

# How Artificial Intelligence is Transforming the Public Relations Profession: Expected Practices from a Sample of PR Practitioners in Bahrain

Dr. Naglaa Elgammal <sup>1</sup>

<sup>1</sup>Mass Communication and Public Relations Department, College of Communication and Media Technologies,  
Gulf University, Sanad 26489, Kingdom of Bahrain

## Abstract

Institutions all over the world vary in their adoption of artificial intelligence (AI) technologies in the workplace, despite the obvious benefits. Use of AI-based practices differs from community to community according to many factors. This study aimed to explore how widely AI is used in the public relations (PR) sector in Bahrain, and to investigate how AI might transform the PR profession and affect PR professionals in the future. Based on in-depth individual interviews with a sample of PR practitioners in Bahrain, the study found that mechanical intelligence was the most commonly used type of AI in the PR field in Bahrain, followed by analytical intelligence and, to a lesser extent, intuitive intelligence. Empathetic intelligence was not used at all. Although Bahrain's Digital Government Strategy 2022 emphasized the commitment to transforming its services through emerging technologies, and despite the actual application of AI in various fields as a core of the Bahrain 2030 vision, there is still a low percentage of AI adoption in PR practices in both governmental and private institutions in Bahrain. The study showed that rapidly evolving AI technology is transforming the speed and efficiency of PR practices. PR professionals need to be adept at using AI technologies to increase the effectiveness of their practices and functions.

**Keywords:** Artificial intelligence (AI), public relations (PR) profession, AI job replacement theory, Bahrain.

## 1. Introduction

Technological advancements such as artificial intelligence (AI), machine learning, virtual reality, big data, and robotics are increasingly important in everyday life. We live in a technologically driven world, and evolving technology has become one of the most important forces of change and innovation. Technology-driven practices offer businesses flexibility, change, and innovation, and aid in developing new solutions that perform well in the workplace.

AI technologies differ from traditional software in that they are smart; they not only analyze data on a scale, but also predict what that data means [1]. AI has been defined as "a sophisticated application of technology that has the ability to learn, improve itself, identify images, read and understand texts or hear and understand" [2, p. 5], while AI in the communication sequence has been explained as "computational systems that involve algorithms, machine learning methods, natural language processing, and other techniques that operate on behalf of an individual to improve a communication outcome" [3, p. 90]. Because AI in communication and media has such a powerful capacity to imitate human intelligence and

make use of big data shared online by humans, many people are now asking whether, in some cases, AI can replace media practitioners. Thus is AI paving the way for the entire communication profession.

## 2. Theoretical Background

### A. AI in the Public Relations Field

Despite the fact that "experts predict that 50% of occupations in corporations today will no longer exist by 2025" [4, p. 4], the literature shows that public relations (PR) professionals will not be replaced by robots. Scholars have discussed how much of what we do in PR will be replaced by AI-powered systems. AI in PR has been defined as "technologies showing humanoid cognitive abilities and performing humanoid functions in undertaking public relations activities, independently or together with public relations practitioners" [5, p. 734]. PR agencies benefit from AI-enabled systems in terms of predicting media trends and monitoring social media [6]. Researchers have emphasized that AI has self-learning capabilities and provides a tool that can respond autonomously to social media posts, queries, tweets, and other texted messages. AI has the potential to automate some tedious, repetitive, and mundane PR tasks, such as writing data-driven stories, organizing and updating

media lists, assisting in crisis management, and converting audio to text [7].

AI-powered machines can send PR managers instant alerts about online crises, negative word of mouth, and inaccurate or fake stories, enabling practitioners to respond quickly and effectively [8]. AI can find, schedule, manage, and report on social media content; it can increase the efficiency of PR by assisting practitioners in making creative decisions based on data, facts, and trends rather than gut feelings [9]. Applying AI in the PR industry means faster results; it allows PR specialists to process statistics and any other type of data much more quickly [10] and keeps messaging to the point, based on big data analysis and other relevant trends [8].

AI impacts all communication fields, including the PR profession. The impact of AI on PR practices differs from one society to another, according to many factors. This study aimed to investigate the current use of AI in the PR field in Bahrain, and how this is impacting the PR profession. The study considers how PR professionals might be affected by AI practices in the future and the opportunities and challenges that they may face, based on the points of view of a sample of PR practitioners in Bahrain. The research context was limited to Bahrain only.

