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## UTILIZATION OF CHATGPT AS A TOOL FOR EXAMINATION OF HISTORICAL SUBJECTS

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### Abstract

The ascendancy of artificial intelligence (AI) has caused a far-reaching influence upon contemporary society. ChatGPT stands as an exemplar among the array of potent instruments that have surfaced in recent times. The authors present several instances showcasing the application of ChatGPT in historical learning, particularly within the context of the Ottoman Empire's history, drawing from their own research.

ChatGPT can assist researchers in undertaking historical literature reviews by condensing crucial concepts and discoveries from scholarly books and articles. Researchers furnish ChatGPT with particular subjects, and it can subsequently produce brief summaries while pinpointing key details. To verify the authenticity of this assertion, the researchers engaged ChatGPT to summarize and enumerate prominent aspects from the book "Osman's dream: The story of the Ottoman Empire 1300-1923" by Caroline Finkel and present some of the insights.

Another activity experienced by authors is participating in dialogues with historical figures that permits researchers to engage in virtual exchanges with personalities from the past. This interactive approach provides the opportunity to ask questions and obtain responses imbued with the perspectives of historical individuals, making the study of history more relatable and captivating, particularly for younger learners.

One more point of using ChatGPT is an experience of immersion in some historical periods. The experimenters believe that these types of activities shed light on the prevailing modus operandi of historical circumstances, offering insight into alternative approaches for addressing specific issues. This, in turn, enhances our comprehension of the historical subject matter, encouraging both remembrance and understanding.

ChatGPT offers numerous methods to facilitate an effective and engaging study of history. While books and articles undoubtedly provide valuable information, they occasionally fall short in terms of entertainment value, which deters younger learners.

**Keywords:** AI, ChatGPT, learning history, the Ottoman Empire.

### Introduction

Language models have evolved significantly over the years, with ChatGPT being a prime example of the remarkable advancements in this field. Developed by Open AI, ChatGPT is a natural language processing model that is based on the GPT architecture. Unlike traditional AI models that are typically used for making predictions, ChatGPT is a generative AI that has the ability to generate new content and express it in real-time conversations. One of the key features of ChatGPT is its ability to understand user requests and produce personalized, human-like responses. This sets it apart from earlier machine learning models and opens up a world of possibilities in various industries.

One might wonder: “How can ChatGPT, a freshly made chatbot, contribute to the acquirement of knowledge in a discipline as profoundly complex as history, a field demanding countless hours of research and unwavering commitment?”. Now, what if I were to impart that you could engage in direct discourse with historical figures, gleaning insights firsthand, or even travel in time to immerse yourself in the experience of historical personas, thereby understanding the consequences of their actions? If I have piqued your intellectual curiosity, let’s commence our exploration.

### **Experiment and Findings**

To fully comprehend the capabilities of ChatGPT in the realm of history, it is important to delve into its architecture and operational mechanisms. The architecture of ChatGPT is built upon the GPT architecture, which has proven to be highly effective in natural language processing tasks. According to Open AI, the organization behind ChatGPT, this architecture forms the foundation of many advanced language models, including ChatGPT itself. By leveraging deep learning techniques, natural language processing algorithms, and self-attention mechanisms, it is able to generate human-like text and provide thorough and informative responses. The core component of ChatGPT is the transformer neural network, which plays a crucial role in generating human-like text and understanding the user's inputs. This network consists of several interconnected layers, known as "transformer blocks," that analyze the input and provide appropriate output suggestions. After this phase, according to Medium’s article “How does ChatGPT work?”, it undergoes “fine-tuning” on specific tasks, such as answering questions about history in our case. During this stage, it refines its knowledge and behavior to match the task its designed for. ChatGPT gained significant popularity soon after its introduction in late November 2022. When we interact with ChatGPT, it analyzes our input, generates a response based on what it has learned, and delivers it in a decent manner. It gradually improves its performance by gaining knowledge from many user interactions. This process, on its behalf, enables ChatGPT to offer helpful and contextually relevant responses.

ChatGPT possesses a wide range of potential applications, spanning from customer assistance to entertainment purposes. For instance, companies can employ this smart chatbot to deliver round-the-clock service and aid, while academic institutions can utilize it to offer tailored tutoring or mentorship to learners. Moreover, it can also be used in gaming and entertainment to create more immersive experiences for users. As a student specializing in Oriental Studies, I am truly enthusiastic to present several instances showcasing the application of ChatGPT in historical learning, particularly within the context of the Ottoman Empire’s history, drawing from my own limited research. ChatGPT has shown great potential in enhancing historical learning, especially in the study of the Ottoman Empire. By leveraging its language processing capabilities, it can assist students in researching and analyzing various aspects of Ottoman history. With access to a vast amount of historical texts and primary sources, students can engage in in-depth discussions with ChatGPT, gaining valuable insights and expanding their knowledge base. For example, students can ask ChatGPT questions about specific events or figures in Ottoman history and receive detailed responses backed by historical evidence.

Furthermore, ChatGPT's ability to generate coherent and informative content can be utilized to create engaging reports on Ottoman history. Students can provide prompts or questions to ChatGPT, which can generate well-structured responses, offering a fresh perspective on the subject matter.

