

The Meta Analysis in Public Relations Theory in the Era 1.0, 2.0, 3.0, 4.0, and Artificial Intelligence

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ABSTRACT

This research delves into the evolution of public relations theory from 1964 to 2024 using a meta-analysis approach and bibliometric techniques. By examining 12,186 articles from the Scopus database, we chart the development of PR theory across five distinct phases: 1.0 (1964-1980), 2.0 (1981-1990), 3.0 (1991-2000), 4.0 (2001-2010), and 5.0 (2011-2024). Our research demonstrates a transition from Traditional one-way communication methods to interactive, data-driven strategies that integrate artificial intelligence. Notable trends include the increasing significance of digital platforms, social media, and AI-driven analytics in public relations. This study offers valuable perspectives on the evolving nature of public relations theory and practice, emphasizing the industry's ability to embrace technological progress and meet changing societal demands. As a result of this analysis, we provide an overview of the main themes, emerging trends, and shifting patterns in PR theory over time, providing a basis for future research in the era of AI-driven Public Relations.

Keywords: Public Relations Theory, Artificial Intelligence, Meta-Analysis, Bibliometrics, Digital Communication

ABSTRAK

Penelitian ini menyelidiki evolusi teori hubungan masyarakat dari tahun 1964 hingga 2024 menggunakan pendekatan meta-analisis dan teknik bibliometrik. Dengan memeriksa 12.186 artikel dari basis data Scopus, kami memetakan perkembangan teori PR melalui lima fase berbeda: 1.0 (1964-1980), 2.0 (1981-1990), 3.0 (1991-2000), 4.0 (2001-2010), dan 5.0 (2011-2024). Penelitian kami menunjukkan transisi dari metode komunikasi satu arah tradisional ke strategi interaktif berbasis data yang mengintegrasikan kecerdasan buatan. Tren penting termasuk semakin pentingnya platform digital, media sosial, dan analitik berbasis AI dalam hubungan masyarakat. Studi ini menawarkan perspektif berharga tentang sifat teori dan praktik hubungan masyarakat yang terus berkembang, dengan menekankan kemampuan industri untuk merangkul kemajuan teknologi dan memenuhi tuntutan masyarakat yang terus berubah. Sebagai hasil dari analisis ini, kami memberikan gambaran umum tentang tema-tema utama, tren yang muncul, dan pola-pola yang berubah dalam teori PR dari waktu ke waktu, yang menyediakan dasar untuk penelitian masa depan di era Hubungan Masyarakat yang digerakkan oleh AI.

Kata Kunci: Teori Hubungan Masyarakat, Kecerdasan Buatan, Meta-Analisis, Bibliometrik, Komunikasi Digital

INTRODUCTION

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Public Relations is experiencing revolution from traditional Public Relations to Artificial Intelligence-based Public Relations (Arief, 2019; Liew, 2021) and continues to develop from an academic and practical perspective (L'Etang, 2013). As highlighted by Etang, the revolution in Public Relations involves both academic and practical dimensions. While this transformation impacts both areas, this paper primarily concentrates on the theoretical evolution of Public Relations, exploring shifts in PR theory across the various eras: 1.0, 2.0, 3.0, 4.0, and the AI era. This revolution occurred and was influenced by environmental changes (Fadillah & Wibowo, 2022; Santa Soriano & Valdés, 2021), and the rise of Artificial Intelligence and social media (Allagui & Breslow, 2016; Siregar et al., 2024). Social media (van Osch & Coursaris, 2014) equipped with digital platforms is a threat to Public Relations experts in this digital era (Kertati et al., 2023; McCorkindale & DiStaso, 2014). In today's digital era, individuals, whether professionals or not, have the potential to create and disseminate content that can quickly become viral. Digital platforms are uniquely positioned to comprehend human activity, as they are highly interactive, participatory, mobile, data-driven, and adaptable to human needs. (Carah, 2021; Kertati et al., 2023). Digital platforms have greater power when compared to mass media because they can manipulate and utilize the participatory culture of the digital world. On the other hand, the Public Relations revolution is happening because organizations increasingly depend on technology, Artificial Intelligence, and big data. (Panda et al., 2019; Zimand-Sheiner & Lahav, 2022). Organizations rely heavily on a solid digital platform to deliver messages to stakeholders. (Carah, 2021; Valentini & Kruckeberg, 2012). At the same time, the lines between Public Relations, advertising and content for marketing are becoming increasingly blurred (Lahav & Zimand-Sheiner, 2016).

Some experts argue that the use of Artificial Intelligence (Mohamed & Bayraktar, 2022; Panda et al., 2019), social media (Kent & Li, 2020; Zimand-Sheiner & Lahav, 2022), and other information technologies are identified as disruptions to the Public Relations profession (Alikilic & Atabek, 2012). Artificial Intelligence's intelligent algorithms help us utilize data that we can use to automate and replace the Public Relations profession (Nobre, 2020). As a result, many Public Relations tasks will be replaced by Artificial Intelligence. The workforce in the world of Public Relations will be significantly reduced (Bourne, 2019) and replaced by Artificial Intelligence. For example, pop-up campaigns and agenda management (Nobre, 2020) will be carried out by algorithms, data-based PR campaigns will be conducted, and mundane tasks will be automated (Panda et al., 2019; Peterson, 2019). Through its intelligent algorithm, Artificial Intelligence is able to make sentiment analysis and crisis management (Abdulai et al., 2023; Babatunde, 2022; Çeber & Bilbil, 2024; Panda et al., 2019; Peterson, 2019), monitor social media (Mardhika, 2023) and predict media trends (Çeber & Bilbil, 2024; Galloway & Swiatek, 2018; Panda et al., 2019) and conduct customer analysis (Sennaar, 2017). This is because artificial intelligence is able to process data and statistics much faster than Public Relations practitioners from anywhere in the world (Rogers et al., 2019).

This new landscape urges PR practitioners to adapt (Galloway & Swiatek, 2018; Herbst, 2014). It is increasingly important for them to understand and integrate AI into their work (Galloway & Swiatek, 2018), as AI can enhance efficiency and effectiveness in audience outreach. Practitioners need not fear AI but should instead harness it as a tool, leveraging big data to inform strategies (Rogers et al., 2019). Practitioners must also develop skills in interpreting data and translating it into actionable strategies. AI-driven insights can support critical decision-making processes in PR (Izzah, 2024).

Interestingly, only a small part of Public Relations work can be replaced by Artificial Intelligence (Zhao, 2024) and can be automated (Valin, 2018). More strategic Public Relations work such as in-depth analysis, building social relationships, building personal relationships (Scott M. Cutlip, Allen H. Center, 2010) or other jobs that use feelings (Rogers et al., 2019) and that require high creativity (Ristic, 2017) cannot be replaced by Artificial Intelligence and must still be done by humans (Nobre, 2020; Pribadi & Nasution, 2021). Even though Artificial Intelligence is able to make the work of Public Relations practitioners more effective and efficient in the context of numbers, Artificial Intelligence cannot replace the 'feelings' and creativity that can be done by humans (Nobre, 2020; Rogers et al., 2019). Artificial Intelligence is only a tool in Public Relations work (Panda et al., 2019).

