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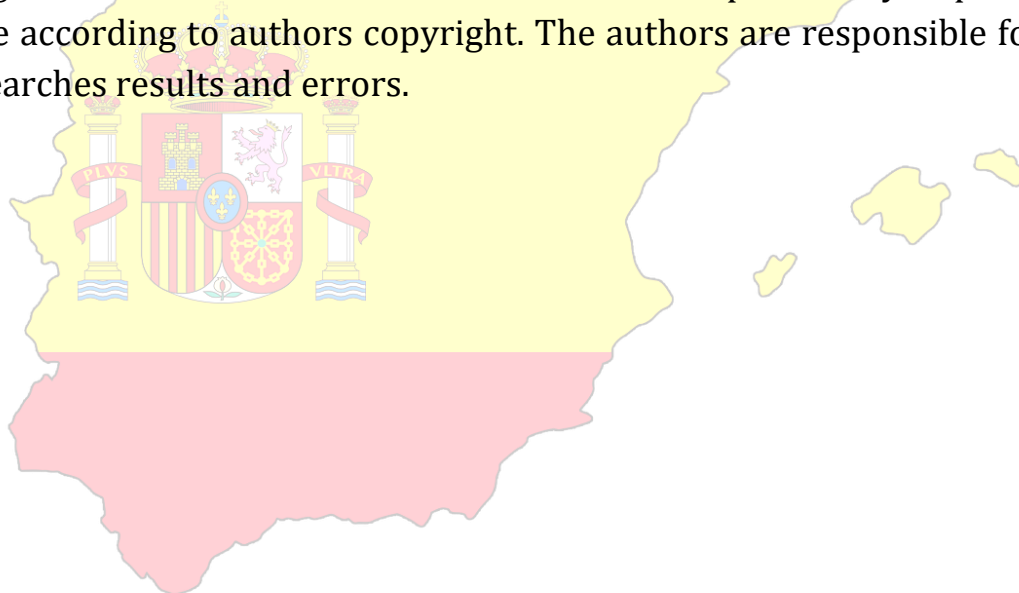


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## **Zahiriddin Muhammad Bobur: Tarixdagi birinchi “Soft Power” amaliyotchisi sifatida.**

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**Annotatsiya.** Ushbu maqola Zahiriddin Muhammad Boburning tarixiy siymosini “soft power” — yumshoq kuch nazariyasi asosida qayta talqin qilishga urinadi. Mazkur kontseptsiya XX asr oxirlarida amerikalik olim Joseph Nye tomonidan ilgari surilgan bo‘lib, davlat yoki shaxsning zo‘ravonlik va iqtisodiy bosimsiz, balki madaniyat, qadriyat va diplomatik joziba orqali boshqa subyektlarga ta‘sir ko‘rsatish qobiliyatini ifodalaydi. Bobur aynan shu zamonaviy tushuncha mezonlariga mos ravishda, Hindistonga qilgan yurishlari davomida qurol bilan emas, balki madaniy-ma‘naviy, adabiy va siyosiy ta‘sir orqali o‘z hokimiyatini mustahkamlagan tarixiy arbob sifatida tahlil qilinadi.

Maqolada Boburning “Boburnoma” asari, uning she‘riyati, diniy bag‘rikengligi va ijtimoiy qadriyatlarni tarannum etgan siyosiy qarashlari asosida yumshoq kuch omillari aniqlanadi. Shuningdek, Boburiylar saltanati misolida soft power‘ning nasliy ta‘siri, madaniy diplomatiya, xalqlararo murosaga asoslangan boshqaruv modeli o‘rganiladi. Ushbu yondashuv Boburni faqat zabt etuvchi sarkarda sifatida emas, balki o‘z madaniyatini strategik uslubda eksport qilgan geosiyosiy lider sifatida talqin qilish imkonini beradi. Maqola tarixshunoslik, siyosatshunoslik va madaniyatshunoslik kesishmasida olib borilgan bo‘lib, tarixiy shaxsiyatni zamonaviy nazariya orqali tahlil qilishga qaratilgan. Bu esa o‘z navbatida, tarixni yangi nigoh bilan o‘rganish va bugungi global munosabatlarda yumshoq kuchning ildizlarini tushunishga zamin yaratadi.

