

The Integration of Artificial Intelligence into Public Relations Practices A Theoretical and Analytical Perspective

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Abstract

The topic of artificial intelligence has arisen as a prominent and significant field of research, generating growing attention from scholars and academics across various specialties. In this context, the present research paper seeks to explore the adoption of artificial intelligence tools in public relations activities, with a view to identify the most commonly AI tools that contribute to enhance public relations effectiveness. Furthermore, the study also strives to analyze the challenges encountered by PR professionals while using AI tools as a part of their communication strategy.

Keywords: *Artificial Intelligence, Public Relations.*

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Introduction

Over the past years, the world has witnessed a deep transformation in various spheres of the human life, stimulated by the remarkable advancement of information and communication technologies, and specifically in the field of artificial intelligence (AI), which is considered one of the most crucial outcomes of the technical advancement which the world has known. Artificial intelligence has evolved beyond being just a technological tool, to become an essential element of decision-making, data analysis, and the establishment of communication strategies within organizations. Artificial intelligence software now has an important impact in shaping how companies interact with their audiences. Due to the use of advanced data processing and predictive intelligence, organizations became able to expect consumer behavior, predict public reactions, and develop more efficient communication strategies. Furthermore, the integration of AI tools to facilitate the routine communication tasks permits organizations to focus on more crucial operations such as: strategic planning, campaigns execution, and performance monitoring.

From the same perspective, public relations represents a fundamental element of an organization's communication strategy, as it serves to build balanced and positive relationships between organizations and their publics through the usage of effective communication and the development of a positive organizational image. On the other hand, the technological development outcomes have brought new challenges for public relations practitioners, notably with the expansion of social media usage, the huge amount of information transmitted through digital channels, and the challenge of monitoring content distribution. In this context, artificial intelligence (AI) has emerged as a key partner for public relations practitioners, offering analytical and predictive tools that permits organizations to respond quickly and accurately to both internal and external publics.

Building on the above, this study aims to examine the different applications of artificial intelligence in the field of public relations, from both a theoretical and analytical perspective, and assess their impact on the communication effectiveness and performance of organizations. Based on this we can formulate our problem question as follows: **how do companies integrate artificial intelligence tools into public relations practices?**

This central question gives rise to the following sub-questions:

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- What are the main AI tools used in public relations activities?
- How does the use of AI impact the efficiency of public relations activities?
- What are the main challenges faced by companies while integrating AI tools in public relations activities?

Significance of the Study:

The significance of this study lies in its contribution to enriching the academic discussion on the duality of "artificial intelligence" and "public relations", providing a scientific framework to understand how can (AI) be effectively implemented into the development of PR strategies.

Moreover, the study sheds light on a set of technical applications of artificial intelligence tools in the domain of public relations, facilitating for PR practitioners the development of better awareness about AI outputs, which represent an indispensable technological development un shaping the future of public relations.

Objectives of the study: this study seeks to:

- Identify the most significant AI tools used in public relations activities.
- Establish how the use of AI technologies impacts the efficiency of public relations activities.
- Explore the challenges faced by companies when integrating AI technologies in their public relations strategies.

Theoretical Framework of Artificial Intelligence.

Definition Of Artificial Intelligence.

Defining the concept of artificial intelligence is an essential step for understanding its nature and historical development. Since its appearance in the mid-twentieth century, this field has achieved remarkable progress in the concept and research methodologies. The definitions given to this concept vary according to the different perspectives adopted by researchers and theorists, some consider it as a technical system that simulates human behavior, while others see it as a science filed that aimed at enabling machines to learn and think.

The term "Artificial Intelligence" (AI) originates from the Dartmouth conference of 1956. In august of that year, prominent scientist including John McCarthy, Marvin Minsky, Claude Shannon, Allen Newell and Herbert Simon gathered at Dartmouth College in Hanover, New Hampshire USA, to explore how machine could replicate human learning abilities. It was during this conference that the concept of artificial intelligence was formally introduced. The Dartmouth conference is widely regarded as a pivotal event in the history of AI. Making the emergence of AI distinct field of study and sparking the interest of numerous researchers. (Giang, Ma, and We, , p2).

