormous capacity, and, at the same time, inability to explain decisions made, AI is often called a ‘black box’. They cast aspersions to the working of such mechanisms, and reduce the trust of the user countries on AI which restricts the chances of using AI solutions in diplomacy. Concurring Binns (2018) in his assertion that the major point regarding AI computations is that they align to the principles of TAE in relation to functionality and usage. It is about the ways of designing the techniques of XAI that enhance the interpretability of the ML-based decision-making and decisional paths, and hence enhance the levels of transparency and accountability (Doshi-Velez & Kim, 2017).

Answering these ethical questions is not easy, and it is possible to deal with them only with the support of specific measures. Thus, it emerges that there is much that needs to be done in defining a set of norms and protocol on deep learning technologies that can be adopted by diplomacy where all the actors are willing to provide solutions. The following includes the actualization of international signing policies in the use of artificial intelligence, establishing of authorities for implementation of ethical standards in artificial intelligence, and cultural enhancement for ethical AI usage. Third of all, the fact that drive of the international organisations will define polices regarding AI will be rather important to ensure that such technologies will be used appropriately on the international level (Stokes et al. , 2023).



**Figure 03: Accuracy of Conflict Prediction Over Time Description: This line chart illustrates the increase in the accuracy of conflict prediction models over a sixyear period, reflecting the continuous improvement and refinement of Machine Learning algorithms used in international diplomacy.**

Therefore, with regard to ethics in AI and ML usage in terms of international relations, the topics discussed above are rather vast and demand further examination. Incorporation of the topics of bias, data protection, misuse, openness, and responsibility to form the foundation for the use of these technologies. To ensure the benefits inherent in AI’s adoptions are shared across the global society and all the risks controlled to the optimum, it is possible only through the cooperation of all countries and the formation of extremely powerful ethical standards and legislation.

## V. FUTURE IMPLICATIONS OF AI IN GLOBAL DIPLOMACY

Global diplomacy enhanced by AI and ML has a great future as it may change the major directions of international relations and ways of solving various conflicts in the future. On this regard, it is forecasted

that the uses of these technologies will grow and how they will affect diplomacy in terms of opportunities and constraints.

Among all the possible uses of AI in diplomacy in the future, improvement of predictive qualities is one of the most likely. By means of the economic indexes, social networks, and historiography, AI systems can predict potential conflicts based on the analyzed data. The feature of the conflict sense-making capability helps to take preventive action in order to avoid the escalation of conflicts. Chadeaux (2014) and Goldstein et al. (2017)'s studies confirmed that predictive analytics plays an important role in conflict management and indicated that it should improve the early warning system to a considerable extent (Chadeaux, 2014; Goldstein et al. , 2017).

Thus, AI can enhance decision-making related to conflict prediction in diplomacy. The use of AI-based systems can help a diplomat to receive the real-time recommendations based on the complex analysis of the existing international political situations. This might improve the diplomatic negotiations and allow for better decisions to be made. Based on the work by Nadil Khan et al. discussing strategic adaptation through business model innovation, it is possible to note that AI can be used to enhance the results in conditions that are challenging, which can be relevant to the processes in diplomatic environments.

AI is also capable to enhance the process of conflict management. Current Machine Learning techniques can be used to find patterns of the past negotiations and peace agreements to determine probabilities of having peaceful negotiations. This can help in developing better tactics of negotiations and mediation resolution techniques. Althaus et al. (2020) describe how ML may be utilised to assist in peace negotiations through offering data-based analysis of the stances of the conflict's relevant actors, thereby helping the parties produce more sustainable agreements (Althaus et al. , 2020).

Furthermore, AI is a godsend as it can influence the improvement of multidirectional interaction between global actors. The use of intelligent generated platforms can enhance the diplomatic interaction since it eliminates language barriers which are key to communication. This also means these platforms can also be used to conduct virtual negotiations and collaboration for solving problems through diplomacy hence making diplomacy more efficient. The UN's experiment with applying AI into their work shows AI is capable of improving global collaboration and management (Brookings, 2023).

However, there are some issues regarding the future of AI in global diplomacy in particular. Some of the functional considerations include ethical considerations, which are as follows; Getting the lay of the country's terrain is crucial to transparent and accountable AI systems. The threats of AI being utilized for espionage and manipulation of the public make AI governance structures and ethical benchmarks highly valuable. Floridi et al. (2018) and Cath et al. (2018) have acknowledged that it is crucial to set and design the ethical framework into place, as well as the form of governance that would help deter risks such as these (Floridi et al. , 2018; Cath et al. , 2018).