### 3. Literature Review

Many research papers have investigated the pros and cons of AI and its impact, opportunities, and potential challenges for the PR profession.

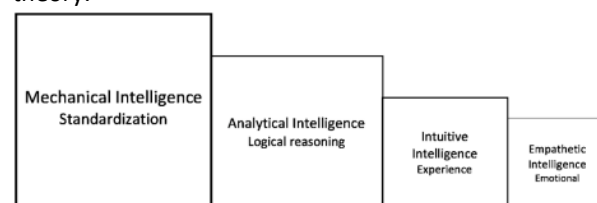
A recent paper [11] concluded that the growth of PR companies that use AI is higher than those that do not use it, and provided an insight into how AI can be used to develop ideas about gaining new skills in the PR profession. Another study [12] found that TrendKite, AirPR, and Hootsuite are the tools most widely used by PR practitioners who apply AI technologies to improve PR tasks and communication functions. One author [13] concluded that AI supports PR functions by maximizing efficiency in communication with all stakeholders and can effectively help measure the return on investment of PR efforts, and confirmed that professionals need to be adept at using AI technologies to increase the effectiveness of PR functions. A recent case study [14] found that certain PR jobs, such as writing news, news analytics in the media, social media management, and image and video editing technologies, have been replaced by the development of big data and AI technologies.

One scholar warned that AI has the potential to produce redundant people with nothing to offer their societies [15]. Others stated that using AI in PR could result in a “lower perception of transparency and authenticity” [5, p. 12]. Meanwhile, there are some serious reputational threats and complex ethical issues that PR professionals must be prepared to address when applying AI technologies [16].

### 4. Theoretical Framework

The theoretical framework for this study was based on the AI job replacement theory, which aims to describe and predict how AI might replace tasks and jobs and change the way services are delivered. It distinguishes four levels of intelligence: mechanical, analytical, intuitive, and empathetic [17]. Mechanical intelligence is the ability to perform routine, repetitive tasks automatically, which appear not smart but is necessary for many daily tasks [18]. Analytical intelligence comprises data analytics, information processing, mathematical skills, logical reasoning, and logical reasoning [17], and can be used for problem-solving in addition to performing complex and predictable tasks. Intuitive intelligence is the ability to think creatively and adapt effectively to new situations [19]. It includes a high level of professional thinking skills that require creative problem-solving. Finally, empathetic intelligence is the ability to understand others’ emotions, respond appropriately, and influence people’s emotions. It includes interpersonal and social people skills that enable humans to be sensitive to others’ feelings [17]. Generally, this theory confirmed that job replacement occurs first at task level (mechanical, and analytical levels) followed by the job level, which is most complex jobs (intuitive and empathetic).

The following figure illustrates the four levels of intelligence according to the AI job replacement theory.



**Figure 1. The four levels of intelligence (AI Job Replacement theory).**

### 5. Method

This qualitative study relied on in-depth individual interviews with a sample of PR practitioners in Bahrain. The study sample consisted of 31 PR

practitioners (17 from governmental and 15 from private sectors). The interviewees included 22 males and nine females, aged from 23 to 56 years. Interviews were conducted between April 20 and May 10, 2023. In-depth individual interviews are “typically seen as the gold standard in qualitative research” [20, p. 7]. This method provides much more detailed information than what is available through other data collection methods [21, 22]. Using in-depth interviews in this study as a qualitative data collection method allowed the researcher to collect a large amount of information about the participants’ perceptions of how AI is transforming the PR profession in Bahrain. Four pilot interviews were conducted to ensure that the questions were understandable. The average duration of each interview was approximately one hour.

Participants were asked to express themselves freely on any issue relating to the main topic of the study. Discussions were conducted using hybrid mode (face-to-face and through Zoom). The researcher encouraged the respondents to formulate their answers by asking clearly stated questions in a semi-structured interview format. The interview guide contained the following questions: 1. What is the current status of using AI in PR practices in Bahraini public institutions and private businesses? 2. How is the implementation of AI going to impact the jobs of the PR profession? 3. Can intelligent algorithms or robots replace PR practitioners? 4. What kind of opportunities will AI-powered systems bring to the PR profession? 5. What are the challenges that might affect the application of AI in the PR profession?

