Application of Artificial Intelligence in Public Relations

Halkla İlişkilerde Yapay Zeka Uygulaması

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ABSTRACT

The technological progress and new challenges alike make it necessary to apply to artificial intelligence in public relations. We observe noticeable changes in this sphere of action over the past ten years. With the incorporation of the terms and concepts such as big data, machine learning, personalized chatbots, and spatial intelligence into the corporate communication, we observe how rapidly they integrate into the public relations. The article examines the scope of application of artificial intelligence in public relations. Artificial intelligence tools are widely used in data analysis, projection, content creation, crisis management, multimedia product development, and communication with the target audience. In addition, the article explores new trends in public relations using social media platforms, examining the potential of artificial intelligence in studying user opinions in advertising and marketing activities. It presents reports from international research centers with further classifications based on various indicators. The paper also explores shortcomings and areas for improvement, along with extensive analysis on the advantages of artificial intelligence. In general, we conclude that there is no sober ground to believe that artificial intelligence can fully replace the human consciousness, although it is able to simulate it.

ÖZET

Teknolojik ilerleme ve yeni zorluklar, yapay zekanın halkla ilişkilerde uygulanmasını gerekli kılıyor. Son on yılda bu eylem alanında gözle görülür değişiklikler gözlemliyoruz. Büyük veri, makine öğrenimi, kişiselleştirilmiş sohbet robotları ve mekansal zeka gibi terimlerin ve kavramların kurumsal iletişime dahil edilmesiyle, bunların halkla ilişkilere ne kadar hızlı entegre olduğunu görüyoruz. Makale, yapay zekanın halkla ilişkilerdeki uygulama kapsamını inceliyor. Yapay zeka araçları, veri analizi, projeksiyon, içerik oluşturma, kriz yönetimi, multimedya ürün geliştirme ve hedef kitleyle iletişimde yaygın olarak kullanılmaktadır. Ayrıca, makale sosyal medya platformlarını kullanarak halkla ilişkilerdeki yeni eğilimleri araştırıyor ve yapay zekanın reklam ve pazarlama faaliyetlerinde kullanıcı görüşlerini incelemedeki potansiyelini inceliyor. Çeşitli göstergelere dayalı daha fazla sınıflandırma ile uluslararası araştırma merkezlerinden raporlar sunuyor. Makale ayrıca, yapay zekanın avantajları hakkında kapsamlı bir analizle birlikte eksiklikleri ve iyileştirilecek alanları da araştırıyor. Genel olarak, yapay zekanın insan bilincini tamamen değiştirebileceğine inanmak için mantıklı bir neden olmadığı sonucuna varıyoruz, ancak onu simüle edebiliyor.

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1. INTRODUCTION

In recent years, artificial intelligence has made significant innovative contribution to a number of field of areas, including public relations. Both the public and private institutions capitalize on the capabilities of this technology in areas such as strategic management, user interaction, crisis communication, projection, etc. Artificial intelligence enhances efficacy with automated content creation and customized suggestions. Present-day companies use this technology to form any concept more efficiently and quickly. As concerns the strategic planning, it provides strategic management support to companies using data analysis and projection technologies. For example, organizations are able to project the future trends using big data analysis and machine learning models and develop more accurate and effective strategies. It makes it easier for businesses to adapt to market conditions and helps them maintain a competitive edge.

This article examines the various methods of application of artificial intelligence in public relations with their benefits and prospects and presents the changes and areas of development in this field. The broader application of artificial intelligence in public relations demonstrates its role as a transformative tool as part of technological development. This technology is expected to develop further in the future with new opportunities for public relations and improvement of existing processes.

2. WHAT IS ARTIFICIAL INTELLIGENCE?

Artificial intelligence (AI) is one of the technological innovations used to replace human job in various fields (Bhbosale, S., Pujari, V., & Multani, Z., 2020). It is a field of science and technology that helps create smart machines and software solutions to perform tasks that require human intelligence. Artificial intelligence is a system that imitates human functions and uses databases such as "Big Data" to achieve high results in given tasks. AI, once considered a figment of imagination and seen fantastic, is now being applied in science, education, healthcare, banking and finance, commerce, logistics, aviation and many other fields. (Buchanan, 2005).