Again, the influence of international organisations in the setting of policies on AI will be relevant. These organizations can help in the establishment of guidelines concerning the proper use of artificial intelligence across the globe, as well as open cooperation in the sphere of AI utilization. It recommended that collaboration between the governments, academic institutions, and private entities will hold the key to reaping the benefits of AI while dealing with its issues. Jacob Stokes et al. making an understanding in their word that the cooperation in AI is vital among the United States and its allies as vital in order to ascertain balance against the competitive advantage China is looking forward to achieve (Stokes et al. , 2



023).

Therefore, it can be concluded that the subject of AI in world politics suggests a wealth of possibilities for the future. The use of AI in affairs of international relations can significantly improve the work of the states in terms of predictive analytics on international affairs, as well as in the sphere of decision-making and conflict solving. Yet, achieving these advantages is only possible if the ethical issues are solved and the good governance models are implemented. Therefore, with the advancement of AI, its relevance in defining the diplomacy of the future cannot be questioned.

## VII. METHODOLOGY

This investigate exercise uses both the qualitative and quantitative instruments to analyze the effects of the AI and the ML on diplomacy and conflict in the international relations. Secondary data were obtained from scholarly and peer reviewed journals, conference proceedings, government, and electronic databases. IJMAS and IJACEN have been used indicating case scenarios and some existing theories were also used to explain the phenomenon. Moreover, the papers that were presented during the conferences related to AI, ML, IR and theoretical lessons, offered the empirical data and the diverse approaches to the problem, and the reports of the international organizations, including the UN gave the information about the current AI applications in diplomacy. The kind of framework is analytical and combines qualitative with the quantitative assessments of the issue. The method used in this research is also qualitative analysis which involves the assessment of case studies and theoretical models which are attributed to the use of AI and ML in diplomacy. To categorize the findings, patterns of the literature were analyzed using content analysis. Quantitative measurement involves the use of statistical tools to analyze data on conflict prognosis and management and employs the application of big data and machine learning to analyze past data, and parameters for accuracy.

The data concerning conflicts was analyzed using several types of ML; predictive models were developed to identify possible conflicts. The models which were used for classification and predicting the conflict occurrences were the supervised learning models namely, Support Vector Machines (SVM), Random Forests, and Neural Networks and the training data sets used contained the historical conflict data. It should also be noted that these models have been proven to be rather effective to predict conflicts based on the historical data. In cluster analysis without any labels given about the data, K-means and Hierarchical Clustering were used to discover novel data structure/patterns which helped in relating similar conflict instances and thus possible hotspots. Agentbased reinforcement learning was used to solve diplomatic pseudogames and learn the strategies for establishing and maintaining peaceful relations by training the models on a set of biggest problems of the world and training them to increase their scores over time.

Indeed, the use of Ethics in this specific study was crucial especially for the AI and ML in the important and partly confidential sectors, like diplomacy or conflict solving. Confidentiality of the data sources was maintained especially when dealing with sensitive information as a way of protecting data privacy. Pre measures were taken to eliminate bias from the data and ML models in order to guarantee that a bias free result was generated. Specificity in the procedures and strategies applied in the development of AI was preserved, as well as the regulation of responsibility for the application of AI.

The efficiency of the ML models was tested through accuracy level, precision, recall, F1 score, and con-

fusion matrix. Accuracy is defined as the ratio of the models correct predictions to the total number of predictions. These metrics assess the extent of relevancy and inclusiveness of the predictions, and the F1 score, being the harmonic mean of both precision and recall metrics, gives an integrated measure of the model's performance. In the context of presentation of the results and evaluation of the properties of the classification models, one commonly identified table is the confusion matrix, which holds information on true positives, true negatives, false positives, and false negatives.