Artificial intelligence was defined by the US Association for the Advancement of Artificial Intelligence (AAAI) as: "The scientific understanding of the mechanisms underlying thoughts and intelligent behavior and their embodiment in machines". (Kumar, 20219, p2).

This definition highlights artificial intelligence as both academic discipline and practical field, focusing on the process of understanding intelligence and implementing it in machines.

Frank Chen, a venture capitalist defined AI in terms of five different aspects: logical reasoning, knowledge representation, planning and navigation, natural language processing and perception. (Kumar, 20219, p2).

In this definition, the researcher draws attention to the complex nature of AI, highlighting both the cognitive processes and the practical abilities. Moreover, it can be stated that Chen's definition correspond with the applications of AI in the field of public relations, where some aspects such "planning and navigation" and "language processing and perception" can lead to greater audience engagement and more effective communication strategies.

Artificial Intelligence, sometimes called "Computational Intelligence", is an interdisciplinary field of study drawing heavily on domains including: computer science, neuroscience, cognitive science, engineering, logic, mathematics, statistics, natural sciences, physiology, ethics, linguistics, psychology, and philosophy. Artificial intelligence is often used interchangeably with "machine learning" and "deep learning". (Belkasmi, 2022, p273)

Based on the preceding definitions, artificial intelligence can be defined as a branch of computer science that deals with developing systems that are capable of executing tasks that require human intelligence. These systems are intended to: adapt, make decisions, and enhance human life in multiple spheres.

Objectives of Artificial Intelligence:

Artificial intelligence is recognized as an advanced research field that seeks to imitate human mental abilities, which requires defining its essential objectives for understanding the theoretical and practical framework upon which it is based. The following section highlights the most significant important objectives of artificial intelligence:

- **Imitating human mental abilities:** the main goal of AI is to enable programs and machines to think, learn, and solve problems reasonably in the same way as humans.
- **Building the ability to analyze, grasp, and tackle large quantity of data:** AI technologies aim to generate meaningful knowledge and practical insights that support organization in the process of decision-making.
- **Optimizing effectiveness and productivity levels:** throughout computerizing operations, minimizing mistakes, and enhancing decision-making across high-level analytical strategies.
- **Providing intelligent and advanced platforms able to deal with complicated issues:** these platforms' capacity exceeds traditional human potential in particular fields namely pathological identification, drug discovery, and climate forecasting.
- **Granting interactive digital engagement for users:** Through intelligent assistants, computational linguistics, and numerous technologies, that facilitates daily human life, such as immersive reality infrastructures.
- **Enhancing safety, security, and risk governance:** In particular, domains including intelligent transportation systems, traffic systems, medical tracking systems, and cyber security.
- **Analyzing new horizons in research and innovation:** by fostering experimentation and advancing significant discoveries.

*Theoretical overview of Public relations.**Definition.*

Public relations has known a long evolutionary journey with deep historical roots that can be observed across different civilizations and epochs.

In ancient cultures such as Pharaonic Egypt, Mesopotamia, Greece, and Rome, kings and elites made conscious use of symbols, figures, rituals, and lectures in order to reinforce their leadership, shape public opinion, and validate power. These practices, without any official recognition as being a form of public relations, indicate the early human awareness of influence and image-building as mechanisms of governance. Over the period of the Middle Ages, communication strategies were strongly associated with religious and political authority, the church drew upon sermons, iconography, customs, and rituals to influence the general public.

Yet, during the modern era, public relations transformed into a more structured and methodological field. The growth of mass communication, industrial economies, and democratic engagement prepared the ground for more specialized approaches to public communication. Owing to the work of early pioneers and theorists, public relations progressively obtained a formal professional status, reinforced by foundational frameworks, ethical standards, and academic background, shaping it into a vital function in modern society.