### **Abstract:**

This article explores the historical personality of Zahiriddin Muhammad Babur through the lens of contemporary international relations theory—specifically, the concept of soft power as articulated by Joseph Nye. While Babur is widely recognized as a military commander and founder of the Mughal Empire in India, this study focuses on his strategic use of culture, literature, religious tolerance, and diplomacy to exert influence and establish long-lasting legitimacy in a foreign land. The central thesis is that Babur’s leadership approach exemplifies key components of soft power, namely the ability to attract and co-opt rather than coerce.

## THE APPLICATION OF ARTIFICIAL INTELLIGENCE IN MATHEMATICS

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**Abstract.** In recent years, the rapid development of information technologies has deeply penetrated all areas of human activity. One of these areas is artificial intelligence (AI) technology. Artificial intelligence is an important field of computer science that enables computer systems to think, analyze, learn, and make decisions similar to the human mind. It is widely used not only in production, medicine, and economics but also in the education system. Especially in mathematics, AI-based programs, algorithms, and models serve as effective tools for increasing the efficiency of the learning process.

**Keywords:** mathematics, artificial intelligence (AI), information technology, interactive learning, digital education, ICT, innovative methodology, online platforms, motivation, artificial intelligence.

### **Theoretical Foundations of Artificial Intelligence**

Artificial intelligence generally refers to systems that model human thinking processes on computers. These include neural networks, expert systems, evolutionary algorithms, fuzzy logic, and machine learning technologies. All these areas focus on analyzing and processing data to produce logically grounded conclusions. In mathematics, such systems are widely used for mathematical modeling, automating complex calculations, data analysis, and optimizing results. For example, the use of artificial neural networks in approximating mathematical functions, solving differential equations, or classifying data provides high accuracy.

### **Historical Development of Artificial Intelligence**

The term "Artificial Intelligence" was first introduced by American scientist John McCarthy in 1956. Since the 1950s–60s, early research in this field has been associated with problem-solving, processing linguistically expressed information, and creating symbolic computation systems. Today, AI technologies are evolving in advanced directions such as deep learning, natural language processing (NLP), computer vision, and predictive analytics. All of these rely on various branches of mathematics — probability theory, linear algebra, mathematical statistics, and optimization methods.

### **Applications of Artificial Intelligence in Mathematics**

Mathematics and artificial intelligence are closely related disciplines. On one hand, AI algorithms are based on mathematical principles; on the other hand, AI technologies enrich the process of teaching mathematics. AI technologies are especially useful in the following areas:

- Automatic problem-solving: AI is used to develop programs that can automatically solve equations, inequalities, matrices, integrals, and differential problems.
- Adaptive learning systems: Systems that analyze students' individual learning levels and provide customized assignments have been developed.
- Mathematical modeling: AI algorithms enable the simulation of complex economic, physical, and biological processes through mathematical models.
- Automated testing systems: AI helps analyze test answers, detect errors, and provide feedback to students.

### **The Role of Artificial Intelligence Technologies in the Educational Process**

Today, AI-based platforms are being widely implemented in the education system. They assist teachers in planning lessons, assessing students' knowledge levels, and determining individual learning paths. In mathematics, these technologies teach students logical reasoning and analytical approaches. For example, systems like GeoGebra AI, Wolfram Alpha, ChatGPT, and AI Math Solver can interpret mathematical expressions, analyze them step by step, and explain the solutions. This encourages students to think deeply and work independently during the learning process.

### **Conclusion**

The development of artificial intelligence has brought new opportunities to modern education, particularly in mathematics. It not only automates computational processes but also plays an important role in developing students' thinking abilities, reducing teachers' workload, and improving the quality of education. In the future, the full integration of AI technologies into the educational process, the implementation of personalized learning approaches in teaching mathematics, and the formation of digital competencies will be among the promising areas of scientific research.

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