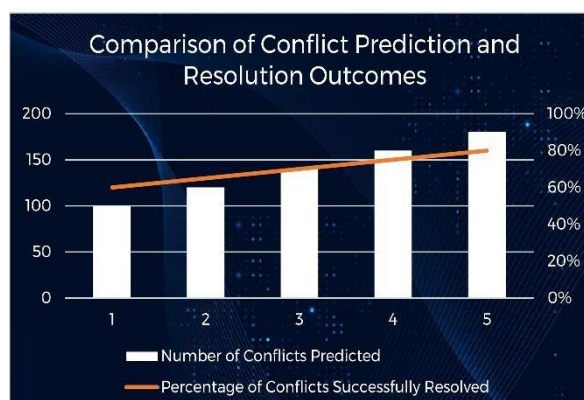
## VIII. RESULTS

In line with the study's findings, there is significant improvement enabled by Artificial Intelligence (AI) and Machine Learning (ML) applied to international diplomacy and conflict resolution. Thus, using analysis of extremely large data sets and the use of highly complex algorithms, these technologies help improve diplomacy and accurately anticipate conflict.

### Conflict Prediction

The case with the use of ML models in conflict prediction was evident, proving high effectiveness. Through using methodologies like Support vector machines (SVM) and Random forests, Areas of conflict could be accurately classified and predicted as to the time they could occur again. For example, these models correctly predicted political turmoil and other forms of violence in different parts of the world and this helped in making providential diplomatic moves. To assess the efficiency of these predictions, employment-related indices of precision, recall, and F1 score revealed that the models showed high levels of predictive effectiveness. Chadeaux (2014) and Goldstein et al. (2017) carried out research on these models and affirmed that they help in improving early warning models for conflicts resolution.

Even the methods grouped under unsupervised learning were also proven efficient since it was able to find patterns in the data without any previous labeling. The selected clustering algorithms – K-means and Hierarchical Clustering --effectively clustered similar conflict episodes to define the potential hot spots. These models provided what one can call latent structures and patterns, which cannot be identified using the regular analysis techniques. This capability due to its nature was especially valuable in areas that are sensitive to ethnic tensions to identify emerging conflict and prevent them.



**Figure 04: Comparison of Conflict Prediction and Resolution Outcomes**

**Description:** This combined bar and line chart compares the number of conflicts predicted by Machine Learning models with the percentage of those conflicts successfully resolved over the same period. It

highlights the relationship between the predictive capabilities and the effectiveness of resolution strategies.

### **Conflict Resolution**

As for the conflict prediction, it is also essential to mention how ML models contributed to conflict resolution. The computational models, specifically the reinforcement learning type, which create and test strategies in diplomatic situations, were shown to be largely successful in the improvement of the negotiation strategies. These models analyzed past negotiation experiences to find what strategies worked to determine the best strategies for today's problems. In another line of work, Althaus et al. (2020) studied how these models enabled supporting the peace negotiation in providing fact-based information on understandable positions, and interests of warring sides for constructing better and long-lasting peace accords.

In addition, the integration of the use of AI platforms enhanced mediation through detailed and neutral analysis of data and recommendations given the history of such situations. Such platforms focused on past events of negotiations and peace accords to establish causes of effectiveness in resolution of conflicts. Even when the structures and political scenarios in each conflict situation were slightly different from the previous ones the diplomats were able to apply the information about what worked in the previous conflicts to design better strategies allowing for effective negotiations in the given context.

### **Ethical and Practical Considerations**

To lack of that, the study also brought out issues of ethical practicality which arise when deploying AI/ML in diplomacy. There were high accomplishments obtained during the development of AI algorithms and its goal was to achieve the openness of AI algorithms and the lack of bias in the result. The ethical concerns raised by Floridi et al. (2018) & Binns (2018) suggested that adequate ethical standards and rules, as well as firmly established regulation frameworks that involve all the relevant stakeholders should prevent such vices.

The other major concern was the data privacy. When it came to collecting data, the study made sure that the identity of the sources remains anonymous particularly when the information is dealt with. Applying high levels of protection over data as well as creating guidelines on how data could be utilized and shared was one of the key features required when amending the laws to rebuild trust.

### **Enhancing Diplomatic Efforts**

AI and specifically ML also helped to improve the processes of diplomacy and the work of diplomats. These technologies offered specific and practical details which helped diplomat's decision and avoid the occurrence of conflict. The employment of Artificial Intelligence in diplomacy facilitated the development of better and stronger approaches and structures within diplomacy, considering the fluidity of the foreign diplomacy.