However, the focus of the discussion of artificial intelligence in the world of public relations is still only on robotization (Galloway & Swiatek, 2018; Johnson & Verdicchio, 2017). In fact, if we talk about robotization, robotization in the world of Public Relations is not as important as

robotization in other fields and professions such as economics, engineering, and other fields (Valin, 2018). On the other hand, Artificial Intelligence in the world of Public Relations talks about many things, not just robotization. Research results from the Chartered Institute of Public Relations (CIPR) classify Artificial Intelligence technology devices in Public Relations work into four groups, namely (1) Simplification of Task, (2) Social Listening, (3) Automation of Task, (4) AI for Structured Data; and (5) AI for Unstructured Data. (CIPR, 2019). From 1.0, 2.0, 3.0, 4.0, and the age of Artificial Intelligence, this grouping depicts significant changes in Public Relations. This classification shows that Artificial Intelligence is not limited to robotization. This is clarified based on the understanding of Artificial Intelligence in the context of Public Relations, which is a technology that demonstrates humanoid cognitive abilities and performs humanoid functions in carrying out Public Relations activities independently or together with other Public Relations practitioners (Galloway & Swiatek, 2018).

Based on this background, it is urgent to develop a thorough understanding of artificial intelligence's role in public relations and the ways PR has adapted to the current AI-driven era. The primary objectives are twofold: first, to determine the role and position of public relations in the AI era; and second, to address concerns about the PR profession potentially being replaced by AI and its advanced algorithms. To achieve this, the study maps the theoretical development of public relations, from the early Era 1.0 to the present AI era, offering a comprehensive perspective on PR's position over time.

Therefore, mapping the theory of Public Relations, starting from the era 1.0, 2.0, 3.0, and 4.0 and the era of Artificial Intelligence, is one way to build a proper understanding of the position of Public Relations. In this paper, the Public Relations theory of Era 1.0 will be analyzed from journal articles published in 1964-1980. Public Relations theory of era 2.0 will be analyzed from journal articles published in 1981-1990. Public Relations theory of era 3.0 will be analyzed from journal articles published in 1991-2000. Public Relations theory of era 4.0 will be analyzed from journal articles published in 2001-2010. Public Relations theory of era 5.0 will be analyzed from journal articles published in 2011-2024.

The results of this study are expected to reduce concerns regarding the profession of public relations that artificial intelligence will replace. The Public Relations theory map from the 1.0 era, 2.0, 3.0, 4.0, and the Artificial Intelligence era is expected to provide an overview of the position of Public Relations in each era and the role of the media in each era. Based on this logic of thinking, the formulation of the problem in this paper is "How the Public Relations theory maps from the 1.0 era, 2.0, 3.0, 4.0, and the Artificial Intelligence era?"

This study uses a meta-analysis approach, drawing from 12,186 articles in the Scopus database, and introduces two key innovations. First, it offers a public relations theory map across different eras, establishing a strong foundation for future research, particularly in the context of AI. Second, it employs a meta-analytic approach, a methodology that has seen limited application in public relations research, bringing new insights and a data-driven understanding of public relations' evolution.

METHODS

This research identifies the pattern of public relations theory across five distinct time periods using a meta-analysis approach combined with bibliometric techniques. Conducted with the R Studio tool, this study leverages high-accuracy coding to access the biblioshiny library, enabling a precise examination of the evolution of public relations theory through to the Artificial Intelligence era. Using bibliometric techniques (Tomaszewski, 2023; Yazdani et al., 2022), this research offers a comprehensive view of public relations theory's progression based on significant literature in the field.

The bibliometric approach used in this study involved several stages (Suryantoro et al., 2023; Yazdani et al., 2022). The first step was to define a theme by examining the scientific database chosen for this research. Scopus served as the primary database, providing a substantial dataset of twelve thousand articles from 1964 to 2024. Scopus was selected for its extensive coverage and data quality (Medias et al., 2024; Velasco López & Cobo Martín, 2023; Vengadesh et al., 2023; Yazdani et al., 2022). This comprehensive dataset allowed the study to trace the theoretical development of public relations across decades, leading up to the influence of AI on the field.

Bibliometric

The bibliometric method is a research technique that employs quantitative analysis of scholarly literature to identify and evaluate patterns, connections, and trends within the field. Typically applied to large datasets, bibliometrics allows researchers to gain detailed insights from extensive collections of academic work, uncovering patterns that are valuable for guiding and informing research projects over specific time periods. This sophisticated approach makes it possible to systematically analyze massive amounts of data, which is crucial for tracking developments and identifying influential contributions within a given area of study (Khan & Hussain, 2022).

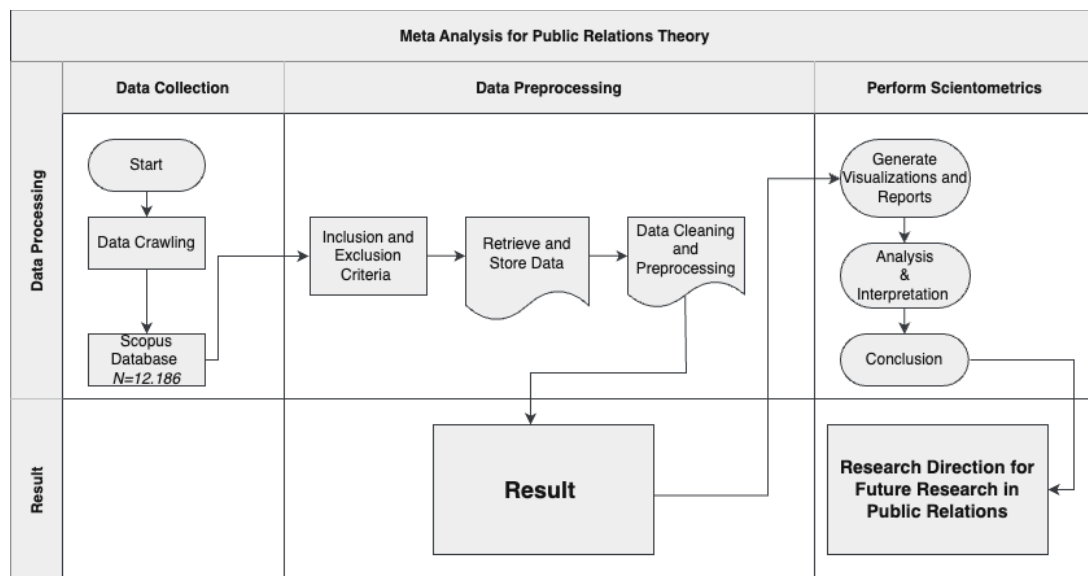


Figure 1. The Process of Meta Analysis

According to Figure 1, the description of all steps of the meta-analysis is as follows.

Data Collections:

1. Data crawling or data collecting

The period from 1964 to 2024 was chosen to trace the development of Public Relations theory, allowing for a thorough examination of both traditional and contemporary perspectives. This timeframe enables us to capture the evolution of public relations across different eras, providing a comprehensive dataset that aligns with our search criteria and goals. By spanning six decades, the selected period covers foundational theories as well as modern advancements, offering a complete picture of how public relations has adapted over time.

2. Dataset

Based on the information presented in Table 1, the parameter 'N=12.186' denotes the conclusion of the data acquisition phase. The subset of publications associated with this parameter forms the underpinning for the bibliometric analysis expounded upon subsequently.

