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Article

A systematic literature review of personification communication of AI anchor

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Abstract: As a product of the integration of AI technology and media, the debate surrounding the potential replacement of human anchors by AI anchors has persisted since their inception. This paper conducts a systematic literature review of research on AI anchors in China from 2000 to 2023, grounded in theories of personalization within the field of communication studies. The analysis aims to compare the differences in personalized representation between AI anchors and human anchors, summarizing the advancements, challenges, and future directions of AI anchor communication based on personality. This contribution seeks to enhance the existing knowledge base surrounding AI anchor research.

Keywords: AI anchors; personification; literature review

1. Introduction

In 1956, John McCarthy introduced the concept of artificial intelligence (AI) at the Dartmouth Conference, proposing the use of machines to simulate human intelligence. Since then, AI has evolved into an independent discipline, expanding into various sectors of society, including journalism. The application of AI technology in journalism encompasses robot writing, big data algorithmic recommendation systems, virtual reality (VR), augmented reality (AR) applications, and AI news anchors (de Lima-Santos, 2021). On 7 November 2018, Xinhua News Agency and Sogou unveiled the world's first synthetic news anchor, which utilized cutting-edge AI technology to deliver live news broadcasts comparable to those delivered by human anchors. This advancement marked a significant breakthrough in real-time audio and image synthesis within the news industry (He, 2018). He Qiang defines an AI anchor as an AI visual representation or technical product that closely resembles a real person, achieved through a combination of AI technologies such as text-to-speech conversion, natural speech synthesis, facial key point feature extraction, lip shape recognition, image recognition and synthesis, and emotion transfer.

While the concept of virtual Image anchors was introduced in 2000, developers have seen broader applications and richer scenarios for AI anchors in China compared to other countries. This has sparked discussions on whether AI anchors can effectively fulfill the audience's media needs akin to human anchors, becoming a subject of public interest and academic research. Researchers have noted a lack of systematic compilation of information on AI anchors, which has led to a lack of clarity and ambiguous challenges in researching and developing this technology. Since the emergence of AI anchors, the question of whether they can meet audience

media needs in the same way as human anchors has been a focal point of public interest and academic research. Scholars began exploring the similarities and differences between AI anchors and human anchors as early as 2001. Recent studies by Yang (2023); Liu et al. (2024) and Yu (2024) suggest that in the era of intelligent media, AI anchors, with their advantages of efficiency, low cost, and 24/7 operation, are gradually integrating into various aspects of media communication. AI anchors have demonstrated robust data processing and analytical capabilities in information gathering, news distribution, and post-production. However, they face limitations in emotional expression and technical capabilities, while human anchors excel in emotional authenticity and creativity. Additionally, the development of AI anchors raises ethical and privacy concerns, particularly regarding potential privacy violations when delivering personalized services. Furthermore, AI anchors struggle with the naturalness and liveliness of simulated eye contact, which may trigger an uncomfortable "uncanny valley" effect, negatively impacting audience evaluations.

A systematic literature review plays a crucial role in addressing research questions by incorporating empirical findings and perspectives from existing literature. By analyzing and synthesizing a wide range of relevant literature, researchers gain insights into AI anchors and their development, influencing future communication patterns and the integration of AI technology in the media industry. This study aims to explore and analyze the current state of AI anchors' personality-based communication through a systematic literature review of Chinese research on the personification of AI anchors. This review, based on the theory of personification communication, will provide essential groundwork for future research endeavors and shed light on the challenges associated with personifying AI anchors.

2. Theoretical overview and research problem

This article initially revises the concept of personification in communication and elucidates the idea of anchor personification, establishing the foundation for a comprehensive literature review.

Personality, also referred to as individuality, originally denoted the masks utilized by ancient Greek theater performers during their acts. In psychological terms, personality encompasses the psychological traits developed by an individual, which exhibit tendencies and stability influenced by internal and external factors. Chen (2017) defines "personification" as attributing human personality traits to inanimate objects, abstract concepts, or natural phenomena. Shi (2019) posits that effective communication of personality in communication science involves the communication subject, symbols, and content to portray distinct personalities, creating emotionally engaging 'characters' that enhance communication strategies. Emphasizing the flow of personality and charm underscores the significance of personality-based communication, reducing psychological distance between sender and receiver, fostering intimacy, demonstrating humane care, establishing emotional connections with the audience, and optimizing communication effectiveness. Qiang (2022) posits that the concept of personified communication originated during the proliferation of mass communication and the rise of interpersonal communication. The advancement of technology and the functional aspects of media have

significantly impacted the social role of mass communication, albeit at the expense of diminishing the interpersonal aspect of communication.