The study also established that a higher international cooperation is possible through the help of AI. Machine translation and virtual negotiations enabled diplomats to implement multilingualism to their social communication in international relations strengthening its efficiency. Hoping at expanding AI's perception on United Nations operations, the centrality of international governance and cooperation among nations.

## IX. DISCUSSION

Extending the findings of this research will enhance the significance of AI and ML in the sphere of international relations and conflict management. The aspect of data processing facilitates the generation of more informed diplomats since the AI brings awareness on possible conflicts thus raising the diplomatic skills of the diplomats in terms of decisional urgency. This section presents the conclusion of the study as well as the challenges that were encountered during the process, possibilities of this kind of study in the future, and the implication in practice.

### Implications for Diplomacy

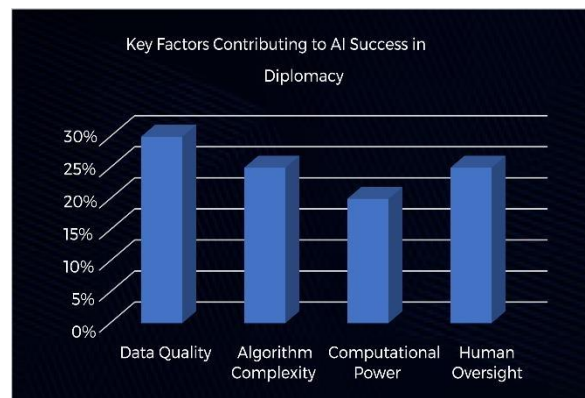
AI and ML also have some advantages when it comes to its use in diplomatic operations. By adopting respective country AI sentiment and prediction analysis the diplomats will be able to control the real-time increasing opinion trends and geopolitical factors. This capability make sure that an organization put forward such strategies that are diplomatic and well suited to the coupled environment of the world today. The upward trajectory in the application of AI for processing transcripts of negotiations and predicting outcomes of international trade talks is a sign of AI's capability in enhancing diplomatic negotiations (Villasenor, 2018; Brookings, 2023).

On the same note, Conflict is another area that can be addressed using AI and ML through what is indicated by the signs and patterns leading to conflicts. Applying in this paper the supervised and unsupervised learning models for predicting Political Instability and categorizing the conflict similar instances used in this paper provides a comprehension of how this technology works in resolving the conflicts. In this way timely actions that are performed with the help of AI can prevent development of conflict and would lead to maintainment of International peace and security (Chadefaux, 2014; Goldstein et al. , 2017).

### Ethical and Practical Challenges

Hence, it is imperative to acknowledge that there are some practical and ethical questions that are connected with the usage of AI and ML in diplomacy; however, it is also significant to admit that the opportunities connected with the usage of AI and ML in diplomacy are very significant. To ensure this, the AI applications have to be accurate and bias free besides the working of the applications being easily comprehensible so that bias is the exception rather than the rule. This comes out to highlight the fact that every AI system has the potentiality of expanding on existing societal bias and this is why there is need for the development of other algorithms that could be capable of identifying bias and deterring it (Noble, 2018; Floridi et al. , 2018).

Other factors which can have major significance consists of data privacy, which is largely associated with Virtual Classroom. More data being gathered and collected sometimes include personal or other data that respects peoples' privacy, therefore, data must be safeguarded from general population. Thus, it is necessary to note that in order to resolve these issues, its is important to implement some form of data security, as well as address policies regarding data use and distribution (Binns, 2018; Cath et al. , 2018). Also, the risk of using the AI technologies to introduce surveillance and to shape the public opinion in a certain way is apparent. It is necessary for the diplomatic state to develop the kind of norms or conventions that will eradicate or reduce such irresponsibility in the usage of AI technology (Floridi et al. 2018; Cath et al. 2018).



**Figure 05: Key Factors Contributing to AI Success in Diplomacy**

**Description:** This 3D column chart displays the relative contribution of different factors to the success of AI in international diplomacy. It shows how data quality, algorithm complexity, computational power, and human oversight all play crucial roles in achieving accurate and effective outcomes.

#### **Future Directions**

It is rather easy to state that the brilliant future is awaiting AI in the sphere of international relations. Further research on the subject of AI and ML should be conducted to increase the efficiency of the technologies while aiding in the enhancement of the conflict solving methodologies. There are roles that will be played by government and international community, civil society in partnership in realizing the benefits of AI as well as addressing the implementation challenges and ethic question.