The history of artificial intelligence begins with certain claims made by philosophers and writers. Philosophers have proposed the concept of intelligent machines to understand the importance of being human. French philosopher René Descartes uses the metaphor of "mechanical man" to describe the possible use of intelligent machines. Writers such as Jules Gabriel Verne (19th century), Isaac Azimov (20th century) also spoke about intelligent non-

humans in their works. In 1942, the American writer Isaac Azimov wrote a short story called "Runaround" dedicated robots developed by engineers G. Powell and M. Donavan. This story inspires many scientists involved in the field of artificial intelligence, robotics, and computer science. Around the same time, English mathematician Alan Turing invented "The Bombe," a code-breaking machine deemed to be the first electromechanical computer. He developed this machine for the British government to crack the Enigma code used by the German military during World War II. In 1950, the scientist published the article "Computing Machines and Intelligence", which described the creation and test of intelligent machines, called the "Turing test". The "Turing test" is used to find the intelligence of a system: the machine is intelligent if a human cannot identify another human when interacting with a machine. In 1956, Stanford University computer engineering scientists Marvin Minsky and John McCarthy hosted the Dartmouth Summer Research Project on Artificial Intelligence (DSRPAI), a project that lasted approximately eight weeks. This program is considered the beginning of the spring of artificial intelligence.

A number of key qualities characterizing artificial intelligence:

- Simulates the human intelligent
- Ensures permanence by preventing data loss
- Makes quick decisions
- Helps in problem solving
- Helps to put emotions aside when making decisions based on facts (Srivastava, 2018)
- Disseminates information easily
- Artificial intelligence is capable of doing complex works that humans have difficulty or cannot do (Strong, 2016)
- Completes many tasks faster than humans
- Can detect unexplored areas
- Works with minimum error
- Has infinite functions
- Performs multiple functions at the same time (Wirkuttis, 2017)
- Ensures a higher success rate
- Can be programmed to run longer (Kohane, 2018)
- Does not guarantee an optimal solution
- Is unable to logically explain certain decisions
- Is unable to identify unsolved problems

- Is able to propose a wrong solution even with a small malfunction
- Improper use can cause irreversible errors (Srivastava, 2018)
- May lead to increased unemployment
- Has a limited ability to ensure creative approach to the solution

Artificial intelligence offers many advantages, beneficial for both individuals and the society. Nevertheless, the increased use of technology comes with its downsides. In the future, artificial intelligence will offer undoubtedly more qualities than it does now.

3. PUBLIC RELATIONS

Throughout history, public relations have been shaped by virtue of human interaction and information dissemination. It is a profession designed to shape and maintain the public image of organizations, individuals and brands, as well as influence public opinion and manage the relationship between an enterprise and its audience. The history of social relations is as complex dating back to ancient periods, as it has progressed in parallel with the development of human civilization. Nevertheless, the fundamental goals remain unchanged: to inform, persuade and create favorable public perceptions. From the age-old practices of ancient civilizations based on a rhetoric and oratory to persuade people in public gatherings to the sophisticated digital strategies employed in the 21st century, the evolution of "PR" represents the mindset and changing settings where societies communicate. Today, the importance of public relations as a basic principle of effective communication lies not only in the transmission of information, but also in the ability to shape them, create public discourse and ultimately manage the consequences of major events in business, politics, etc. Experts believe that Public Relations sector will continue to be an instrumental force in scripting, reputation management, and influencing the course of events in an increasingly complex global society, in line with its historical mission (joriwhitepr.co.2023).

4. APPLICATION OF ARTIFICIAL INTELLIGENCE IN PUBLIC RELATIONS

In recent years, artificial intelligence has rapidly entered the sphere of public relations, playing both a supporting and a decisive role. The content creation is the main sphere of influence of this technology. Artificial intelligence helps public relations professionals to come up with ideas, develop strategies, summarize, write and edit. More effective and creative results crop up with automated performance providing the teams with new ideas and tools to improve content quickly and accurately. It's not just about efficiency; AI's ability to analyze and interpret large amounts of data helps examine audience interests and behaviors.