Table 1. Main information of dataset

DESCRIPTION	RESULTS
MAIN INFORMATION	
Timespan	1964:2024
Sources (Journals, Books, etc)	1864
Documents	12186
Annual Growth Rate %	7,22
Document Average Age	14,7
Average citations per doc	20,19
References	0

DOCUMENT CONTENTS	
Keywords Plus (ID)	15591
Author's Keywords (DE)	15563
AUTHORS	
Authors	30274
Authors of single-authored docs	3407
AUTHORS COLLABORATION	
Single-authored docs	3972
Co-Authors per Doc	2,9
International co-authorships %	9,536

3. Data Pre-processing

- a) Inclusion and Exclusion Criteria
Our inclusion criteria include specifying keywords, particularly AI, in media relations as shown as follows: TITLE-ABS-KEY (public AND relations) AND (LIMIT-TO (SUBJAREA ,(LIMIT-TO (LANGUAGE ,"English")) AND (LIMIT-TO (EXACTKEYWORD ,"SOCI") OR LIMIT TO (SUBJAREA ,"Public Relations"))). Furthermore, we focused on social science articles and limited to English language.
- b) Retrieve and Store Bibliographic Data
We conducted bibliometric analysis, and one of the main advantages of bibliometrics is that it allows researchers to concentrate on specific research areas by analyzing word frequency, geographical spread, citations, and co-citations, leading to highly valuable insights (Patra et al., 2023).
- c) Data Cleaning and Pre-Processing
- d) In the data cleaning and pre-processing phase, we accurately reviewed the data to eliminate any duplicate entries and ensure consistency in the author and journal names. This phase also involved correcting inaccuracies and filling in missing information across datasets. By standardizing these elements, we improved the data's reliability and accuracy, laying a strong foundation for the subsequent bibliometric analysis.

4. Perform Bibliometric

- a) Visualization and Report
In this study, we have created a range of visual representations, such as network maps, bar charts, co-authorship graphs, trend graphs, and a visual depiction of the evolution of public relations theory. These visualizations serve as powerful tools for conveying the complex relationships and patterns revealed within the data. By presenting the information in a visually accessible way, we enable clearer insights into the progression and interconnections in public relations theory, making it easier for readers to understand the key developments and trends identified through our analysis.
- b) Analysis and Interpretation
Our focus was on uncovering underlying patterns, trends, and significant insights through visualizations and applied metrics, with the aim of exploring future research opportunities in public relations within the AI era. To provide a comprehensive analysis, we carefully traced the trajectory of media relations in the AI era, as depicted in the figures. These visualizations and metrics not only highlight the evolution of public relations but also underscore the potential impact and areas of growth for the field in an AI-driven future.
- c) Conclusion
The conclusion summarizes the research in the field of public relations for the designated period as part of the research phase.
- d) Future Research Direction
This section aims to make a proactive contribution to scholarly discourse by identifying and outlining potential future research directions.

methodologies are also prominent, with keywords like "qualitative research" and "questionnaire" signaling the field's emphasis on varied research techniques to understand trends and behaviors.

The geographical focus on "United States" implies a strong concentration on U.S.-based research, suggesting that a substantial amount of public relations research has originated from or concentrated on this region. This emphasis could influence the field's theoretical framework and practical applications, potentially shaping a perspective that might not always fully account for global variations in public relations practices.

Education appears as another critical aspect of public relations research, with keywords such as "education," "students," and "teaching" underscoring the importance placed on training and preparing individuals for public relations roles. This focus reflects a commitment to advancing the field through structured education and the continuous development of public relations professionals. The prominence of organizational themes, seen in terms like "organization and management" and "leadership," further emphasizes public relations' role within organizational settings, where strategic communication and leadership play pivotal roles in shaping organizational image and stakeholder relationships.

The presence of terms like "interpersonal communication" and "communication" reinforces the fundamental role that public relations plays in facilitating communication across different spheres. This co-occurrence network, therefore, offers valuable insights into the evolution of public relations theory, demonstrating the multifaceted nature of the field. Over the past sixty years, the field has grown to encompass organizational, educational, and healthcare contexts, while maintaining a strong emphasis on the human and communication elements that are central to effective public relations practices. These findings ultimately bridge theory and practice in public relations, highlighting that PR work, across its various applications, relies fundamentally on the human dimension and effective communication.

Public Relations Strategy: Media Selection

The media and communication channels used for public relations (PR) campaigns have significantly changed over the years due to technological advancements, societal shifts, and communication patterns. Different media and channels have emerged and gained prominence from 1964 to 2024, influencing PR practice. Below is an in-depth examination of the media and channels utilized during each phase of PR development within the specified time frames.

Phase 1.0 (1964–1980): Traditional Media (Print, Radio, and Television)

In the past, conventional media was the leading platform for PR campaigns. PR activities mostly involved one-way communication from organizations to their audience, often through press releases, print ads, radio, and TV.

Phase 2.0 (1981-1990): Early Digital Media (Emerging Digital Tools)

Phase 2.0 (1981-1990) marked the beginning of digital influence on public relations, though conventional media still held sway. This period saw the emergence of specialized publications and industry-focused media, creating more targeted channels for PR messages. Additionally, early digital tools such as email and databases began to be incorporated into PR strategies, particularly towards the late 1980s. Email communication with journalists and stakeholders facilitated faster dissemination of press materials and announcements, while fax machines became a common means of sending press releases and media kits directly to newsrooms.

Phase 3.0 (1991-2000): The Rise of Internet

An Internet revolution began in public relations during the 1990s. Traditional media such as print, radio, and television retained their significance during this period, while online platforms began to rise.

Phase 4.0 (2001–2010) Media Channels: Social Media and the Digital Revolution

The 2000s provided the complete emergence of the digital revolution, marked by the rise of social media platforms. Social media drastically reshaped public relations by enabling interactive communication between organizations and their audiences. Platforms like Facebook, Twitter, and blogs encouraged dialogue and engagement, allowing PR campaigns to be more dynamic and engaging. The dominance of online media grew, and PR practitioners increasingly focused on digital

and social media channels. The ability to connect directly with the public transformed PR strategies, and organizations began to prioritize managing their online reputations.

Phase 5.0 (2011–2024) Artificial Intelligence (AI) and Big Data

During this phase, the PR landscape is heavily influenced by artificial intelligence (AI), big data, and advanced digital platforms. PR practitioners now go beyond managing messages to analyzing data, predicting trends, and engaging with consumers on highly personalized levels. AI-powered tools are now utilized in PR campaigns to analyze large datasets, predict public opinion trends, and develop personalized communication strategies based on audience segmentation.

The Evolution of Public Relation Theory

The results of this research demonstrate the evolution of public relations research themes based on keywords and keyword data from the Scopus database spanning 1964-2024. The analysis categorizes this evolution into five distinct phases, each representing a stage in public relations theory development: 1.0, 2.0, 3.0, 4.0, and 5.0, also known as the Artificial Intelligence Era.

