

## **Examining the Practice of Public Relations in the Fifth Industrial Era (5IR)**

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### **Abstract**

*The Fifth Industrial Revolution (5IR), defined by hyper-connectivity, artificial intelligence (AI), and human-machine collaboration, profoundly impacts public relations (PR) practices. This study examines the integration of technologies like generative AI, big data analytics, and immersive platforms in strategic communication, highlighting opportunities for enhanced audience targeting, real-time crisis response, and personalized engagement. It also addresses challenges such as ethical issues in AI content creation, data privacy risks, algorithmic biases, and the imperative for PR professionals to upskill. The study is underpinned by the Excellence Theory of PR. Through a qualitative desk review of literature from 2020 to 2025, the study synthesizes key themes, revealing that while 5IR enables ethical leadership and sustainable communication, it demands robust guidelines to mitigate deepfakes and misinformation. Recommendations include mandatory AI disclosure, human oversight in automation, and updated professional codes to ensure PR's relevance in this era.*

**Keywords:** Public Relations, Fifth industrial era, Prospects, Challenges, Industry 5.0, PR

## 1.0 Introduction

Public relations practice has come of age with the introduction of digitalization which has become a notable force, driving both innovation and fragmentation in the field. Public Relations has a very long history that traverses both celestial and human world (Uche, 2024; Uche & Inah, 2024). The integration of artificial intelligence (AI), big data, and the Internet of Things (IoT) has transformed traditional PR functions, enabling more efficient communication, targeted messaging, and data-driven strategies. However, this rapid technological advancement also brings risks, such as ethical dilemmas, data privacy concerns, and the need for new professional skills (Kretschmer & Winkler, 2023; Bani Yassen, 2025; Pribadi & Nasution, 2021; Özgen & Saydam, 2022).

The transition from traditional PR to the current era has required practitioners to continuously update their skills, particularly in digital literacy and strategic intelligence. The rise of AI and automation is expected to replace some routine PR tasks, but human-centric skills—such as creativity, ethical judgment, and relationship management—remain essential (Soriano & Valdés, 2021; Pribadi & Nasution, 2021; Almansa-Martínez & Fernández-Souto, 2020; Özgen & Saydam, 2022).

Industry 5.0 represents a paradigm shift from the technology-driven focus of Industry 4.0 to a more human-centric approach. It emphasizes personalization, sustainability, and collaboration between humans and advanced technologies such as Artificial Intelligence (AI), Internet of Things (IoT), and robotics (Ghazali et al., 2025). For the public relations (PR) profession, Industry 5.0 presents significant opportunities for innovation and stakeholder engagement, while also introducing challenges related to ethics, transparency, and professional practice.

The increased use of digital tools and AI in PR introduces new ethical challenges, including the responsible use of personal data, transparency in communication, and the management of misinformation. Practitioners report facing more frequent moral dilemmas, especially regarding the use of bots, influencer marketing, and sponsored content (Bani Yassen, 2025; Hagelstein et al., 2021; Davies & Hobbs, 2020).

PR professionals are encouraged to embrace a hybrid approach, combining traditional relationship management with advanced strategic intelligence and digital tools. The convergence of media platforms and the proliferation of social media influencers offer new opportunities for engagement

but also require careful management to maintain authenticity and trust (Soriano & Valdés, 2021; Davies & Hobbs, 2020; Rahma, 2024).

Technologies such as generative AI, big data analytics, and immersive platforms like the metaverse are redefining how organizations engage with stakeholders, manage crises, and build trust in an increasingly digital world (Tong & Chan, 2022; Sibagariang & Andrini, 2022). The prospects of PR in this era are much. However, these advancements come with challenges too. This study therefore aims to examine the challenges and opportunities facing PR practice in this fifth industrial revolution era and make recommendations for mitigating some of these challenges.

### **1.1 Statement of the Problem**

Despite the potential of Industry 5.0 technologies, PR practitioners face significant hurdles, including ethical risks from AI-generated content, such as misinformation and bias, and the lack of unified regulatory frameworks (Tong & Chan, 2022; Sibagariang & Andrini, 2022; Kretschmer & Winkler, 2023; Yassen, 2025). Additionally, cultural and skill gaps hinder effective adoption, particularly in developing economies including Nigeria where localized AI tools are scarce. These issues threaten trust and authenticity in stakeholder relationships, necessitating research into adaptive strategies.