ChatGPT can assist research in undertaking historical literature reviews by condensing crucial concepts and discoveries from scholarly books and articles. Researchers furnish ChatGPT with particular subjects, and it can subsequently produce brief summaries while pinpointing key details. This feature of ChatGPT has the potential to greatly benefit researchers in their literature review process. By inputting specific subjects, researchers can utilize the chatbot to generate concise summaries that highlight key concepts and discoveries from scholarly books and articles. This can be particularly useful in condensing large amounts of information into digestible chunks, allowing researchers to quickly grasp the essential points of a particular topic. Additionally, ChatGPT's ability to pinpoint key details can assist researchers in identifying important research gaps or areas that require further investigation.

To verify the authenticity of this assertion, I engaged ChatGPT to summarize and enumerate prominent aspects from the book I had previously read, namely, “Osman’s dream: The story of the Ottoman Empire 1300-1923” by Caroline Finkel. This book is a comprehensive historical account of the rise, expansion, and eventual decline of the Ottoman Empire. The book covers a vast span of time, from the empire's origin in 14<sup>th</sup> century under Osman Gazi to its dissolution in the aftermath of World War I in 1923. To my astonishment, the AI chatbot proficiently listed not only the principal points but also accounted aspects that had eluded my memory or received scant attention. Presented here are some of the insights provided by ChatGPT, and I will stop on each of them to give examples from the book itself.

“1. Founding and Expansion. The book explores the early years of the Ottoman empire, focusing on its founder, Osman Gazi, and the subsequent expansion of Ottoman territory through military conquests, diplomacy, and strategic alliances.” – according to the book, twelve years after his rise to power, Osman came into direct conflict with the Byzantine imperial forces at Koyunhisar, or Bafeon. The Greeks, seeking to stop the Ottoman raid on the fertile valley facing Nicomedia, were easily defeated by a quick and decisive cavalry charge that broke their battle lines. This defeat of the imperial troops, inflicted by a little-known Turkic leader, alarmed Byzantium, which now had to consider Osman's principality as a factor to be reckoned with. The defeat of Byzantium brought fame to Osman, and warriors from all over Anatolia began to flock to his banner, proud to become Ottomans. Seven years later, Osman Gazi attacked the fortresses of Akhisar, which dominated the Sakarya River, which flowed into the valley beyond Nicomedia. He captured them, thereby opening the path to the sea for the Ottomans. Then the Ottomans first appeared on the shores of the Bosphorus and gradually began to conquer harbors and fortresses on the coastal Black Sea strip of the peninsula. They eventually captured the island of Kalolimni, penetrating to the Sea of Marmara. However, Osman Gazi did create alliances with the neighboring Byzantine Empire (when it served their mutual interests), beyliks (smaller states or principalities), Sultanate of Rum (a successor state to the Seljuk Empire) and ghazis (frontier lords and saint warriors). He also had the support of Kayi Tribe since he originally belonged to it. Nevertheless, Osman Gazi also conquered Bithynia (Northwestern Anatolia), Bursa (which then became the capital of the Ottoman Empire), Yenişehir, Karacahisar and İznik.

“2. The Military Power. The Ottoman military, known for its formidable Janissaries (Yeniçeri) and successful campaigns, is a central focus of the book.” – indeed, the book illustrates how military prowess played a crucial role in the empire’s expansion. Certainly, we cannot overlook the momentous conquest of Constantinople by Mehmed the Conqueror, when addressing the Ottoman military, for this pivotal event serves as a vivid manifestation of its power and strength. This conquest was a remarkable achievement, as the city had withstood numerous sieges over centuries. Sultan Mehmed’s forces, which included a formidable navy, artillery, and infantry, breached the city’s defenses, and caused the fall of Constantinople. The Sultan's attack on the city walls came in three successive waves.

The first wave was formed by the bashi-bazouks, an irregular force whose purpose was to wear down the enemy at the beginning of the battle. Mehmed the Conqueror also personally took part in the attack. According to many historical sources, he led the Janissaries, the most formidable force of the Ottoman army. Without delay they moved towards the fortifications, encouraged by military music, and strictly observing battle order under a hail of arrows flying towards them. Many Janissaries managed to reach the inner wall and climb it without encountering resistance. Then the Ottoman flags rose on one of the towers of the fortress and a triumphant cry of victory rang out.

“3. World War I and Dissolution: Finkel discusses the Ottoman Empire’s role in WWI and the dismantling of the empire, leading to the establishment of the modern Turkish Republic under Mustafa Kemal Atatürk.” – as the book says, by the 20<sup>th</sup> century, the Ottoman Empire was in decline, weakened by internal problems and losses in World War I. Mustafa Kemal Atatürk, a military leader and visionary, appeared as a key figure. He led the Turkish War of Independence (1919-1923) against Allied forces and the Ottoman Government’s control. It turns out that when his fellow Turkish citizens proved their willingness to fight under his leadership for the survival of the nation in the land of their ancestors, he was able to find a successor state to the Ottoman Empire - the Turkish Republic. After the treaty of Lausanne, Mustafa Kemal Atatürk declared the establishment of the Republic of Türkiye on October 19, 1923.