Public relations was defined by "**Cutlip, Center and Broom**" as follows: "it is the management function that establishes and maintains mutually beneficial relationships between an organization and the publics on whom its success or failure depends". (Watson and Noble, 2007, p5).

According to the U.S. academics **Botan and Hazleton**, public relations serves as the definitional label for the process of attempting to exert symbolic control over the evaluative dispositions and subsequent behaviors of relevant publics or clienteles. (Watson and Noble, 2007, p6).

Botan and Hazleton's definition highlights the key function of public relations in influencing publics' perceptions and behaviors in order to foster long-term relationships with stakeholders and maintain a positive image for the company.

Moreover, **Rex Harlow** emphasizes that Public relations is a distinct managerial function that contributes to establishing and maintaining two-way communication to achieve understanding, collaboration, and acceptance between an organization and its stakeholders. This function encompasses the management of problems and issues and facilitates management in remaining informed about public opinion trends and engaging with them. It defines management's role in promoting the public role as well as helping management adapt to change, and serves as an early warning system to predict upcoming trends, leveraging research and communication as key instruments. (Frinech and Berrah, 2021, p124)

The Key Functions of Public Relations.

Considerable differences exist among scholars concerning the designation of public relations functions, in view of the fact that these functions vary according to the organization's objectives and to the status of public relations within it. In general, we can summarize the core functions of public relations as follows:

- **Scientific research:** the scientific function of public relations seeks to collect information and data required by companies in order to use it in decision-making. This information focus on the mental image formed by audiences about the company, as well as on their opinions concerning its products and services. Regarding to public relations' objectives, the research function aims also to identify trends and changes relevant to the company's field of activity, across administrative, marketing, and legal dimensions.

- **Strategic planning:** this function entails defining short-, medium-, and long-term objectives, which become transformed into practical and actionable programs. Strategic planning in public relations involves also developing implementable and ready-made plans to manage potential threats and risks that might turn into serious crisis capable of threatening organization's stability.
- **Coordination:** public relations performs a coordination function at multiple levels, aspiring to foster harmony and comprehension between:
 - The company and its audiences.
 - The administration and its employees.
 - The internal and external environments.
- **Production:** public relations managers are tasked with producing all of the organization's printed communication materials, such as booklets, brochures, publications, and magazines, as well as organizing corporate events, such as festivals and conferences.
- **Communication:** public relations managers are expected to establish the organization's communication strategy both internally and externally, as well as managing digital communication through social media platforms and the official website of the company.
- **Evaluation:** public relations conducts periodic evaluation in order to analyze and measure the extent of its success in attaining its goals and executing its strategy. Evaluation is considered as a strategic function that facilitates the detection of mistakes and shortcomings in order to address them.

The Significance of Ppublic Relations in Modern Society.

Public relations plays a significant role in modern society as it serves as a core connector between organizations and their internal and external public. Within a framework dominated by fast and interactive communication, digital connectivity, and greater public awareness, public relations assists in:

- Building trust and ensure organizational credibility.
- Facilitating the flow of information between organizations and stakeholders.
- Enhancing dialogue, understanding, and reciprocal respect between organizations and their audiences.
- Fostering social cohesion through the promotion of transparency and ethical behaviors.
- Building positive image and good reputation for organizations.

Moreover, public relations helps brands reach their target audience by building relationships with journalists, creating news worthy stories, and pitching those stories to the media. It also helps building credibility and trust by showcasing the brand's positive traits, achievements, and values. In crisis, PR steps in to protect the brand's reputation by providing a clear and transparent response to the situation. At its core, PR is about building and maintaining relationships with stakeholders: journalists, influencers, customers, or the public at large. by engaging with these groups and effectively communicating the brand's message, PR helps brands build a strong and positive image in public's eye. (Eriziwosa, 2023, p2).