### **1.2 Objectives of the Study**

The objectives of this paper are to examine current and emerging opportunities for PR under Industry 5.0.; identify the challenges facing PR practice in this fifth industrial revolution era and recommend strategies to overcome the challenges to ensure the continued relevance and professionalism of the PR practice.

### **1.3 Methodology**

This study adopts a qualitative research design, using a desk review of peer-reviewed journal articles, industry reports, and policy documents published between 2020 and 2025. Sources were identified through databases such as Scopus, ScienceDirect, and Google Scholar, as well as industry associations. The qualitative review centres on the prospects and the inherent challenges confronting the practice of public relations in the fifth industrial revolution (5IR) era.

## **2.0 Theoretical Framework**

This study is grounded in the Excellence Theory of PR, which emphasizes two-way symmetrical communication for building trust. The Excellence Theory is a foundational framework in public relations (PR), offering guidance on how organizations can achieve effective, ethical, and strategic communication with their stakeholders. The Excellence Theory was primarily developed by James E. Grunig, Larissa Grunig, and David M. Dozier, with contributions from other scholars through the International Association of Business Communicators (IABC) Excellence Project. Their research, spanning from the 1960s through the early 2000s, established the theory as a general model for PR as a strategic management function (Grunig & Grunig, 2008; Hung-Baesecke et al., 2021; Grunig, 2008; Grunig, 2006; Grunig & Grunig, 2000). Its relevance is increasingly significant as PR adapts to the technological and societal shifts of the Fifth Industrial Era (5IR). The Excellence Theory of Public Relations, therefore, provides timeless principles—two-way symmetrical communication, strategic management, ethics, inclusivity, and relationship building—that remain critical in the Fifth Industrial Era. As organizations embrace human-technology collaboration, the theory offers a roadmap for PR practitioners to balance technological efficiency with human empathy, thereby ensuring sustainable, ethical, and mutually beneficial communication practices in a rapidly evolving world. Therefore, this theory is deemed appropriate for this study since technology must augment, and not replace dialogue, empathy, and transparency in public relations.

## **3. Literature Review**

### **3.1 Public Relations and Industry 5.0**

Industry 5.0 represents a paradigm shift from the automation-driven Industry 4.0 to a more human-centric, sustainable, and resilient model of development. It is not solely about technological advancements but about aligning innovation with societal and environmental needs. Unlike Industry 4.0, which emphasized efficiency, robotics, and cyber-physical systems, Industry 5.0 integrates human creativity and critical thinking with advanced technologies like artificial intelligence (AI), the Internet of Things (IoT), and big data analytics (Soriano & Valdés, 2021; Kretschmer & Winkler, 2023; Yassen, 2025; Özgen & Saydam, 2022).

Scholars (Prowly, 2025; Rhama, 2024; Yassen, 2025; Ghazali et al., 2025) argue that this phase is best understood as a “re-humanisation” of industrial practices; suggesting that organisations in

Industry 5.0 will compete on their ability to build trust through transparent, ethical, and sustainable communication rather than on speed or efficiency alone. This makes the role of public relations pivotal, as PR is tasked with ensuring that narratives about human-centric innovation are both credible and ethically sound (Yassen, 2025; Özgen & Saydam, 2022). Industry 5.0 is not just about efficiency; it prioritizes human well-being, creativity, and sustainability (Ghazali et al., 2025). For PR professionals, this translates into the ability to personalize stakeholder engagement and build stronger trust through meaningful communication strategies.

### **3.2 Technology Adoption in PR**

AI adoption in PR has surged significantly in recent years. According to Muck Rack's State of AI in PR report, the usage of generative AI among PR professionals jumped from 28% in March 2023 to 64% by December 2023, with further growth reported in 2025 where three out of four PR pros (75%) use generative AI at work, nearly triple the amount compared to 2023 (Muck Rack, 2024; PR News Online, 2025). These tools assist in content creation, media monitoring, and stakeholder analysis, with 64% of respondents using AI to write social copy, 58% for research and writing press releases, and 54% for headlines (Muck Rack, 2024). Additionally, 82% of professionals use AI for brainstorming, and on average, PR pros now employ AI for five tasks, up from three in 2024 (Martech Cube, 2025). However, this rapid adoption also raises concerns about over-reliance on automation and reduced human oversight.