Researchers are utilizing the concept of personification in the study of brand communication. Kim et al. (2020) found that anthropomorphic brands elicited more positive evaluations and increased social media interactions compared to non-anthropomorphic brands. Further studies, such as that by Chen and Razzaq (2021), revealed that anthropomorphizing unpopular products facilitated consumer empathy, reducing resistance. However, personification effects are not always favorable; Wassler and Hung (2015) argued that personification can create consumer stereotypes influencing destination choices in tourism marketing. Wang and Li (2018) highlighted how personified violent elements in cartoons could subconsciously impact children's minds, leading to significant social consequences.

Beyond brand personification, scholars explored personification communication in various fields. In political communication, Danielson and Rolandsson (2020) noted a shift from politics to personalities in media focus, emphasizing politicians' authenticity in media appearances. Uysal and Schroeder (2019) suggested that state actors could leverage social media's cult of personality for digital public diplomacy.

In the realm of news reporting and broadcast television media hosts, Jang (2021) and other researchers have observed that news articles incorporating personalized characteristics through algorithms tend to be preferred by readers. This preference results in heightened emotional engagement during the reading process. Furthermore, scholarly attention has shifted towards examining the personality communication of hosts in audiovisual media. For instance, Park (2013) found that viewers perceive higher levels of affinity and short-term memory but lower levels of trust in female hosts compared to male hosts. Amarasekara and Grant (2019) conducted a study comparing technology channels on YouTube and noted that while female-hosted channels attracted more viewers, they received mixed reviews due to viewers' tendency to focus on personal attributes, such as the physical appearance of the female host. In addition to gender-related personality traits, scholars have explored the significant impact of the host's personality on program communication (Landreville and Niles, 2019) analyzed how host style influences Fox News primetime programs by examining host-specific techniques, phrasing, and rhetorical devices. Moreover, Beciu et al. (2018) found in a study comparing political talk shows in Romania that anchors project personal qualities by presenting themselves as "critical watchdogs" or "ordinary people." However, these research studies focus on the utilization of host-personality communication rather than the examination of host-personality communication as a subject in itself.

Chinese academics initiated investigations into the notion of personification in host communication at an early stage. Yuan (2003) defines personality as a form of hosting style, emphasizing the significance of the host's inner traits, outer voice, and image in shaping their style. Chen (2006) argues that hosts humanize communication subjects, creating a sense of realism and personalization in mass communication, fostering a mimetic atmosphere for interpersonal communication. Gao and Teng (2014) highlight the importance of personalizing communication subjects and symbols, as well as the emotional expression of communicators in personalized host communication. Liu and Zhan (2018) suggest that in the era of media convergence,

the skill of personality-based communication is a valuable presenter quality that should adapt to the evolving landscape of convergent communication. Fu (2020) notes the increasing scholarly interest in broadcasting hosts due to their unique characteristics, prompting a shift towards personalized host communication from traditional one-way broadcasting. Qiu (2020) discusses the development of charisma in broadcasting hosts, emphasizing the role of sensibility and rationality in shaping hosts' image and enhancing professional communication efficacy. Gao (2014) defines hosts' communication behavior as possessing interpersonal communication characteristics within the realm of mass communication, underscoring the importance of hosts exhibiting personified traits.

From the above studies, we can conclude that anchor personality consists of two distinct components. First, it encompasses the comprehensive external characteristics displayed by the anchor, including easily perceivable traits such as voice, facial appearance, and even signature gestures. Second, it refers to the stable psychological and emotional traits that an anchor must possess to establish an emotional connection with the audience. These traits often become recognizable labels for the anchor, described with terms such as rational, elegant, humorous, and gentle. All of these elements manifest during the communication process, where the anchor functions as a mass communication entity characterized by interpersonal communication traits. This paper synthesizes the above research to determine that the study of anchor personification should include the following key points:

(1) The anchor's appearance characteristics that the audience can recognize, including his/her unique voice;
(2) The anchor's stable emotional and personality characteristics;
(3) The function that serves as an anchor in the production of audiovisual products.

Therefore, this article attempts to answer the following questions through a systematic literature review:

(1) Does the external representation of AI anchors possess personalized characteristics?
(2) Do the emotions and personality of AI anchors possess anthropomorphic characteristics?
(3) Do AI anchors perform personalized functions?
(4) How can AI anchors become more human-like in terms of personality?

The article will explore the personalized features of AI anchors, comparing them to real human anchors to assess their potential to replace or closely mimic human functions. The discussion surrounding these questions has been prominent since the introduction of AI anchors, highlighting the need to address gaps in knowledge related to human emotions and personality. By identifying these gaps, the article aims to provide insights into achieving the desired benefits of personalizing AI anchors.