Participating in dialogues with historical figures permits you to engage in virtual exchanges with personalities from the past. This interactive approach provides the opportunity to ask questions and obtain responses imbued with the perspectives of historical individuals, making the study of history more relatable and captivating, particularly for younger learners. Now, how can we accomplish this task? Here is the step-by-step guide that was used by me: Firstly, select a historical figure. Secondly, think about the questions you would like to ask, considering what exactly you want to learn. Finally, start the conversation by addressing the historical character by name and setting the context for the conversation. For instance, imagine a virtual dialogue with Al-Farabi, set in the golden age of Islamic philosophy during the 9th and 10th centuries. You find yourself transported to the House of Wisdom in Baghdad, surrounded by scholars and scientists of the time. Through advanced technology, you can talk to Al-Farabi and ask him about his ideas on ethics, politics, and the harmony of the soul. To illustrate, Al-Farabi’s famous work “The Virtuous City” and how he integrated Aristotle’s philosophy into Islamic thought. Al-Farabi, or ChatGPT, responds with eloquence, explaining his belief in the importance of cultivating virtuous citizens and how this contributes to a just and harmonious society. This immersive experience not only provides you with historical insights but also allows you to grasp Al-Farabi’s philosophical nuances and his role in preserving and transmitting classical Greek knowledge to the Western world. I, on my behalf, was honored to discuss the magnificence of the Ottoman architecture with Mimar Sinan himself! My question’s intent was to learn about this great architect’s source of inspiration in building the Süleymaniye mosque.

“I drew inspiration from classical Greek and Roman architecture, particularly the works of Vitruvius and the architectural marvels of ancient Rome. I integrated classical elements into my designs, adapting them to suit the Ottoman architectural style.” – was ChatGPT’s response as Mimar Sinan. To ascertain the reliability of this statement, I conducted an extensive review of academic articles describing the life of Mimar Sinan. A majority of these sources confirmed the authenticity of the aforementioned claims. For instance, a Turkish article titled “Mimar Sinan’ın Mühteşem Eseri: Süleymaniye Camii” lent further support to this unanimity. It states that one of the four columns of the mosque was brought from a Roman structure in the Vefa district of Peninsula.

Also, using ChatGPT I (A. Salimbay) engaged in a time travel simulation. To do this, first choose the historical figure (or someone related to them) you want to be. Whether it's Alp Arslan, Suleyman the Magnificent, or Nasuh Matrakchi, the chatbot can emulate their personality. It is also better to research your chosen historical character thoroughly. Understand their background, beliefs, accomplishments, and the era in which they lived. This information will be vital for creating an accurate portrayal. Then, initiate conversations with ChatGPT as if you are the historical figure. Craft questions or prompts that reflect key events and issues of their time.

A. Salimbay's experiment: I was immersed in the period of battles between Vlad Dracula (also known as Vlad the Impaler) and Mehmed the Conqueror. Making decisions as Vlad Dracula's advisor as if I was living in that time, I asked ChatGPT to provide feedback on the consequences of my actions and choices. The rationale behind my decision to serve as Vlad's advisor is clear: I aimed to explore the potential outcomes had Vlad opted not to engage in conflict with Mehmed, someone with whom he shared a fraternal upbringing, and instead directed his efforts towards improving the lives of common people. ChatGPT has offered positive consequences for my decision concerning economic development, internal stability, protection from external threats and diplomatic standing of Wallachia. Authentic historical accounts, as well as the second season of Netflix documentary series "Rise of Empires: Ottoman", recount a tragic narrative involving these two very interesting personas, whereby Vlad embarked on a campaign against Sultan Mehmed in pursuit of Wallachia's independence from Ottoman protectorate.

### **Conclusion**

ChatGPT offers a multifaceted instrument to improve the study of history in an effective and notably engaging manner. While traditional sources such as books and articles undoubtedly provide valuable information, they sometimes struggle to capture the attention and interest of younger learners. ChatGPT, on the other hand, bridges this gap by infusing history with interactivity and personalization. It becomes a virtual time machine, allowing users to travel back in time, converse with historical figures, and explore the nuances of the past. As such, ChatGPT assumes distinct significance and utility in the field of history education, making the subject more accessible, relatable, and captivating for learners of all ages.

### **Discussion**

These activities shed light on the prevailing modus operandi of historical circumstances, offering insight into alternative approaches for addressing specific issues.

Participating in those activities that involve ChatGPT to simulate historical experiences and conversations serves as a very useful tool to familiarize oneself with historical matters. It delves deeper into the intricacies of the past, offering a possibility of alternative approaches that could have been taken to address specific challenges. By doing so, these activities provide invaluable insights that transcend the mere recounting of historical events. They allow us to step into the shoes of historical figures, experience their dilemmas, and contemplate the decisions they made.

This immersive approach enriches our understanding of history and fosters a strong connection with the past. It encourages not just passive recollection but active engagement with historical narratives. When we can engage with history in such an interactive and relatable manner, it becomes more than a dry recitation of facts; it becomes a living, breathing exploration of the human experience across time.

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