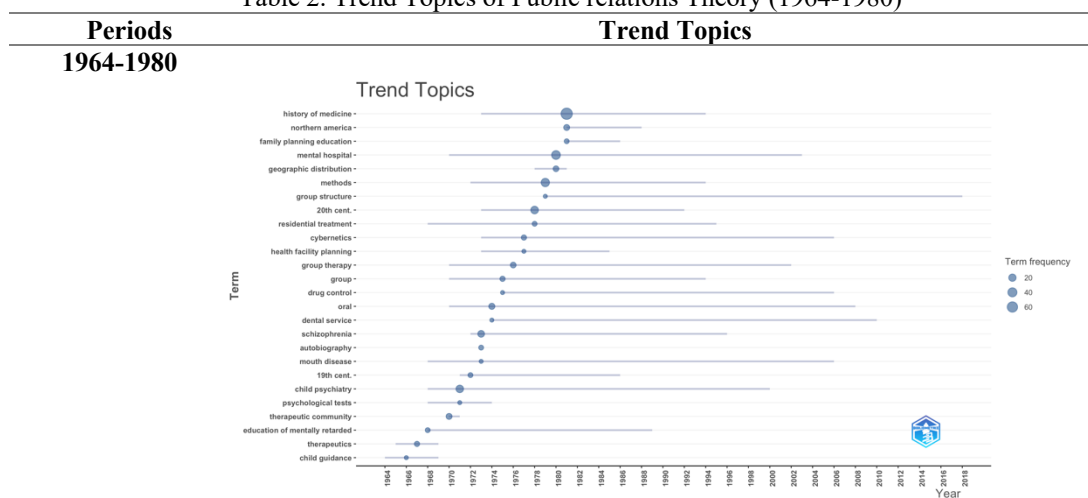
Phase 1.0 marks the initial period of public relations, characterized by a focus on issuing press releases, managing media relations, and largely one-way communication aimed at disseminating information. Phase 2.0, in contrast, signals a shift towards two-way communication, where the emphasis began to fall on building and maintaining relationships with stakeholders, suggesting an early move toward engagement and dialogue within public relations.

In Phase 3.0, there is a transition toward a more strategic approach, integrating public relations with broader organizational goals. This phase reflects the evolution of PR as a component of comprehensive organizational strategies, beyond media relations and event promotion. Phase 4.0 coincides with the digital era, where social media and online reputation management became integral to public relations practices. This stage is defined by the rise of interactive communication channels, where digital platforms allowed real-time engagement, reputation tracking, and data-driven PR decisions.

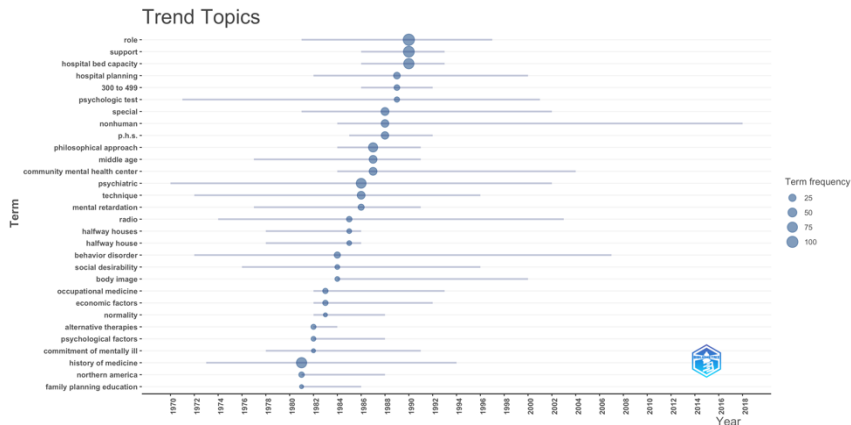
Phase 5.0, the Artificial Intelligence Era, represents the current landscape of public relations, distinguished by the adoption of AI technologies. PR practices now utilize AI tools for content generation, data analytics, and predictive modeling, allowing for more precise, audience-tailored communication strategies and enhanced capacity to anticipate public reactions.

By examining publication and citation patterns over these five phases, this study provides a comprehensive overview of dominant themes, emerging trends, and shifts in public relations theory. Understanding these patterns equips PR professionals to stay informed of the latest advancements and adjust their strategies to align with the evolving landscape. Future research could further investigate these trends by analyzing the specific drivers behind each phase and assessing their influence on public relations theory and practice.

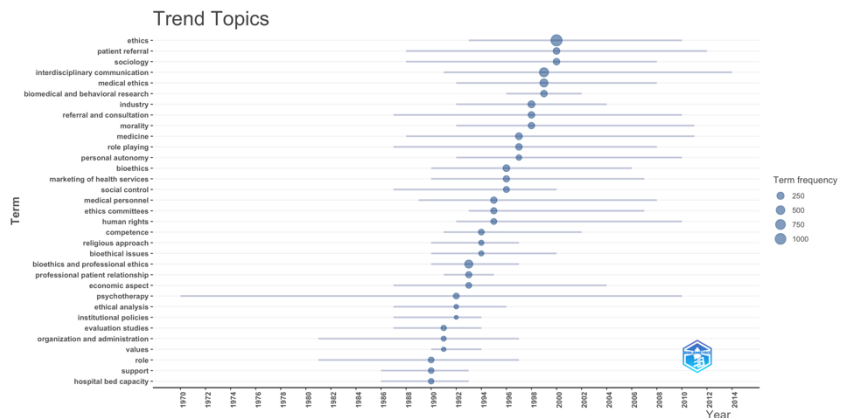
Table 2. Trend Topics of Public relations Theory (1964-1980)



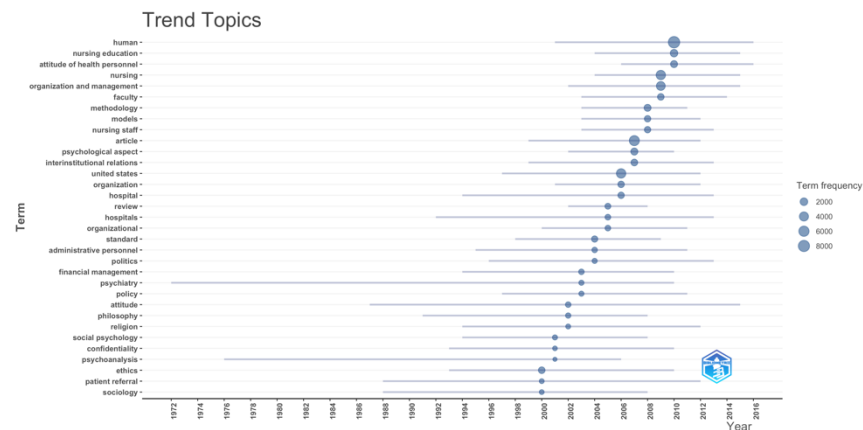
1981-1990



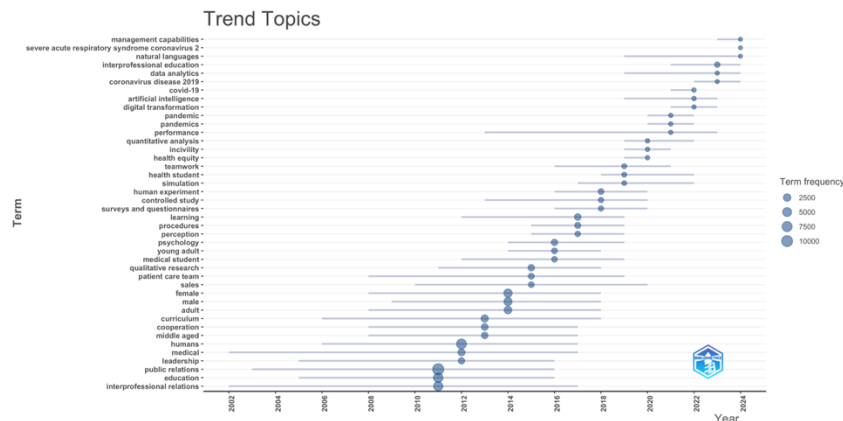
1991-2000



2001-2010



2011-2024



This analysis of publication and thematic patterns provides a valuable summary of core topics, emerging trends, and evolving paradigms within public relations theory over time. By understanding these trends, public relations professionals can stay current with advancements in their field and adapt their strategies to meet changing demands. Future research might further explore these trends by examining the specific factors driving their development and assessing their impact on both public relations theory and practice.