3. Methodology

Systematic Literature Reviews (SLRs) serve as a valuable instrument for pinpointing knowledge gaps and research necessities within a specific domain (García-Peñalvo, 2022). This systematic review adhered to the 2020 Preferred

Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines to delineate eligibility criteria, information sources, search strategies, selection procedures, data collection methods, and datasets.

The study concentrates on the prevalent applications of AI anchors in China. The literature gathered predominantly comprises Chinese-language publications by Chinese scholars. The search was executed within CNKI (China National Knowledge Infrastructure), the largest academic database in China. CNKI stands as the world's largest continuously updated Chinese academic journal full-text database, encompassing 7400 significant academic journals in China. By February 2024, the database had amassed over 60 million Chinese academic journal articles, rendering it a valuable resource for researchers exploring diverse facets of Chinese culture, history, current events, and more (Zhang, 1999).

Organizing the comprehensible literature on AI anchors in a precise and incontrovertible manner while establishing clear boundaries presents a formidable challenge. This complexity arises from the interdisciplinary nature of this burgeoning research field, spanning from computer science to communication, psychology to human factors, and philosophy to ethics. Consequently, the systematic review was conducted in two phases:

(1) Employing a Boolean search method on CNKI，the researchers investigated papers discussing interpretability: ("Artificial Intelligence" or "AI" or "Virtual") and ("Anchor" or "News Anchor" or "Announcer" or "Host" or "Synthetic Anchor"). This query yielded 597 results from 2000 to 2023.

(2) A detailed reading of the abstracts of the 597 articles identified in the first phase led to the selection of those that were thematically related to concepts such as personality, personification, and personified communication, or that discussed the similarities and differences between AI anchors and human anchors, as well as their substitution and collaborative relationships. This process narrowed the selection down to 112 articles, eliminating those that focused solely on the historical development, technical models, or communication characteristics of AI anchors.

(3) In the second phase, a comprehensive reading of the 112 selected articles was conducted, focusing on those that discussed personified communication related to AI anchors in significant detail. This led to the final selection of 79 articles. To ensure the accuracy of the article selection, this research iterated through the process twice until saturation was reached, confirming that no additional articles could be identified. Ultimately, the 79 articles selected in the third phase were validated as effective research samples.

Following a comprehensive analysis of the chosen articles, two primary categories were identified: an examination of the predicament of AI anchors' personification communication, encompassing the attributes of AI anchors' personification communication and their deficiency in personification communication; and an evaluation of the trajectory of AI anchors' personification communication, including the progress of AI anchors in terms of personification with technological advancements and prospective solutions. These categories were

derived from the selected articles to better address the study's central inquiry of whether AI anchors can feasibly supplant human counterparts.

The principal aim of this study is to scrutinize the advancement of AI anchor personification research by tracing the evolution of such research in the pertinent literature and summarizing it across various themes.

4. Finding and discussion

Drawing from the theoretical framework underpinning this investigation on the personification communication of announcers and presenters, the study identified that the initial focus was on evaluating whether AI anchors could supplant actual hosts and their communicative roles. This evaluation involved an examination of the personification traits and functions exhibited by real hosts as documented in existing literature. Consequently, the study uncovered a lack of personification in AI anchors. Ongoing research has delved into the quandary of imbuing AI anchors with personification, exploring aspects such as the deficiency of interpersonal communication skills in AI anchors, the absence of human-like attributes in AI anchors, and the limitations of AI technology in rendering AI anchors more human-like. Additionally, scholars have been attentive to the trajectory of personification communication in AI anchors, aiming to furnish valuable insights for research and application entities engaged with AI anchors.

In defining the AI anchor, it is imperative for researchers to conceptualize the AI anchor as a quasi—"human entity". Notably, in 2000, the United Kingdom's United Press Group introduced the pioneering virtual human news anchor, Ana Nova. Concurrently, Chinese research on virtual human image anchors was initiated, positing that virtual presenters are digitally synthesized characters created by technicians using 3D simulation. These virtual entities can assume the role of a presenter through post-production techniques, dubbing, and other technical processes (Lu, 2001). This notion elucidates that the virtual presenter serves as an extension of a human being and can partially undertake the presenter's role. With technological advancements, as highlighted earlier in 2018 by He Qiang in defining AI hosts, the emphasis lies not only on integrating technical jargon but also on "developing AI visual representations or technical products that mirror real individuals." In this context, "resembling real people" encompasses the utilization of facial key point extraction technology to generate images resembling actual individuals and executing tasks akin to those performed by real individuals.