Beyond content creation, public relations made extensive use of AI; it supports human creativity and intuition with powerful analytics and insights. (thumos.global,2024)

With increased use of artificial intelligence, public relations professionals manage the complexities of present-day communication more precisely and effectively. From real-time sentimentality analysis to predictive analytics, AI tools make the previously unattainable targets real. It is especially possible with the use of massive data sets such as Big Data and Data Analytics, which enable targeted campaigns to make smarter decisions. Artificial intelligence's ability to sift through large volumes of data and identify emerging trends enables public relations professionals to deliver their messages more effectively and deepen relationships with their audiences. Use of artificial intelligence in public relations causes changing effects in traditional approaches, making campaigns more individualized, responsive and effective.

The results of a survey on public relations conducted among 330 entities in Indonesia in 2020 brought to the forefront the use of use artificial intelligence in the processes of collecting news headlines, establishing relations with the media outlets, in social media management, distribution of newsletters and content design. (Chen, 2020)

The results of research with PR professionals and scientists published in The AI and Big Data Readiness Report 2021 by the Chartered Institute of Public Relations (CIPR), a UK-based prestigious public relations institute has grouped the use of artificial intelligence into 12 categories. In 2023, the number of these categories was increased to 18 as seen from the study called "Artificial Intelligence (AI) Tools and the Impact on Public Relations (PR) Practice", published by the same institute.

Scope of application of artificial intelligence in public relations:

- Monitoring and analysis
- Preparation of press statements
- Preparation of press releases
- Setup of strategic communication
- Customer services (robot operators, etc.)
- Listing of media organizations
- Development of multimedia products (composition of video clips and photo-slides based on the given text, playback of texts)

- Study of the needs of the target audience (or focus groups) and development of performance strategies

- Study and analysis of public opinion on the brand, campaign or persons representing the institution, development of future projections and action plans

- Immediate detection and prevention of activity that harms the institution's reputation

- Detection of fake information and multimedia products

- Automated response to e-mail, letter, fax and other requests

Media monitoring and analysis: Artificial intelligence has played a revolutionary role in media monitoring ensuring time-consuming works more efficient with their real-time execution. Advanced artificial intelligence tools analyze and sift through vast data for key insights into public sentiment, emerging trends and focus group activity essential for reputation management and strategic planning.

Data-driven audience insights: Automated data analysis and predictive analytics are key contributions of AI to public relations. These technologies allow a deep understanding of audience behavior and helps shape effective communication strategies.

Crisis management and preventive measures: AI's capabilities to analyze real-time data and provide automated response during crises are indispensable. Tools like ChatGPT, Gemini, Copolit offer immediate support in managing communications, maintaining consistency across channels and providing insights for strategy adjustments.

Audience analytics: Advanced AI analytics help gain deeper insights into stakeholder demographics, psychographics, and behaviors. It leads to audience targeting, message personalization and campaign effectiveness, while also transcending the boundaries of traditional public relations dimensions.

Social media analytics and trending: Big social media platforms like Facebook and Instagram use artificial intelligence to analyze user data to identify trends and shape marketing strategies. For instance, they use machine learning to measure customer reactions and identify demand for any product they advertise using social media.

Chatbots and virtual assistants: Many companies capitalize on chatbots that automatically answer the questions of customers. For instance, robots of banks and telecommunications companies answer inquiries and perform simple operations, which help provide uninterrupted service to customers.

5. AI's IMPACT ON PUBLIC RELATIONS IN SOCIAL MEDIA

The number of Internet users worldwide, also in Azerbaijan gets higher day by day. According to "www.datareportal.com", a web platform that analyzes the worldwide use of the Internet and social media, the number of internet users in Azerbaijan stood at 9.19 million at the start of 2024. In January 2024, there were 6.10 million active social media users in Azerbaijan, which is equal to 58.4 percent of the total population. These numbers suggest social media stands at the heart of public relations strategy in today's digital age. The pace of reaching large audiences, interaction and feedback possibilities have made social media an indispensable tool in PR activities. (datareportal.com,2024)

With the influence of artificial intelligence, social media experiences continuous development, achieves intensive use and offers wide range of opportunities for innovations, while also expanding its scope in public relations. In areas such as branding and content creation, crisis management, analysis and evaluation, social media has become an indispensable part of public relations strategies. Brands and organizations need to properly shape and manage their social media strategies to succeed in the digital age. In view of all the listed qualities, social media can be determined as an "interactive communication channel that allows for two-way interaction and feedback".