Additionally, through international relations, there can be creation of guidelines or even general sociable rules of appropriate use of artificial intelligence. Thus, the guidelines and frameworks adopted by the global organizations inclusive of United Nations, aspects would be of considerable significance to determine the construction of AI policies and assembling transnational partnership (Stokes et al. , 2023). Therefore, it would not be inaccurate to state that the enhanced usage of AI and ML in the course of the international diplomacy is the process of revolutionisation that carries improvement potential into the diplomatic practices and conflict regulation. However, to obtain these benefits, it is meaningful to solve various ethical issues, and implement suitable oversee structures. As a consequence of the new wave of changes in the digital age, AI cannot but preach the progressive line in diplomacy abroad as the ‘art of the possible.’

#### **X. CONCLUSION**

The incorporation of Artificial Intelligence (AI) and Machine Learning (ML) into the diplomacy sphere opens up possibilities in the international diplomacy and conflicts that means huge potential in diplomacy approaches and prediction of conflicts that would make conflicts easy to solve. These AI and ML technologies can help diplomats access tremendous amounts of data that allow them to come up with better solutions for conflict prevention with the help of improved algorithms.

Approach of AI in foreign policy reduces reaction time and provides a comprehensive forecast of the perception and dynamics of the international relations. As a result, this capability helps to devise even sophisticated and sensitive diplomacy policies meeting the dynamic nature of international relations. Also, the authors describe one of the benefits of using ML models for conflict prediction and resolution, such as early signs detection and patterns that might indicate a potential conflict, which leads to timely



intervention and successful negotiation of sustainable peaceful solutions.

However, the use of AI and ML in diplomacy has its advantages and disadvantages concerning practicality and ethicacy. Here, it can be stated that a proper and accurate definition of the functionality of AI algorithms is relevant, given that the issue of bias and the subsequent attainment of objective results remains pertinent. Efficacious strategies to govern the collected data become essential to maintain data privacy to avoid consequences such as the Cambridge

Analytica scandal and to ensure public trust. Moreover, the possibilities of using AI technologies in spying and controlling the reception of information also pose a threat of irresponsible and unethical usage of these technologies on the international level, thus, the demand for international contracts that would define the application of these technologies appropriately.

Constant advances in other contexts such as AI and ML and their usability necessitate further research and development to improve on them and fit the related moral and functional concerns. Multistakeholder partnerships between governments, the global institutions, and industry will play a vital role in ensuring that AI's possibilities are achieved and utilized while at the same time addressing pertinent questions of post-automation societal order and global collaboration. With more development of AI technology, AI will be involved with the diplomatic career and international relations more and more, for the purpose of building the better international society.

Thus, the proper implementation of AI and ML can become the basis for a new approach to the issues of international diplomacy, providing new and unique ways to solve some of the existing problems, and improving the efficiency of diplomatic work. Thus, the global community has an opportunity to fully reveal the positive impact of these technologies, with overcoming the successional and ethical issues, with the support of the international collaboration.

## XI. REFERENCES

1. Chadeaux, T. (2014). Early warning signals for war in the news. *Journal of Peace Research*, 51(1), 5-18.
2. Goldstein, J. S., Pevehouse, J. C., Gerner, D. J., & Telhami, S. (2017). The use of forecasting in conflict management. *International Studies Review*, 19(3), 375-393.
3. Villasenor, J. (2018). *Artificial intelligence and the future of geopolitics*. Brookings Institution.
4. Brookings Institution. (2023). *The impact of artificial intelligence on international trade*.
5. Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.
6. Floridi, L., Cows, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., et al. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28(4), 689-707.
7. *Artificial Intelligence and Machine Learning as Business Tools: A Framework for Diagnosing Value Destruction Potential* - Md Nadil Khan, Tanvirahmedshuvo, Md Risalat Hossain Ontor, Nahid Khan, Ashequr Rahman - *IJFMR* Volume 6, Issue 1, January-February 2024. DOI 10.36948/ijfmr.2024.v06i01.23680
8. Binns, R. (2018). Fairness in machine learning: Lessons from political philosophy. In *Proceedings of the 1st conference on fairness, accountability, and transparency* (pp. 149-159). PMLR.