Historically, public relations has evolved in response to technological disruptions. From the emergence of mass media in the 20th century to the rise of digital and social media in the 21st, PR practitioners have continually adapted strategies and tools (Grunig & Grunig, 2020). The advent of Industry 5.0 introduces new technologies such as generative AI, deepfake detection systems, and immersive platforms (augmented and virtual reality), all of which reshape how PR professionals manage stakeholder relationships (CIPR, 2023).

Current studies highlight both optimism and apprehension within the PR industry. On one hand, AI-driven analytics enhance message targeting and evaluation (Prowly, 2024). For instance, a Cision survey indicates that 32% of PR and communications professionals use generative AI frequently, 33% infrequently, and 27% are considering experimentation (Cision, 2024). On the other hand, practitioners worry about losing authenticity and ethical control when over-relying on algorithms (PRSA, 2023). Scholars like Piccarozzi et al. (2024) note that while AI can improve

campaign efficiency, stakeholder trust is undermined if messages appear machine-generated without human oversight.

### **3.3 Drivers and Barriers to Industry 5.0**

A systematic review by Ghazali et al. (2025) identified key drivers of Industry 5.0 adoption: sustainability, human-centric design, and stakeholder trust. Conversely, barriers include technological infrastructure gaps, regulatory uncertainty, and workforce skills deficits. These drivers and barriers directly shape PR practice, influencing how organizations adopt communication strategies that align with Industry 5.0 principles. For example, surveys show that while 65% of PR professionals view AI as impactful for research and list building, and 62% for ideation, skill gaps and ethical concerns hinder full adoption (Agility PR, 2025).

### **3.4 Ethical Considerations**

The ethical dimension of PR practice in Industry 5.0 cannot be overstated. The proliferation of synthetic media (deepfakes) poses a serious reputational risk, as stakeholders may doubt the authenticity of both content and corporate messages (Vaccari & Chadwick, 2020). UNESCO (2021) stresses the importance of embedding human rights and transparency principles in AI-driven communication.

Professional bodies such as Public Relations Institute of Ireland (PRII), Chartered Institute of Public Relations (CIPR) United Kingdom, and the Public Relations Society of America, have responded to the challenge of ethical practice. For instance, PRSA's "Promise and Pitfalls" guidance (2023) recommends mandatory disclosure when AI tools are used in message generation, emphasizing honesty, fairness, transparency, and accountability (PRSA, 2023a; PRSA, 2023b), while CIPR (2023) insists that "humans are needed more than ever." These frameworks align with Edelman's Trust Barometer (2025), which reports that trust in organisations is increasingly tied to their responsible use of technology.

Ethical concerns are prevalent, with surveys revealing significant dilemmas. For instance, 37.8% of PR professionals cite data privacy and cybersecurity as major issues in AI adoption (Prowly, 2025). Additionally, a Page Center survey indicates that while most PR professionals are confident in using AI, over half express concerns about ethical dilemmas such as factual errors, misinformation, and bias (Page Center, 2025). Furthermore, 55% of PR pros report that their companies have no AI guidelines, exacerbating risks (Muck Rack, 2025). The integration of AI

raises issues like bias, privacy breaches, and the need for human oversight to mitigate reputational threats (PRSA, n.d.; Ragan Communications, 2023).

Ethical practice remains central to PR. The Public Relations Society of America (PRSA) released its *Ethical Use of AI for Public Relations Practitioners* guidance, stressing honesty, fairness, transparency, and accountability (PRSA, 2023). Similarly, PRWeek (2023) reported on PRSA's call for disclosure of AI use in communications. These guidelines underscore the importance of ethical guardrails in maintaining stakeholder trust.