At present day, "Facebook", "Instagram", "X" (Twitter), "Linkedin", "Whatsapp", "Telegram", "YouTube" are among the most actively used networks. Each of these channels appeal to specific target audiences although they all offer favorable conditions for information dissemination. For instance, the "Linkedin" network is used as a platform for sharing more about the business environment and career, while "Facebook" serves as a network to post informational articles. "X" offers opportunities for users to have relaxed discussions and free thinking. "Instagram" is more about pictures than writing, whereas "YouTube" serves as a platform to appeal to the masses. It is necessary to first determine the right target audience and interest of the platform to ensure that these networks are used successfully with the application of artificial intelligence and all users receive information effectively. As soon as all these listed qualities of the platforms are mastered, a crowd-oriented action strategy would help deliver the intended information to more people. The use of slides, posters, and pictorial texts are preferred to make the content more interesting. Research show that posters and images are the first to be noticed before texts on social media. The appealing posters ensure that information is reached to the target audience quickly. The founders of social media

acknowledge that artificial intelligence makes it also possible to achieve photo, video and a large number of other visual solutions.

Another crucial benefit of social media platforms is their ability to measure the public image of the brand or organization, as well as the audience's reaction to the shared content. The monitoring function of artificial intelligence makes it possible for institutions to measure the percentage of content likes and comments made by the followers on the platforms where they are active. They can clearly see the areas where they need to change and develop. In addition, these channels allow direct communication with users. Users are allowed to communicate with the capabilities of artificial intelligence and provide their views freely if they have any questions, suggestions or complaints.

In addition, social media platforms provide PR professionals with powerful analytical tools that allow them to measure the impact and effectiveness of disseminated information. They can deliver effective content to ensure optimized PR and communication strategies and target audiences more accurately. Analyses by artificial intelligence help determine the age statistics of focus groups, their distribution by region and country, and the sphere of interest.

Experts believe that the integration of artificial intelligence with social media could cause revolutionary effect on PR with its advantages of enabling and enhancing direct communication, facilitating crisis management and providing powerful analytical tools. With the intensive introduction of more complex algorithms and machine learning technologies for content creation, it will be possible to analyze views and optimize marketing strategies on social media platforms. Furthermore, chatbots will be equipped with more intuitive and active user interfaces ensuring accuracy and usability for content. Artificial intelligence will provide deeper analysis of public data, which will play a decisive role in strategic decision making.

6. CONCLUSION

The application of artificial intelligence in public relations enhances efficiency, saves time and allows the teams to keep focusing creativeness with the automated performance of many repetitive operations. This technology is also making revolutionary contributions to content management and strategic planning taking the data analysis and projection to a new level in the information society. Thanks to the analytical power of artificial intelligence, companies and organizations alike are in a position to better understand user behavior and foresee customer needs. It enables them to build more personalized and effective relationships with customers.

Artificial intelligence is expected to develop rapidly in the future with its expanded use in public relations. This will facilitate the emergence of new areas of application with innovative solutions. Public relations professionals will capitalize on the opportunities offered by artificial intelligence to develop and implement more effective and applicable strategies. Consequently, the incorporation of artificial intelligence into public relations will help companies and organizations build more effective relationships with the public based on sustainable management.

Accordingly, the use of artificial intelligence in public relations is a complex process combined with strategic thinking and creativity along with its emergence as the result of technological development. This technology sets new standards applicable to public relations in today's world and lays the foundation for greater innovations for the future.

AI's unique power in public relations is its ability to sift through countless social media texts and journalistic articles to analyze customer feedback and provide real-time insights into the effectiveness of marketing campaigns. It helps public relations professionals to save countless hours of reading and researching. AI takes over all repetitive tasks on a daily, weekly and monthly basis. There is no doubt that the incorporation of artificial intelligence into public relations will change the way we approach communication. It also helps reveal the challenges for communication professionals to develop new skills or polish old habits. Despite the revolutionary innovations of artificial intelligence, it still seems impossible to fully automate public relations because of the reliance on human emotions.

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