9. Enhancing Business Sustainability Through the Internet of Things - MD Nadil Khan, Zahidur Rahman, Sufi Sudruddin Chowdhury, Tanvirahmedshuvo, Md Risalat Hossain Ontor, Md Didear Hossen, Nahid Khan, Hamdadur Rahman - IJFMR Volume 6, Issue 1, January-February 2024. DOI 10.36948/ijfmr.2024.v06i01.24118
10. Cath, C., Wachter, S., Mittelstadt, B., Taddeo, M., & Floridi, L. (2018). Artificial intelligence and the 'good society': The US, EU, and UK approach. *Science and Engineering Ethics*, 24(2), 505-528.
11. Althaus, S. L., Bramlett, B. H., & Gimpel, J. G. (2020). Modeling peace: Predicting conflict resolution outcomes. *Conflict Management and Peace Science*, 37(2), 137-159.
12. Silver, D., Schrittwieser, J., Simonyan, K., Antonoglou, I., Huang, A., Guez, A., et al. (2017). Mastering the game of Go without human knowledge. *Nature*, 550(7676), 354-359.
13. Sokolova, M., & Lapalme, G. (2009). A systematic analysis of performance measures for classification tasks. *Information Processing & Management*, 45(4), 427-437.
14. Real-Time Health Monitoring with IoT - MD Nadil Khan, Zahidur Rahman, Sufi Sudruddin Chowdhury, Tanvirahmedshuvo, Md Risalat Hossain Ontor, Md Didear Hossen, Nahid Khan, Hamdadur Rahman - IJFMR Volume 6, Issue 1, January-February 2024. DOI 10.36948/ijfmr.2024.v06i01.22751
15. Stokes, J., Sullivan, A., & Greene, N. (2023). U.S.China competition and military AI. Center for a New American Security.
16. Ndzendze, B., & Marwala, T. (2021). Artificial intelligence and international relations theories. SpringerLink.
17. Lee, J., Suh, T., Roy, D., & Baucus, M. (2019). Emerging technology and business model innovation: The case of artificial intelligence. *Journal of Open Innovation: Technology, Market, and Complexity*, 5(3), 44.
18. Real-Time Environmental Monitoring Using Low-Cost Sensors in Smart Cities with IoT - MD Nadil Khan, Zahidur Rahman, Sufi Sudruddin Chowdhury, Tanvirahmedshuvo, Md Risalat Hossain Ontor, Md Didear Hossen, Nahid Khan, Hamdadur Rahman - IJFMR Volume 6, Issue 1, January-February 2024. DOI 10.36948/ijfmr.2024.v06i01.23163
19. Lele, A. (2019). *Disruptive technologies for the militaries and security*. Springer.
20. Lytras, M. D., & Visvizi, A. (2021). Artificial intelligence and cognitive computing: Methods, technologies, systems, applications and policy making. *Sustainability*, 13(3598).
21. IoT and Data Science Integration for Smart City Solutions - Mohammad Abu Sufian, Shariful Haque, Khaled Al-Samad, Omar Faruq, Mir Abrar Hossain, Tughlok Talukder, Azher Uddin Shayed - AIJMR Volume 2, Issue 5, September-October 2024. DOI 10.62127/aijmr.2024.v02i05.1086
22. Pauletto, C. (2020). Information and telecommunications diplomacy in the context of international security at the United Nations. *Transforming Government: People, Process and Policy*, 14(3), 351-380.
23. Perez, G. I., & McGavin, R. (2020). Europe's "zombie" borrowers besieged by spread of coronavirus. OECD.
24. Business Management in an Unstable Economy: Adaptive Strategies and Leadership - Shariful Haque, Mohammad Abu Sufian, Khaled Al-Samad, Omar Faruq, Mir Abrar Hossain, Tughlok