## 6. Results

### **The Current Use of AI in PR Practices in Bahraini Public Institutions and Private Businesses**

First, the participants pointed out that digital transformation is a key component of Bahrain’s Economic Vision 2030, a national development plan based on fairness, sustainability, and competitiveness. Furthermore, Bahrain’s Digital Government Strategy 2022 emphasized the country’s commitment to transforming its services using updated technologies. Regarding the current use of AI in the public sector in Bahrain, there was a consensus between the interviewees that Bahrain is considered one of the Arab countries that recognizes the importance of AI in streamlining processes and strategic decision-making across all governmental sectors. They confirmed that

Bahrain applies AI in various fields and considers it a major source of sustainable development, which is a core of Bahrain’s 2030 vision. The participants mentioned many fields in which Bahrain makes use of AI, including agriculture, education, smart cities, smart traffic control, smart cooling infrastructure, and smart banking. Bahrain possesses all of the elements required for the localization and development of cutting-edge AI technologies, including a robust ICT infrastructure, highly skilled human talent, and supportive national initiatives.

Regarding the current use of AI in the PR sector specifically, there was a consensus on the importance of AI in streamlining and transforming service delivery for governments. Despite the increasing interest in using AI in many areas of the public sector in Bahrain, the participants pointed out that, on average, 75–80% of PR tasks in the governmental sector in Bahrain are no-tech zones. This percentage is much lower in the private sector (30–35%), which is more oriented to using AI in PR tasks and benefits from more AI/technological support. The participants predicted that use of AI will expand to 75% of the total PR tasks in both governmental and private sectors within the next five to ten years. Referring to the AI job replacement theory, the study sample agreed that mechanical intelligence is currently the type of AI most widely used in PR in Bahrain, followed by analytical intelligence and, to a lesser extent, intuitive intelligence; they agreed that empathetic intelligence is not currently used.

In this regard, the participants clarified that mechanical intelligence is dominant in managing all administrative PR work, such as scheduling meetings, scanning huge amounts of data, preparing and updated media lists, helping in crisis management, sending automated emails, setting due dates, sending automated messages through social media, structuring meeting notes, sending out follow-ups, and helping in writing many forms of PR forms, especially press releases. Analytical intelligence is used for automated social media and big data analysis.

### **• Impact of AI on Transforming the PR Profession in Bahrain and Expected Opportunities**

The interviewees confirmed that using AI will create a pivotal shift in the quality and speed of performing PR tasks; AI will increasingly assist PR practitioners in the near future, particularly with mundane and administrative tasks.

The participants clarified that, going forward, AI-powered systems can help transform the PR profession in Bahrain through:

- Identifying data trends, making it easier to comprehend what is going on in the media landscape.
- Tracking media impressions, analyzing audience's sentiments, monitoring communications across various channels and platforms, and writing reports regarding media coverage.
- Generating targeted media lists for interviews or press releases.
- Automating emails for all stakeholders.
- Assisting in the development of communication strategies.
- Predicting potential crises before they occur, based on data driven from the company itself and other open sources.
- Assisting in managing social network accounts of public sector and business by creating content and identifying influencers.
- Producing important reports and insights based on analyzing related data.
- Creating content for social media campaigns and making optimization recommendations by evaluating the effectiveness of these campaigns.
- Monitoring the reputations and audience impressions of companies and brands.
- Helping to establish and monitor media relations.
- Generating unique and special content for each journal.
- Producing creative content by using ChatGPT, currently the most well-known AI tool in the PR departments of Bahraini organizations.
- Personalizing messages for different categories of target audiences.
- Monitoring communication across various channels and platforms.
- Generating PR campaign ideas and creative writing, especially through storytelling, to draw the public's attention to the brand story.
- Creating and delivering targeted messages using AI-based personas efficiently.
- Helping to investigate consumers' buying habits in order to create content for them.

- **Can Intelligent Algorithms or Robots Replace PR Practitioners?**

The interviewees stated that it is critical to distinguish AI (an umbrella term for machines that mimic human intelligence) from robotization. Most practitioners

indicated that AI would improve PR professionals' work but will never replace imagination and human creativity; however, a few argued that technological innovation, such as robots, will eliminate some administrative PR jobs.