*Public Relations and Artificial Intelligence.**Practical Applications of Artificial Intelligence in the Field of Public Relations.*

The use of artificial intelligence in public relations was first addressed in 2018 in the report "Human Steel Needed" drafted by CIPR² (Chartered Institute of Public Relations), which sought to assess the impact of artificial intelligence on the public relations industry over a 5-year period. (Zakrzwska, 2023 , p 33)

This report emphasizes the critical need for PR practitioners to enhance their skills to ensure effective strategies that correspond to the complex nature of the technological environment.

Christopher Ben, an expert in AI marketing, realizes that AI has brought three essential advantages to public relations practitioners: automation, acceleration, and accuracy. To rephrase, artificial intelligence makes public relations tasks faster, less expensive, and more optimized, which benefits both organizations and publics as well. The implementation of AI in the PR industry contributes to reducing errors caused by individuals. In this context, experts anticipate a coexistence between AI technologies and individuals in the workplace, progressively leading to smarter and more creative work. (Saber, 2022 , p325)

In daily operations, AI has begun to support PR professionals in many repetition-based tasks, such as drafting press notes, transcribing speeches, creating media lists, writing emails and producing reports. While the list is considerable, the most noteworthy asset is AI-powered analytical tools. These tools are able to identify trends, quantify sentiments, and generate accurate insights in real time. These data driven insights would specifically inform PR professionals' approaches and allow them to proactively design corporate strategies. (Liew,2021 , p26)

As a result of the very rapid development of artificial intelligence and its application in the public relations industry, further studies and reports have emerged. According to the state of AI in PR survey, 64% of PR professionals reported that they have already used generative artificial intelligence. Most PR professionals report an increase in the quality of their work and admit to completing projects more quickly using AI. 74% of respondents say they feel artificial intelligence has improved the quality of their work, and 89% of them state artificial intelligence helps them complete projects somewhat or much faster. (Zakrzwska, 2023 , p 34)

Based on the above, the utilizations of AI in the field of public relations can be reviewed as follows:

- **Audience relationship management:** artificial intelligence technologies can optimize audience relationship management through adapting messages to the public's interests and employing chatbots to provide prompt responses to clients' enquiries.
- **Anticipating trends and risks:** artificial intelligence permits to public relations practitioners the expectation of the upcoming trends regarding customers behavior and market dynamics, in addition to the identification of probable risks and crisis before their occurrence. This allows public relations team to develop proactive strategies in order to hinder the adverse effects the anticipated issues that can negatively impact the organizations' image and reputation.
- **Data analysis and media tracking:** AI technologies facilitates the analysis of huge amounts of data from social media, emails, and websites, this allows the PR team to build clear understanding of public opinions and topic relevance, helping them make sound decisions that serves the organizations' interests.
- **Content creation:** AI can assist in creating media content including: articles, digital posts, newsletters, emails, and multimedia content scripts, by ensuring clear and impactful messages appropriate for the target audience.

- **Automation of repetitive tasks:** AI automates certain routine tasks, such as generating content drafts, analyzing data, scheduling posts on social media, and optimizing content. This permits to PR teams to focus on major issues such as strategic planning and reputation management.
- **Optimizing audience engagement:** artificial intelligence became an essential tool of analyzing publics interaction behavior and adapting messages in accordance with their interests. This leads to enhance communication quality and campaigns effectiveness.
- **Tailoring marketing messages:** AI is used for generating personalized messages and contents that aligns with each public segment according to their digital behavior.
- **Evaluation of performance and impact:** AI technical tools permits for PR teams the precise measurements of media campaigns by providing valuable insights that help the team in evaluating the present, forecasting the future, and making decisions based on it.
- **Management of digital reputation:** AI tools assist in tracking the negative feedback and any potential threat that may arise in the future, which enables the organization to maintain its position and protect its image.

Artificial Intelligence Tools in Public Relations:

Artificial intelligence tools used in public relations can be classified into the following main categories:

-Emotions analysis tools: understanding the publics' sentiments and perceptions towards an organization, is considered as one of the most complex functions of public relations. Thus, PR practitioners can use the following artificial intelligence tools to measure emotions:

- Hootsuite Insights: this intelligent platform can determine whether discussions about the organization are: positive, negative, or neutral.
- Brandwatch: it is a platform that enables organizations to understand how audiences feel about them through analyzing thousands of posts and conversations on social media.