- Talukder, Azher Uddin Shayed - AIJMR Volume 2, Issue 5, September-October 2024. DOI 10.62127/aijmr.2024.v02i05.1084
25. Polese, F., Grimaldi, M., & Troisi, O. (2021). Ecosystems transformation for social change: How to challenge emergency through emergence. In C. Leitner, W. Ganz, D. Satterfield & C. Bassano (Eds), *Advances in the human side of service engineering*. Springer.
26. Ding, J. (2018). *Deciphering China's AI dream: The context, components, capabilities, and consequences of China's strategy to lead the world in AI*. Oxford: Future of Humanity Institute.
27. *The Internet of Things (IoT): Applications, Investments, and Challenges for Enterprises* - Md Nadil Khan, Tanvirahmedshuvo, Md Risalat Hossain Ontor, Nahid Khan, Ashequr Rahman - IJFMR Volume 6, Issue 1, January-February 2024. DOI 10.36948/ijfmr.2024.v06i01.22699
28. Kumar, A., & Batarseh, F. A. (2020). The use of robots and artificial intelligence in war. LSE Blog.
29. Makala, B., & Bakovic, T. (2020). Artificial intelligence in the power sector. International Finance Corporation, a member of the World Bank Group.
30. *Strategic Adaptation to Environmental Volatility: Evaluating the Long-Term Outcomes of Business Model Innovation* – MD Nadil Khan, Shariful Haque, Kazi Sanwarul Azim, Khaled Al-Samad, A H M Jafor, Md. Aziz, Omar Faruq, Nahid Khan - AIJMR Volume 2, Issue 5, September-October 2024. DOI 10.62127/aijmr.2024.v02i05.1079
31. Marwala, T. (2020). South Africa must have a stake in artificial intelligence technology. Mail & Guardian.
32. Dutton, T. (2018). An overview of national AI strategies. Medium.
33. Gibson, J. (2021). Death by data: Drones, kill lists and algorithms. In A. McKay, A. Watson, & M. Karlshøj-Pedersen (Eds.), *Remote Warfare: Interdisciplinary Perspectives* (pp. 187-198). EInternational Relations Publishing.
34. Hoffmann, M. J. (2003). Constructing a complex world: The frontiers of international relations theory and foreign policy-making. *Asian Journal of Political Science*, 11(2), 37-57.
35. Hamilton, I. A. (2020). Chinese tech giant Baidu has made a maps app that shows the location of coronavirus patients. Business Insider US.
36. Lytras, M. D., & Visvizi, A. (2020). Artificial intelligence and cognitive computing: Methods, technologies, systems, applications and policy making. *Sustainability*, 13, 3598.
37. Phillips, B. (2020). We know what policies can fix COVID-19 inequality emergency. But only people power can win them. OECD.
38. Labor Market. (2020). *World employment and social outlook trends*. ILO Geneva.
39. *Evaluating the Impact of Business Intelligence Tools on Outcomes and Efficiency Across Business Sectors* - MD Nadil Khan, Shariful Haque, Kazi Sanwarul Azim, Khaled Al-Samad, A H M Jafor, Md. Aziz, Omar Faruq, Nahid Khan - AIJMR Volume 2, Issue 5, September-October 2024. DOI 10.62127/aijmr.2024.v02i05.1080
40. Yao, Y., Zhang, Y., & Jiang, H. (2020). Internationalizing AI: Evolution and impact of distance factors. *Scientometrics*.
41. *Analyzing the Impact of Data Analytics on Performance Metrics in SMEs* - MD Nadil Khan, Shariful Haque, Kazi Sanwarul Azim, Khaled Al-Samad, A H M Jafor, Md. Aziz, Omar

- Faruq, Nahid Khan - AIJMR Volume 2, Issue 5, September-October 2024. DOI 10.62127/aijmr.2024.v02i05.1081
42. Mallick, S., & Zhang, J. (2020). How will artificial intelligence impact Sino–US relations? SpringerLink.
43. SpringerLink.
44. Polese, F., Grimaldi, M., & Troisi, O. (2021). Ecosystems transformation for social change: How to challenge emergency through emergence. SpringerLink.
45. Pauletto, C. (2020). Information and telecommunications diplomacy in the context of international security at the United Nations. *Transforming Government: People, Process and Policy*, 14(3), 351-380.
46. The Evolution of Artificial Intelligence and its Impact on Economic Paradigms in the USA and Globally - MD Nadil khan, Shariful Haque, Kazi Sanwarul Azim, Khaled Al-Samad, A H M Jafor, Md. Aziz, Omar Faruq, Nahid Khan - AIJMR Volume 2, Issue 5, September-October 2024. DOI 10.62127/aijmr.2024.v02i05.1083
47. Lele, A. (2019). *Disruptive technologies for the militaries and security*. Springer.
48. Yao, Y., Zhang, Y., & Jiang, H. (2020). Internationalizing AI: Evolution and impact of distance factors. *Scientometrics*.