#### **4.0 Prospects and Challenges of PR in the 5IR Era**

The emergence of the Fifth Industrial Era (5IR) is reshaping public relations (PR) through advanced digitalization, artificial intelligence (AI), and the integration of human-centric values. The literature highlights both significant opportunities and complex challenges for PR professionals as they adapt to this new landscape.

##### **4.1 Digitalization and Technological Transformation**

Digitalization is a central force in the evolution of PR, driving both innovation and fragmentation in the field. The integration of AI, big data, and the Internet of Things (IoT) has transformed traditional PR functions, enabling more efficient communication, targeted messaging, and data-driven strategies. However, this rapid technological advancement also brings risks, such as ethical dilemmas, data privacy concerns, and the need for new professional skills (Kretschmer & Winkler, 2023; Yassen, 2025; Pribadi & Nasution, 2021; Özgen & Saydam, 2022). The literature emphasizes the importance of developing an integrative perspective to balance the prospects and risks of digitalization in PR (Kretschmer & Winkler, 2023).

##### **4.2 Evolving Roles and Skills**

The transition from traditional PR (PR 1.0) to the current era (PR 4.0 and beyond) has required practitioners to continuously update their skills, particularly in digital literacy and strategic intelligence. The rise of AI and automation is expected to replace some routine PR tasks, but human-centric skills—such as creativity, ethical judgment, and relationship management—remain essential for the foreseeable future (Soriano & Valdés, 2021; Pribadi & Nasution, 2021; Almansa-Martínez & Fernández-Souto, 2020). Training and education must adapt to equip PR professionals

with both technological know-how and ethical awareness (Almansa-Martínez & Fernández-Souto, 2020; Özgen & Saydam, 2022).

### **4.3 Ethical and Societal Challenges**

The increased use of digital tools and AI in PR introduces new ethical challenges, including the responsible use of personal data, transparency in communication, and the management of misinformation. Practitioners report facing more frequent moral dilemmas, especially regarding the use of bots, influencer marketing, and sponsored content. The literature calls for updated ethical guidelines and structured training to address these challenges (Yassen, 2025; Hagelstein et al., 2021; Davies & Hobbs, 2020).

### **4.4 Strategic Adaptation and Opportunities**

PR professionals are encouraged to embrace a hybrid approach, combining traditional relationship management with advanced strategic intelligence and digital tools. The convergence of media platforms and the proliferation of social media influencers offer new opportunities for engagement but also require careful management to maintain authenticity and trust (Soriano & Valdés, 2021; Davies & Hobbs, 2020; Rahma, 2024). The ability to adapt communication strategies to technological advancements and changing user behaviour is crucial for organizational success (Rahma, 2024).

## **5.0 Data Presentation and Analysis**

This section presents and analyses the key data derived from the desk review, synthesizing findings from the reviewed literature into thematic categories. The analysis draws on qualitative insights from peer-reviewed articles, reports, and documents (2020-2025), including expanded sources on AI ethics and 5IR impacts. Data are organized into tables for clarity, highlighting prospects, challenges, and empirical trends in PR practice.



**Table 1: Key Prospects of PR in 5IR**

Prospect	Description	Supporting Evidence
Enhanced Audience Targeting	AI enables precise segmentation and personalization using big data.	75% of PR professionals use generative AI (PR News Online, 2025); 64% use AI for social copy (Muck Rack, 2024).
Real-Time Crisis Management	Automation and analytics facilitate proactive responses.	AI for sentiment analysis and early warnings (Agility PR, 2025); 58% use for research (Muck Rack, 2024).
Personalized Engagement	Human-AI symbiosis boosts stakeholder relationships.	Hybrid approaches for authenticity (Soriano & Valdés, 2021); 82% use AI for brainstorming (Martech Cube, 2025).
Efficiency in Content Creation	Generative AI reduces routine tasks.	64% adoption rate in 2023, rising to 75% in 2025 (Muck Rack, 2024; PR News Online, 2025).