-Content creation tools: artificial intelligence tools are required for generating ideas and creating content in public relations. For this purpose, the following tools can be mentioned:

- Copy.ai: it is a platform used in public relations and digital marketing for writing promotional content, social media posts, emails, it permits to generate high quality content rapidly and effectively.
- Jasper AI: this AI tool assists with generating content and optimizing it, commonly used by PR practitioners in writing creative and innovative web content.

-Chatbots tools: they are digital platforms that permit organizations to create automated conversational agents for interacting with the audience, such as:

- Drift: An AI platform enables companies to use chatbots to communicate with customers and answer their questions.
- ManyChat: it is a platform used in public relations, often for enhancing audience interaction and supporting customer service.

The evolution on artificial intelligence can benefit public relations industry only when organizations take the initiative to adopt it rather than reject it. According to (Rogers 2019), the use of AI in public relations

activities doesn't represent a threat, yet, it leads to enhance its efficiency, particularly in tasks involving data processing. Therefore, Rogers emphasized that PR practitioners stay open to adopting AI in their practices. Within the same framework, he noted that there exist multiple levels in which the human touch remain preeminent, for instance, artificial intelligence is unable to exceed human soft skills such as trust and relationship-building, and it's also incapable of replacing activities that require creativity, critical thinking, and leadership abilities. (Harmoush, 2015, p530)

Challenges Of Using Artificial Intelligence Technologies in Public Relations Activities.

The integration of AI technologies into public relations industry has brought significant advantages, yet it also includes a set of challenges that has to be mentioned.

The PR industry, which relies on creativity, empathy, and human connections, could suffer from an overreliance on technology. AI often lacks "**a human touch**", which can result in mechanical or generic content that fails to connect with audiences on an emotional level. Furthermore, the **high cost** of implementing AI technologies can also represent a barrier for smaller companies. Ethical and gender biases, which sometimes emerge in AI algorithms, can lead to **unethical content**, while data misuse raises privacy and security concerns. Relying on AI might also diminish the development of traditional PR skills such as writing, strategy creation, and interpersonal communication. (Smart vision, 2024)

In addition, data quality and accessibility presents a significant matter, as AI technologies necessitate wide amount of accurate data to achieve effective performance, and a considerable number of organizations still lack appropriate data management systems. On top of that, technical challenges can hinder the usage of AI in public relations, especially for companies with insufficient technological infrastructure. Equally important, the lack of technical skills among PR practitioners can also present a barrier to the use of artificial intelligence.

Most significant of all, mental barriers and resistance to modern technologies, notably artificial intelligence, can prevent a company from achieving its goals effectively, therefore, organizations have to acknowledge cognitively at first the inevitable result of change and adapt to the standards set by the digital environment.

Conclusion:

The integration of artificial intelligence into public relations activities represents a significant leap at both communication and technological level, this transformation has reshaped the organizations' communication and management strategy, particularly the communication process with audiences in terms of content and tools. Thanks to artificial intelligence, organizations have been able to improve efficiency, predict outcomes, automate repetitive tasks, and enhance content quality and audience engagement. These positives outcomes, enable public relations practitioners to anticipate risks and and establish data-driven decisions, which positively contributes to the organizations' image and digital reputation. The research also highlights the essential AI tools used in the field of public relations, which were classified according to their function into emotion analysis tools, content creation tools, and chatbots tools.

However, the study indicates that the adoption of AI tools in PR practices involves certain technical and ethical challenges, such as data quality issues, inadequate expert personal, high implementation cost, and hesitation to accept change.

Overall, considering the numerous advantages that artificial intelligence offer to public relations, it can be concluded that the use of AI in the field of PR has been inevitable. For this reason, organizations have to accept the technical change and work on adapting to it, by training their workforce to acquire the adequate skills, and sustaining the human touch when necessary.

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