4.1. Whether the external representation of AI anchors possesses personalized characteristics

The maintenance of stable and distinct physical characteristics is essential for individuals to be easily recognizable and stand out. For hosts, whose primary tool is their voice, maintaining a consistent voice image is crucial for identification. Researchers have explored the development of AI anchors by frequently comparing them to human anchors. It has been observed that while AI anchors closely resemble real individuals in appearance and voice, they are still unable to achieve a complete "homogeneous effect".

Presently, most AI anchors are designed using the image and voice of real anchors. Can this form of "reproduction" through AI technology achieve the same impact? Yu (2020) delved into the characteristics of disembodied cognition and embodied cognition of AI anchors from a cognitive science perspective. He suggested that AI anchors, which utilize the body image of real anchors as a reference, exhibit traits of embodied cognition. This involves adopting the body image of human news anchors on the screen, personifying them, and stimulating the audience's imagination with familiar voices and images. The disembodied cognition aspect is mainly seen in its efforts to mimic the news broadcasting and information dissemination effects of real anchors by replicating the voice, lip movements, facial expressions, actions, and appearance of real prototypes in news broadcasting. These features aim to blur the distinctions between AI anchors and real-life anchors, which still persist. Some researchers have also noted that AI anchors with real-life images typically have voices generated directly from technologically produced speech libraries. In contrast, AI anchors with anime images may have their voices dubbed by real individuals, created using advanced speech libraries, or synthesized into speech using technology. Both types of AI anchors can incorporate elements of personality and emotions. AI anchors with anime images engage in interactions with the audience through online communities, while those with real-life images are primarily used in traditional broadcasting and hosting. However, maintaining their personality and emotions in the later stages is challenging (Hu, 2021).

Researchers generally concur that AI avatars, created by simulating the image of a real person, essentially achieve "similarity" not only in appearance and its details but also in terms of image. This is facilitated by new technologies such as natural language processing and voice animation synthesis, which aid in achieving realistic language, voice, and their nuances. Consequently, broadcasting becomes more natural and vivid (Guo and Huang, 2022). Nevertheless, current AI anchors are still mere imitations of real anchors and have not yet transformed into representations of the audience. To gain audience recognition, understanding audience preferences is crucial. This can begin by considering external conditions and adjusting dress, clothing, and makeup based on the preferences of the target audience. This alignment with the target audience's social status, values, and positioning reinforces the audience's sense of belonging and enhances their identity (Liu et al., 2021). While the appearance is already highly realistic, it falls short of achieving a "divine resemblance," as noted by other researchers. Hao (2023) argues that, with technological advancements, although AI synthetic anchors have achieved "anthropomorphism" in terms of expressions and movements, to possess "souls," they must align with the aesthetic standards and consumption habits of Generation Z youth. The AI synthetic anchor must be in line with the aesthetic standards and consumption habits of Generation Z. Consequently, AI synthetic anchors continue to revolutionize news broadcasting, multilingual broadcasting, and other aspects of the field. They enhance the audience's sense of novelty through innovations in image and scene dimensions and provide tailored emotional value input for different programs through virtual anchors.

4.2. Whether the emotions and personality of AI anchors possess anthropomorphic characteristics

Emotions are derived from real-life encounters, while AI anchors are generated through digital technology processes. Despite their ability to fulfill the functions and responsibilities of human anchors, AI anchors lack the life experiences necessary to evoke emotions akin to those of human beings (Yang, 2017). In the domain of news editing and broadcasting, humans are the primary agents utilizing tools, as machines are incapable of discerning the underlying truths of news stories or replicating human emotions. Humans' logical reasoning in complex relationships and value judgments on facts surpass that of machines (Zuo, 2018). Therefore, media professionals are deemed essential to provide value interventions for potential issues arising from AI technology. It is evident that AI anchors do not possess the advantage of personification.

The current performance of AI anchors in specific tasks reveals their incomplete understanding of emotions, encompassing both the recognition and effective conveyance of emotions. Announcer hosts exhibit a blend of emotional and rational thinking shaped by intricate interactions, resulting in a charismatic communication style. Qiu (2020), who delineates personality-based communication for announcer hosts, argues that AI anchors currently lack proficiency in "temperature" and "distance". "Temperature" pertains to subjective emotion and value orientation, while "distance" refers to the grasp of language proportion. Hence, AI anchors need to integrate rich, three-dimensional sensory warmth with an objective, composed, and rational demeanor in their personality. The ability of AI anchors to accurately represent the media's stance in news broadcasting concerning emotional balance remains a subject of consideration. Wang and Du (2019) analyzed the current deficiencies of AI anchors in emotion recognition, concluding that AI's performance in broadcasting and hosting is still in its nascent stages. Improvement is required in expressing attitude and emotion in broadcasting, as well as in the subjective aesthetic understanding of language expression, such as feelings and imagination. This renders the individual application scenarios of current AI hosts unstable for further market testing. Despite enhancements in the personality traits of AI anchors, the timeline for these machines to experience emotions akin to humans remains uncertain.