- **Challenges That Might Affect the Application of AI in the PR Profession**

First, the participants pointed out that PR practitioners need strong relations with media, ministries, and the community to achieve their daily activities. Some PR activities, such as live presentations at special events, answering the public persuasively, event planning, project management, and any other activities that need strategic communication and planning, are hard to automate with AI technologies.

The second point raised by the interviewees was creativity in PR. Creative work is an essential part of the PR profession, requiring human intuition, critical thinking, and the ability to influence others, especially using emotional intelligence and empathy. These skills are still difficult to automate using AI.

At the same time, AI is being trained on what already exists under human monitoring. For example, while ChatGPT can be a powerful tool in the daily work of the PR profession, it still requires human intervention through monitoring and editing to produce optimal outcomes. AI-generated content has limitations and tends to be lower in quality than human-created content.

The participants stated that the most important obstacles to the application of AI in PR fields are that, currently, some PR managers and practitioners still have a limited understanding of AI techniques and lack specific competencies for dealing with AI.

Finally, the majority of the interviewees emphasized the importance of establishing national task forces to address the challenges posed by AI and ChatGPT, and the need to develop appropriate policies for education, training, and employment.

## **7. Conclusion**

At the moment, according to the participants, AI is used more in private sector PR departments in Bahrain than in the public sector, which is more cautious about introducing and experimenting with this new technology. As discussed above, some creative skills are still hard to automate, but this does not mean that the PR profession does not make use of AI. AI can assist in handling and achieving routine tasks, which

frees up PR professionals to concentrate on creative and more complex tasks.

The study found that mechanical intelligence is currently the most widely used type of AI in the PR field in Bahrain, followed by analytical intelligence; intuitive intelligence is used a little, and empathetic intelligence is not used at all. Regarding AI job replacement, it is clear that the AI used in PR practices has not yet reached the level of high-level machine intelligence (HLMI) (achieved when machines can perform all tasks more efficiently and cheaply than human workers). Furthermore, PR professionals are critical in developing and maintaining good relationships with all key stakeholders such as influencers, journalists, community, and customers. These relationships will continue to require effective interpersonal abilities, empathy, and a deep understanding of human psychology and mentality, which AI is currently incapable of replicating. In this regard, while AI has the potential to automate routine tasks, it is not yet advanced enough to replace the creativity, critical thinking, strategic communication, and human interaction required for successful PR. Thus, it can be concluded that PR practitioners will not be replaced by AI, at least in the next decade.

On the other hand, it seems that the use of AI in Bahrain in coming years is expected to have a significant impact on the labor market. Organizations should understand the possible implications of AI technologies and take proactive steps to adapt to and capitalize on their potential, which will ensure a smooth transition to a more technologically advanced labor market.

More research is needed into the ethics of applying AI in the PR field, the organizational changes that AI will bring, especially at the PR practices level, and the effect of using AI for crisis management and online reputation.

## 8. Limitation

The study was limited to Bahrain only, which may limit the generalizability of the findings to other countries or regions.

## References

- [1] N. Türksoy, "The future of public relations, advertising and journalism: how artificial intelligence may transform the communication profession and why society should care?" ["Halkla İlişkiler,

Reklamcılık ve Gazeteciliğin Geleceği:

Yapay Zeka Uygulamaları İletişim Mesleğini Nasıl Dönüştürecek ve Toplum Bunu Neden Önemsemeli?"]

Turkish Rev. Commun. Stud. (Türkiye İletişim Araştırmaları Dergisi), vol. 40, pp. 394–410, June 2022. 10.17829/turcom.1050491