Shifts in communication technology, such as the advent of social media and digital platforms, as well as organizations' growing need to engage meaningfully with stakeholders and address societal expectations, have significantly influenced the evolution of public relations. In the analysis, Table 2 presents an overview of these trends, while Table 3 offers a detailed breakdown of themes across various stages of public relations development. These tables highlight the complex interplay between technological, organizational, and societal factors that shape public relations theory and practice.

Table 3. The Phase of Public Relations Theory (1.0, 2.0, 3.0, 4.0, 5.0)

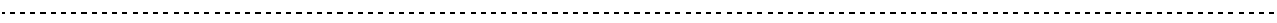
Period	Theme and focus	Key Topics	Description
Phase 1.0 (1964-1980)	Foundational Era	<ul style="list-style-type: none"> Promotion and publicity in the press Dissemination of public information Dealing with the media Development of professional ethics in PR 	This period saw the introduction of two-way asymmetric communication, where PR focused mainly on shaping public opinion, often emphasizing persuasion.
Phase 2.0 (1981-1990)	Growth and Professionalization	<ul style="list-style-type: none"> Symmetrical versus asymmetrical communication models PR as a management function Relationship management 	During this era, PR started to be perceived as a management function. Academics such as James Grunig introduced the four PR models, which had an impact on both theory and practice. The idea of two-way symmetrical communication, which promotes mutual understanding between organizations and their publics, became a focal point of PR theory at this time.
Phase 3.0	Globalization of	<ul style="list-style-type: none"> Digital PR 	The emergence of the internet

(1991-2000)	PR and Technology	and the impact of the internet <ul style="list-style-type: none"> • Global public relations • Corporate social responsibility (CSR) • Reputation management 	and worldwide communication had a notable influence on PR theory. This led to a greater emphasis on the potential of digital technologies to enable more interactive methods of communication. The internet enabled two-way communication and interactive dialogues between organizations and the public as PR moved beyond traditional media.
Phase 4.0 (2001-2010)	Digital PR and Social Media (Social Media Revolution)	<ul style="list-style-type: none"> • Social media strategy in PR • Real-time communication • Online crisis communication • Stakeholder engagement through digital channels 	During this phase, social media platforms such as Facebook, Twitter, and YouTube transformed how PR professionals communicate with audiences. Strategies for managing online reputation, developing influencer relationships, and leveraging real-time data have been adapted to PR theories.
Phase 5.0 (2011-2024)	Artificial Intelligence and Data Driven	<ul style="list-style-type: none"> • AI in communication management • Big data and audience analysis • Predictive analytics for PR strategies • Ethical implications of AI in PR 	The latest phase involves the incorporation of AI and big data into PR strategies. PR is currently greatly impacted by automation, algorithms, and real-time analytics. The utilization of AI allows for more accurate audience targeting, customized messaging, and predictive modeling, empowering PR professionals to make informed decisions and improve engagement.

The evolution of public relations (PR) theory from 1964 to 2024 mirrors broader societal shifts and technological advancements, with each phase reflecting changes in communication dynamics and organizational needs. Beginning as a largely one-way communication tool, PR has transformed into a multifaceted, interactive, and strategic management function deeply embedded within the digital landscape and responsive to evolving societal expectations.

With the advent of the AI era, PR is becoming increasingly data-driven and precise, leveraging AI and big data to craft more targeted and impactful communications. However, this shift also introduces new ethical concerns, particularly around issues of privacy and the risk of diminishing the human element essential to genuine relationship-building. The integration of AI in PR practices makes the field more scientific, but maintaining authenticity and ethical standards remains crucial. Future PR professionals will face the challenge of balancing the advantages of advanced technology with the need for transparent, empathetic, and genuine interactions with their audiences.

This trajectory emphasizes the importance of blending technology with traditional PR values, ensuring that as PR advances, it continues to prioritize ethical standards and real human connections. For clarity, we illustrate the stages in the evolution of PR theory in Figure 2.



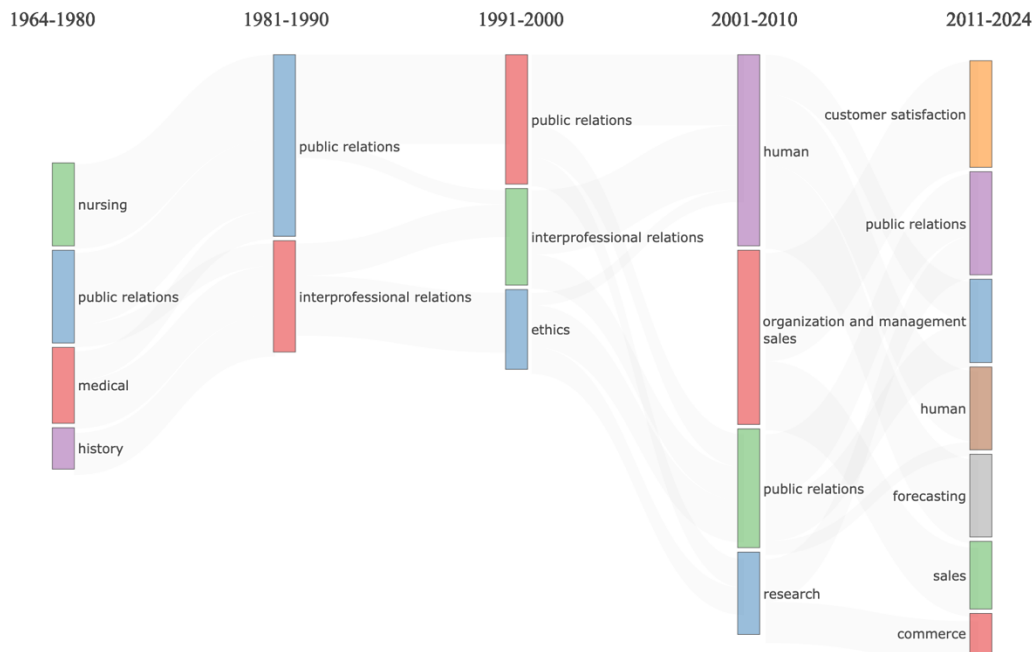


Figure 2. The evolution of Public Relations Theory

Figure 2 illustrates the progression of critical themes in public relations research from 1964 to 2024, segmented into five distinct periods. The chart utilizes color-coded bars of different lengths to signify the relative prevalence or frequency of various topics within each period, offering valuable insights into the changing emphasis of public relations scholarship over six decades.