**Table 2: Key Challenges of PR in 5IR**

Challenge	Description	Supporting Evidence
Ethical Dilemmas in AI	Bias, misinformation, and lack of transparency.	Factual errors and deepfakes (PRSA, n.d.); Ethical concerns in surveys (Page Center, 2025).
Data Privacy Risks	Unauthorized data access and compliance issues.	37.8% cite privacy as major issue (Prowly, 2025); GDPR adherence needed (Agility PR, 2025).
Skill Gaps and Job Displacement	Need for upskilling amid automation.	Workforce deficits (Ghazali et al., 2025); 55% lack AI guidelines (Muck Rack, 2025).
Algorithmic Bias	Perpetuation of stereotypes in communications.	Biased training data (PRSA, 2023a); Audit recommendations (Ragan Communications, 2023).

Analysis reveals a dual trend: technological prospects dominate (e.g., 75% view AI as opportunity; PR News Online, 2025), but challenges like ethics persist, with 55% of organizations lacking AI guidelines (Muck Rack, 2025). In developing contexts like Nigeria, infrastructure gaps exacerbate barriers (Yassen, 2025). Overall, data indicate PR's shift toward human-centric 5IR, but with ethical safeguards essential.

## 6.0 Discussion of Findings

The findings of the study reveal that the Fifth Industrial Era (5IR) is profoundly reshaping the practice of public relations (PR). Several key themes emerged:

**1. Technological Integration and Transformation**

PR practice is now heavily driven by digitalization, artificial intelligence (AI), big data, immersive platforms, and the Internet of Things (IoT). These tools enhance stakeholder engagement through real-time analytics, precision targeting, and automation. However, this transformation is double-edged: while it increases efficiency and reach, it also raises concerns about authenticity, algorithmic bias, and the dilution of human judgment in communication processes.

**2. Evolving Professional Roles and Skills**

Findings indicate that although AI and automation are replacing many repetitive PR tasks (e.g., monitoring, reporting, and drafting), human-centric capabilities such as creativity, ethical decision-making, and relationship management remain indispensable. Skill gaps were identified, particularly in developing economies where infrastructure and localized AI tools are limited, thereby affecting equitable adoption of 5IR innovations.

**3. Ethical and Societal Challenges**

The study highlights mounting ethical dilemmas in PR practice under 5IR. These include transparency in AI-generated content, data privacy, misinformation, and the growing risk of synthetic media such as deepfakes. Stakeholders increasingly demand openness about when AI is used in communication, aligning with professional codes of conduct such as PRSA's (2023) call for disclosure. Ethical leadership thus becomes essential for sustaining trust.

**4. Strategic Adaptation and Opportunities**

PR professionals can harness 5IR technologies for personalized engagement, predictive crisis management, and stakeholder-centred communication. The convergence of traditional and digital platforms, combined with the rise of influencers and immersive spaces (such as the metaverse), opens opportunities for hybrid approaches to

communication. Success depends on maintaining authenticity, inclusivity, and sustainability in message delivery.

## **7.0 Conclusion**

The Fifth Industrial Era is redefining public relations as both a strategic and ethical practice. While advanced technologies such as AI and big data analytics offer unprecedented opportunities for targeted, efficient, and impactful communication, they also introduce profound ethical and professional challenges. The findings underscore that PR's relevance in 5IR lies not in abandoning traditional values but in reinforcing them through new tools. Thus, the future of PR depends on blending human creativity, ethical responsibility, and digital intelligence to sustain trust and credibility in stakeholder relationships. In particular, PR in 5IR must embody *human-technology symbiosis*—a balanced integration of innovation with empathy, sustainability, and accountability.

## **8.0 Recommendations**

Based on the findings of this paper, the following recommends the following:

1. There should be an establishment of clear ethical guidelines for AI use in PR while will mandate disclosure when AI-generated content is deployed.
2. There should be an implementation of a strong oversight mechanisms to mitigate misinformation, deepfakes, and algorithmic bias.
3. PR practitioners should engage in continuous professional development to bridge skill gaps, especially in developing countries including Nigeria.
4. All PR professional bodies and associations such as NIPR, PRSA, CIPR, etc. should update codes of conduct to reflect 5IR realities.
5. Governments and professional bodies should collaborate to establish legal frameworks that protect data privacy and ensure ethical technology adoption.
6. There should be an application of the Excellence Theory principles to ensure two-way symmetrical communication in both digital and physical spaces.
7. PR strategies should align with sustainability, inclusivity, and human well-being—core principles of Industry 5.0.

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