- [2] J. Valin, *Humans still needed: An analysis of skills and tools in public relations*. London: Chartered Institute of Public Relations (CIPR), 2018.
- [3] Hancock, J. T., Naaman, M., and Levy, K, "AI-mediated communication: Definition, research agenda, and ethical considerations. *Journal of Computer-Mediated Communication*", vol. 25(1), pp. 89–100, 2020. doi.org/10.1093/jcmc/zmz022.
- [4] P. Andrew, J. Ip, J. Worthington, and C. Brooke, *Fast forward 2030: The future of work and the workplace*. Beijing: CBRE and Genesis, 2014.
- [1] C. Galloway and L. Swiatek, "Public relations and artificial intelligence: it's not (just) about robots," *Pub. Relations Rev.*, vol. 44(5), pp. 734–740, December 2018.
- [5] W. Marx, "Artificial intelligence and PR: what you need to know." *Business2community*. <https://www.business2community.com/public-relations/artificialintelligence-pr-need-know-01969903> (accessed Dec. 10, 2021).
- [6] H. A. Alawaad, "The role of artificial intelligence (AI) in public relations and product marketing in modern organizations," *Turkish J. Comput. Math. Educ.*, vol. 2(14), pp. 3180–3187, 2021.
- [7] G. Panda, A. K. Upadhyay, and K. Khandelwal, "Artificial intelligence: a strategic disruption in public relations," *J. Creative Commun.*, vol. 14(3), pp. 196–213, September 2019.
- [8] Peterson, "The past, present & future of artificial intelligence in PR." *Cision*. <https://www.cision.com/2019/01/artificial-intelligence-PR/> (accessed Nov. 22, 2021).
- [9] Rogers, "How artificial intelligence and big data will affect the future of PR." *Institute for Public Relations*. <https://instituteforpr.org/how-artificial-intelligence-and-big-data-will-affect-the-future-of-pr/> (accessed Nov. 11, 2021).
- [10] H. Lee and C.-H. Cho, "Digital advertising: present and future prospects," *Int. J. Advertising*, vol. 39(3), pp. 332–341, 2020.
- [11] E. A. López Jiménez and T. Ouariachi, "An exploration of the impact of artificial intelligence (AI) and automation for communication professionals," *J. Inf. Commun. Ethics Soc.*, vol.

- 19(2), pp. 249–267, June 2021. doi: 10.1108/JICES-03-2020-0034
- [12] F. E. E. Liew, “Artificial intelligence disruption in public relations: a blessing or a challenge?” *J. Digit. Marketing Commun.*, vol. 1(1), pp. 24–28, December 2021. doi: 10.53623/jdmc.v1i1.45
- [13] N. N. Arief and A. Gustomo, “Analyzing the impact of big data and artificial intelligence on the communications profession: a case study on public relations (PR) practitioners in Indonesia,” *Int. J. Adv. Sci. Eng. Inf. Technol.*, vol. 10(3), pp. 1066–1071, June 2020.
- [14] Y. N. Harari, *Homo deus: A brief history of tomorrow*. New York: Harper Perennial, 2016.
- [15] M. Ardila, “The Rise of Intelligent Machines: How Artificial Intelligence is Transforming the Public Relations Industry”, unpublished.
- [16] M. H. Huang and R. T. Rust, “Artificial intelligence in service,” *J. Service Res.*, vol. 21(1), 109467051775245, February 2018. doi: 10.1177/1094670517752459
- [17] C. S. K. Chow, G. Zhan, H. Wang, and M. He, “Artificial intelligence (AI) adoption: an extended compensatory level of acceptance,” *J. Elect. Commerce Res.*, vol. 24(1), pp. 84–106, February 2023.
- [18] J. Schepers and S. Streukens, “To serve and protect: a typology of service robots and their role in physically safe services,” *J. Service Manage.*, vol. 33(2), pp. 197–209, February 2022. doi: 10.1108/JOSM-11-2021-0409
- [19] F. Kvalsvik and T. Øgaard, “Dyadic interviews versus in-depth individual interviews in exploring food choices of Norwegian older adults: a comparison of two qualitative methods,” *Foods*, vol. 10(6), 1199, May 2021. doi: 10.3390/foods10061199.
- [20] Naglaa Elgammal, “Semiotic Analysis of the Instagram Marketing of Bahraini Telecom Companies in Light of Multiculturalism and Persuasion Techniques”, *Journal of Namibian Studies*, 34, 2023, 2990–3013.
- [21] Naglaa Elgammal, “Sustainable Corporate Social Responsibility Through Social Media in Relation to Electronic Word of Mouth (E-WOM) And Consumer Loyalty: An Applied Study of A Sample Of Banking Sector Customers In The Kingdom Of Bahrain”. *Webology*, 19(2), 2020, 9059- 9080.