In the earliest period (1964–1980), public relations research was largely centered on topics related to nursing, medical fields, and historical perspectives. This focus reflects the early application of PR principles in healthcare communications and lays a foundation for the discipline’s development from historical angles. As we move into the 1981–1990 period, a broader focus on "public relations" itself emerges, marking a consolidation of foundational PR concepts and theory. During this time, interprofessional relations became increasingly prominent, highlighting the collaborative and interdisciplinary nature of PR work.

During subsequent periods, research interests diversified from 1991 to 2000, and there was a notable focus on ethics, reflecting a growing concern about the moral dimensions of PR practice. This trend continued to evolve into the 2001–2010 period, where themes such as human factors, organizational management, and sales became focal points, signaling a shift towards human-centered and business-oriented perspectives in PR. The emphasis on human interactions and organizational dynamics during this era reflects a deeper integration of Public Relations with business and management strategies.

The most recent period (2011–2024) highlights the emergence of customer satisfaction as a key theme, alongside continued emphasis on core PR and human-centered elements. Notably, new topics, such as forecasting, sales, and commerce, have appeared in this era, indicating a data-driven and commercially focused approach to Public Relations research. The integration of forecasting presents an exciting avenue for future exploration, offering opportunities to enhance Public Relations strategies through predictive analysis, detection, and the use of algorithms and big data to improve PR outcomes.

To further clarify the evolution of PR theory, Table 4 presents research conducted across these periods, which serves as a model for understanding the progression of PR strategy over time.

Table 4. The research on Public Relations during the period of 1968-2024

Author full names	Title	Year	Source title
1968-1980			
Engel, George L.	Some obstacles to the development of research in psychoanalysis (Engel, 1968)	1968	Journal of the American Psychoanalytic Association
1981-1990			
Ahmed, Zafar U. and Krohn, Franklln B.	Public relations dynamics of an occupancy tax proposal: Ethical responsibilities of hoteliers (Ahmed & Krohn, 1990)	1990	Journal of Hospitality & Tourism Research
Wantman, Charles D.	Restructuring of Corporate AV Presentations: An Analysis of Current Practice	1989	IEEE Transactions on Professional Communication
1991-2000			
Dodson, Joe	Strategic Repositioning Through the Customer Connection (Dodson, 1991)	1991	Journal of Business Strategy
Kitchen, Philip J.	Public Relations: A Rationale for Its Development and Usage within UK Fast moving Consumer Goods Firms (Kitchen, 1993)	1993	European Journal of Marketing
Kitchen, Philip J.	Public relations in the promotional mix: A three-phase analysis (Kitchen, 1996)	1996	Marketing Intelligence & Planning
Hitchins, John	Managing the news for corporate advantage (Hitchins, 1997)	1997	Corporate Communications: An International Journal
de Bussy, Nigel and Ewing, Michael	The stakeholder concept and public relations: Tracking the parallel evolution of two literatures (de Bussy & Ewing, 1998)	1998	Journal of Communication Management
Pinkleton, Bruce E.; Austin, Erica Weintraub; Dixon, Andrea	Orientations in public relations research and campaign evaluation (Pinkleton et al., 1999)	1999	Journal of Marketing Communications
2001-2010			
Hurme, Pertti	Online PR: Emerging organizational practice (Hurme, 2001)	2001	Corporate Communications: An International Journal
Ashcroft, Linda and Hoey, Clive	PR, marketing and the Internet: Implications for information professionals (Ashcroft & Hoey, 2001)	2001	Library Management
Verčič, Dejan; Razpet, Aleš; Dekleva,	International public relations and the Internet: Diffusion and linkages (Verčič et al., 2000)	2001	Journal of Communication Management

Samo ; Šlenc, Mitja			
Lubbers, Charles A.	Media relations in the travel and tourism industry: A co-orientation analysis (Lubbers, 2005)	2005	Journal of Hospitality and Leisure Marketing
Yang, Sung-Un and Grunig, James E.	Decomposing organisational reputation: The effects of organisation–public relationship outcomes on cognitive representations of organisations and evaluations of organisational performance (Yang & Grunig, 2005)	2005	Journal of Communication Management
2011-2024			
Wang, Meredith L.; Waters, Richard D.	Examining how industries engage the media: Comparing American and German agricultural associations' web sites (Wang & Waters, 2012)	2012	Journal of Communication Management
Theunissen, Petra; Wan Noordin, Wan Norbani	Revisiting the concept "dialogue" in public relations (Theunissen & Wan Noordin, 2012)	2012	Public Relations Review
Marshall, Laura H.	Blogging about the Affordable Care Act: A rhetorical analysis of weblogs kept by the Democratic and Republican Parties and the White House (Marshall, 2017)	2017	Public Relations Inquiry
Grygiel, Jennifer; Lysak, Suzanne	Police Social Media and Broadcast News: An Investigation into the Impact of Police Use of Facebook on Journalists' Gatekeeping Role (Grygiel & Lysak, 2021)	2021	Journalism Practice
Tong, Suk Chong	Public relations practice in the digital era: trust and commitment in the interplay of interactivity effects and online relational strategies (Tong, 2022)	2021	Journal of Marketing Communications
Nutsugah, Noel and Senanu, Bright	On the Tech Trek and Industrial Revolutions: Unravelling the Impact of Generative AI on Public Relations Praxis in Africa (Nutsugah & Senanu, 2024)	2024	Journal of Public Relations Research
Bykov, Ilya A.	Parsing the Big Data for PR-purposes in Digital Society (Bykov, 2024)	2024	Proceedings of the 2024 Communication Strategies in Digital Society Seminar, ComSDS 2024
Fyadh, Mohammed Ahmed ; AL-Zoubi, Areen	Public Relations and the Use of Artificial Intelligence in Modern Management: An Applied Study on Employees of Some Institutions in the United Arab Emirates (Fyadh & AL-Zoubi, 2024)	2024	Studies in Systems, Decision and Control

According to the table, the early phases of public relations research (1968–1980) highlighted traditional media's dominance, relying heavily on one-way communication channels like print, radio, and television. Scholars of this period primarily concentrated on how public relations could be used to establish organizational legitimacy and shape public perceptions through controlled messaging. Research titles from this phase indicate a strong focus on the social responsibilities of public relations, where media served as a strategic tool for reputation management and reinforcing organizational image.

From the 1980s to the 1990s, the emergence of digital tools and early internet applications marked a shift towards more interactive forms of media (Phase 2.0 and Phase 3.0). Researchers increasingly examined how public relations could leverage these developing digital platforms to foster stronger audience engagement. The study titles from this era introduced concepts like "customer connection" and "public relations dynamics," reflecting a growing awareness of the potential for more interactive communication. This period demonstrated a shift in the field's approach, evolving from a model centered on information dissemination to one emphasizing two-way, dialogic interaction.

CONCLUSION

The development of public relations theory from 1964 to 2024 reflects broader societal shifts and advances in technology. Our analysis highlights a clear evolution from traditional, one-way communication frameworks to sophisticated, interactive, and data-driven methods. In the latest period (2011-2024), the integration of artificial intelligence and big data analytics marks a pivotal transformation in public relations, allowing for highly accurate audience segmentation, personalized communication, and predictive analysis.

This evolution demonstrates a shift in public relations from a primarily promotional tool to a strategic, multidimensional management function deeply embedded within the digital environment. The transition from traditional media outlets to social media platforms and AI-enhanced communication channels has profoundly influenced PR strategies and tactics. As technology reshapes the field, PR professionals face the challenge of harnessing these new tools responsibly, balancing innovation with ethical standards and building genuine audience connections.

While AI and data-driven strategies present unparalleled opportunities for optimizing public relations, they also raise significant concerns regarding privacy, ethics, and the potential undervaluing of human judgment in relationship-building. Future research is crucial for exploring these tensions, ensuring that PR leverages technological advancements while maintaining its core purpose: fostering relationships between organizations and their audiences.

This study has limitations. Firstly, our analysis relies solely on articles from the Scopus database, which may not capture the full spectrum of PR literature. Secondly, segmenting articles into distinct phases is a challenge given the complex and often overlapping nature of theoretical developments. Finally, focusing exclusively on English-language publications may exclude valuable contributions from non-English-speaking scholars. Future research should address these limitations by incorporating additional databases, developing more nuanced periodization, and including multilingual sources for a broader, global perspective on PR theory.

Our findings suggest several promising directions for future research in public relations, particularly regarding the integration of artificial intelligence and emerging technologies. Key areas include examining the ethical implications of AI in PR, exploring human-AI collaboration, using predictive analytics in crisis communication, and balancing personalization with privacy. New frameworks are needed to measure PR effectiveness in the AI era, alongside investigations into the cross-cultural applications of AI-driven PR strategies, the long-term impact of AI on the PR profession, and the potential uses of technologies like blockchain and virtual reality in PR.

Exploring these areas can deepen our understanding of public relations in the context of artificial intelligence and technology. Such research is pivotal in shaping the future of the field by addressing essential questions at the intersection of technology, ethics, and communication. Through these efforts, scholars and practitioners can work toward public relations strategies that leverage technological advancements while upholding ethical standards and fostering authentic connections in an evolving digital world.

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REFERENCES

- Abdulai, M., Ibrahim, H., & Anas, A. L. (2023). The role of indigenous communication systems for rural development in the Tolon District of Ghana. *Research in Globalization*, 6, 100128.
- Ahmed, Z. U., & Krohn, F. B. (1990). Public Relations Dynamics of an Occupancy Tax Proposal: Ethical Responsibilities of Hoteliers. *Hospitality Research Journal*, 14(2), 373–381. <https://doi.org/10.1177/109634809001400240>
- Alikilic, O., & Atabek, U. (2012). Social media adoption among Turkish public relations professionals: A survey of practitioners. *Public Relations Review*, 38(1), 56–63.
- Allagui, I., & Breslow, H. (2016). Social media for public relations: Lessons from four effective cases. *Public Relations Review*, 42(1), 20–30.
- Arief, N. N., & Saputra, M. A. A. (2019). Kompetensi Baru Public Relations (PR) Pada Era Artificial Intelligence. *Jurnal Sistem Cerdas*, 2(1), 1–12.
- Ashcroft, L., & Hoey, C. (2001). PR, marketing and the Internet: implications for information professionals. *Library Management*, 22(1/2), 68–74. <https://doi.org/10.1108/01435120110358952>
- Babatunde, K. A. (2022). Public relations and social media for effective crisis communication management. *Jurnal Bina Praja*, 14(3), 543–553.
- Bourne, C. (2019). AI cheerleaders: Public relations, neoliberalism and artificial intelligence. *Public Relations Inquiry*, 8(2), 109–125.
- Bykov, I. A. (2024). Parsing the Big Data for PR-purposes in Digital Society. *2024 Communication Strategies in Digital Society Seminar (ComSDS)*, 25–28. <https://doi.org/10.1109/ComSDS61892.2024.10502046>
- Carah, N. (2021). Media and society: Power, platforms, and participation. *Media and Society*, 1–456.
- Çeber, B., & Bilbil, E. K. (2024). Yapay Zekâ Uygulamalarının Halkla İlişkilerde İdeal Kullanımına Yönelik Bir Analiz. *Etkileşim*, 13, 110–141.
- de Bussy, N., & Ewing, M. (1998). The stakeholder concept and public relations: Tracking the parallel evolution of two literatures. *Journal of Communication Management*, 2(3), 222–229. <https://doi.org/10.1108/eb023463>
- Dodson, J. (1991). Strategic Repositioning Through the Customer Connection. *Journal of Business Strategy*, 12(3), 4–7. <https://doi.org/10.1108/eb039408>
- Engel, G. L. (1968). Some Obstacles to the Development of Research in Psychoanalysis. *Journal of the American Psychoanalytic Association*, 16(2), 195–204. <https://doi.org/10.1177/000306516801600201>
- Fadillah, D., & Wibowo, A. A. (2022). the Fall of Public Relation Officer and the Rise of Influencer in the Indonesian Government. *Profetik: Jurnal Komunikasi*, 15(1), 19–33.
- Fyadh, M. A., & AL-Zoubi, A. (2024). Public Relations and the Use of Artificial Intelligence in Modern Management: An Applied Study on Employees of Some Institutions in the United Arab Emirates. In B. Alareeni & I. Elgedawy (Eds.), *Opportunities and Risks in AI for Business Development: Volume 1* (pp. 901–913). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-65203-5_77
- Galloway, C., & Swiatek, L. (2018). Public relations and artificial intelligence: It's not (just) about robots. *Public Relations Review*, 44(5), 734–740.
- Grygiel, J., & Lysak, S. (2021). Police Social Media and Broadcast News: An Investigation into the Impact of Police Use of Facebook on Journalists' Gatekeeping Role. *Journalism Practice*, 15(7), 994–1011. <https://doi.org/10.1080/17512786.2020.1759123>
- Herbst, D. G. (2014). Public Relations in the Digital World: Global Relationship Management. *Proceedings of the 2014 International Conference on Digital Media And Social Inclusion, Istanbul*.
- Hitchins, J. (1997). Managing the news for corporate advantage. *Corporate Communications: An International Journal*, 2(3), 95–100. <https://doi.org/10.1108/eb046539>
- Hurme, P. (2001). Online PR: emerging organisational practice. *Corporate Communications: An International Journal*, 6(2), 71–75. <https://doi.org/10.1108/13563280110391016>
- Johnson, D. G., & Verdicchio, M. (2017). AI anxiety. *Journal of the Association for Information Science and Technology*, 68(9), 2267–2270.
- Kent, M. L., & Li, C. (2020). Toward a normative social media theory for public relations. *Public Relations Review*, 46(1), 101857.

- Kertati, I., Sanchez, C. Y. T., Basri, M., Husain, M. N., & Tj, H. W. (2023). Public relations' disruption model on chatgpt issue. *Jurnal Studi Komunikasi*, 7(1), 34–48.
- Khan, A., & Hussain, A. (2022). A bibliometric study of collaborative research productivity among library and information science academicians in Pakistan 1975–2021. *Global Knowledge, Memory and Communication*, 72(8), 753–764. <https://doi.org/10.1108/GKMC-10-2021-0166>
- Kitchen, P. J. (1993). Public Relations: A Rationale for Its Development and Usage within UK Fast moving Consumer Goods Firms: within UK Fast moving Consumer Goods Firms: *European Journal of Marketing*, 27(7), 53–75. <https://doi.org/10.1108/03090569310040352>
- Kitchen, P. J. (1996). Public relations in the promotional mix: a three-phase analysis. *Marketing Intelligence & Planning*, 14(2), 5–12. <https://doi.org/10.1108/02634509610110741>
- Lahav, T., & Zimand-Sheiner, D. (2016). Public relations and the practice of paid content: Practical, theoretical propositions and ethical implications. *Public Relations Review*, 42(3), 395–401.
- L'Etang, J. (2013). Public relations: A discipline in transformation. *Sociology Compass*, 7(10), 799–817.
- Liew, F. E. E. (2021). Artificial Intelligence Disruption in Public Relations: A Blessing or A Challenge? *Journal of Digital Marketing and Communication*, 1(1), 24–28.
- Lubbers, C. A. (2005). Media Relations in the Travel and Tourism Industry: A Coorientation Analysis. *Journal of Hospitality & Leisure Marketing*, 12(1–2), 41–55. https://doi.org/10.1300/J150v12n01_04
- Mardhika, H. (2023). How the introduction of AI (Media Monitoring) tools affects the field of public relations. *Jurnal Manajemen Bisnis*, 10(2), 555–569.
- Marshall, L. H. (2017). Blogging about the Affordable Care Act: A rhetorical analysis of weblogs kept by the Democratic and Republican Parties and the White House. *Public Relations Inquiry*, 6(1), 23–45. <https://doi.org/10.1177/2046147X16679224>
- McCorkindale, T., & DiStaso, M. W. (2014). The state of social media research: Where are we now, where we were and what it means for public relations. *Research Journal of the Institute for Public Relations*, 1(1), 1–17.
- Medias, F., Rosari, R., Susanto, A. A., & Ab Rahman, A. B. (2024). A bibliometric analysis on innovation in philanthropy research: a study based on Scopus database. *International Journal of Innovation Science*, 16(4), 748–771.
- Mohamed, K., & Bayraktar, Ü. A. (2022). Artificial intelligence in public relations and association rule mining as a decision support tool. *SSRG International Journal of Humanities and Social Science*, 9(3), 23–32.
- Nobre, G. (2020). *Artificial Intelligence (AI) in communications: Journalism, public relations, advertising, and propaganda*.
- Nutsugah, N., & Senanu, B. (2024). On the Tech Trek and Industrial Revolutions: Unravelling the Impact of Generative AI on Public Relations Praxis in Africa. *Journal of Public Relations Research*, 36(4), 341–359. <https://doi.org/10.1080/1062726X.2024.2368485>
- Panda, G., Upadhyay, A. K., & Khandelwal, K. (2019). Artificial intelligence: A strategic disruption in public relations. *Journal of Creative Communications*, 14(3), 196–213.
- Patra, R. K., Pandey, N., & Sudarsan, D. (2023). Bibliometric analysis of fake news indexed in Web of Science and Scopus (2001-2020). *Global Knowledge, Memory and Communication*, 72(6–7), 628–647. <https://doi.org/10.1108/GKMC-11-2021-0177>
- Peterson, A. (2019). The past, present & future of artificial intelligence in PR. *Cision*. Retrieved November, 22, 2021.
- Pinkleton, B. E., Austin, E. W., & Dixon, A. (1999). Orientations in public relations research and campaign evaluation. *Journal of Marketing Communications*, 5(2), 85–95. <https://doi.org/10.1080/135272699345680>
- Pribadi, A., & Nasution, N. (2021). Digital transformation to the sustainability of public relations profession in the era of disruption. *Commicast*, 2(1), 52–57.
- Rogers, C., Bugg, J., Nyheim, C., Gebhardt, W., Andris, B., Heitman, E., & Fleming, C. (2019). Adversarial artificial intelligence for overhead imagery classification models. *2019 Systems and Information Engineering Design Symposium (SIEDS)*, 1–6.
- Santa Soriano, A., & Valdés, R. M. T. (2021). Engaging universe 4.0: The case for forming a public relations-strategic intelligence hybrid. *Public Relations Review*, 47(2), 102035.
- Scott M. Cutlip, Allen H. Center, G. M. B. (2010). *Effective Public Relations -9/E*. Kencana Prenada , 2010.

- Sennaar, K. (2017). AI in Movies, Entertainment, and Visual Media—5 Current Use-Case. In *TechEmergence*.
- Siregar, K. C., Sopacua, Y., & Alfredo, R. (2024). Digital Revolution In Public Communication Management: A Review Of Opportunities And Challenges For Maluku Regional Police Public Relations In The Digital Era. *Baileo: Jurnal Sosial Humaniora*, 1(3), 244–255.
- Suryantoro, E., Udin, U., & Qamari, I. N. (2023). A bibliometric analysis using VOSviewer: Leadership in infection prevention and control. *Multidisciplinary Science Journal*, 5(2).
- Theunissen, P., & Wan Noordin, W. N. (2012). Revisiting the concept “dialogue” in public relations. *Public Relations Review*, 38(1), 5–13. <https://doi.org/https://doi.org/10.1016/j.pubrev.2011.09.006>
- Tomaszewski, R. (2023). Visibility, impact, and applications of bibliometric software tools through citation analysis. *Scientometrics*, 128(7), 4007–4028.
- Tong, S. C. (2022). Public relations practice in the digital era: trust and commitment in the interplay of interactivity effects and online relational strategies. *Journal of Marketing Communications*, 28(7), 799–819. <https://doi.org/10.1080/13527266.2021.1951814>
- Valentini, C., & Kruckeberg, D. (2012). New media versus social media: A conceptualization of their meanings, uses, and implications for public relations. In *New media and public relations* (pp. 3–12). Peter Lang.
- Valin, J. (2018). *Humans still needed: An analysis of skills and tools in public relations*. <https://doi.org/10.13140/RG.2.2.22233.01120>
- van Osch, W., & Coursaris, C. K. (2014). Social media research: An assessment of the domain’s productivity and intellectual evolution. *Communication Monographs*, 81(3), 285–309.
- Velasco López, J. E., & Cobo Martín, M. J. (2023). *Data-driven scientific research based on public statistics: a bibliometric perspective*.
- Vengadesh, S., Chinna, P. R., & Aravindaraj, K. (2023). A Bibliometric Analysis of Research Trends in Goods Transportation Using the Scopus Database. *Business Perspectives and Research*, 22785337221148810.
- Verčič, D., Razpet, A., Dekleva, S., & Šlenc, M. (2000). International public relations and the Internet: Diffusion and linkages. *Journal of Communication Management*, 5(2), 125–137. <https://doi.org/10.1108/13632540110806712>
- Wang, M. L., & Waters, R. D. (2012). Examining how industries engage the media. *Journal of Communication Management*, 16(1), 20–38. <https://doi.org/10.1108/13632541211198021>
- Yang, S., & Grunig, J. E. (2005). Decomposing organisational reputation: The effects of organisation–public relationship outcomes on cognitive representations of organisations and evaluations of organisational performance. *Journal of Communication Management*, 9(4), 305–325. <https://doi.org/10.1108/13632540510621623>
- Yazdani, W., Ansari, M. S., & Sami, L. (2022). A bibliometric analysis of mandatory corporate social responsibility using rstudio: Based on scopus database. *International Journal of Professional Business Review*, 7(6), e0744–e0744.
- Zhao, X. (2024). A Systematic Review of Public Relations Research in the Context of Artificial Intelligence. *Communications in Humanities Research*, 36, 92–101.
- Zimand-Sheiner, D., & Lahav, T. (2022). Plain old Bess in a different dress? Disruptions of public relations in the digital age. *Public Relations Review*, 48(5), 102250