Personality, as previously mentioned, encompasses emotional and deeper aspects exhibited by an individual. Researchers have predominantly provided negative evaluations of AI anchors in terms of their presentation of personality. Cui and Tong (2022) posit that the current AI technology, categorized as "weak AI", does not yet possess the capability to imbue AI anchors with self-organization and an advanced human-like mind. The creation of personified virtual news anchors under digital technology relies on the creator's comprehension of the audience's psychology to integrate and formulate persona labels in the database. This method of persona creation condenses a "person" into a concise set of labels, facilitating rapid dissemination and easy memorization. However, it often results in personas that are similar and easily replicated. In contrast to the personality-based communication pursued by human anchors, the emphasis on similarity and reproducibility is

pronounced. Some researchers have revisited the fundamentals of communication, focusing on speech as the primary communication tool to explore the challenges faced by AI anchors. The outcome suggests that the communication between AI synthetic anchors and humans constitutes a form of pseudo interaction, leading to a significant communication dilemma in human-computer interaction. This dilemma is characterized by a lack of personality in AI anchors, resulting in a decline in the spiritual essence of oral communication (Gao, 2023).

Guan and Lv (2020) conducted a more detailed comparison of the differences in emotional expression between AI anchors and human anchors. They argue that when reporting a positive and heroic news story, human anchors exhibit enthusiasm and smile broadly; conversely, when delivering negative news that exposes social issues, human anchors display intense expressions, such as wide-eyed gazes and furrowed brows. Audiences watching these news broadcasts can perceive the human anchors' attitudes and value orientations toward the events, which subtly influences their perceptions.

If AI virtual news anchors were used in place of human anchors in these two scenarios, the limitations of AI in emotional expression could create a sense of dissonance for the audience. This dissonance not only risks triggering the uncanny valley effect but also directly impacts the overall experience, making it impossible to compare to the expressive and appropriately nuanced delivery of human anchors. Such observations provide a clearer understanding of the emotional deficits present in AI anchors.

4.3. Whether AI anchors perform personalized functions

The current utilization of AI anchors in audio-visual media primarily focuses on delivering news and weather updates. Few media platforms incorporate image projection technology to depict AI anchors within news scenes. The AI anchor assumes a personified role during news broadcasts and program hosting, which is perceived by the audience. Since the introduction of virtual anchors, researchers have explored their ability to fulfill the same functions as human anchors in news production and exhibit comparable personality traits. Initially, technical limitations hindered the use of virtual hosts in news broadcasting, as noted by Tian Zhongchu in 2000. Challenges included difficulties in instant communication with specific individuals, as well as limitations in conveying complex human expressions. With the emergence of AI anchors, researchers are now assessing their suitability for news broadcasting at a more granular level. Yang (2021) suggests that AI anchors may lack individuality and exhibit uniform broadcasting patterns due to inherent limitations and preset configurations. In contrast, human anchors possess a unique style and charismatic personality derived from their extensive life experiences and prolonged hosting tenures, which are essential to their professional craft. Broadcasting is considered a form of artistic language and textual expression. It is widely acknowledged that AI anchors are proficient in conveying literal content but fall short in expressing media stance or textual connotations. According to Yu (2022), the current stage of virtual human technology (the shape stage) is relatively

advanced and undergoing widespread implementation. AI anchors are primarily tasked with communicating backstage content.

In addition to their broadcasting capabilities, hosts play a vital role in engaging with audiences. Virtual anchors inherit the interpersonal communication function of traditional anchors but are unable to replicate the same level of interpersonal interaction as human anchors (Bao, 2001). The absence of immediate audience engagement, as facilitated by live anchors, represents a diminution in the interpersonal aspect of mass communication. This shift away from interpersonal communication as a core attribute is unlikely to be substituted by non-interactive communication forms (Gao, 2006). According to Paul Levinson's theory on the 'humanization trend' of media evolution, AI anchors, despite their high level of simulation, are viewed as a novel 'remedial medium' with toy-like characteristics. Consequently, their impact on news production is expected to be limited (Yi, 2019). Shao et al. (2020) argue that AI anchors, as technologically generated doppelgänger models, struggle to deliver physical narratives as naturally and seamlessly as human anchors. Even when mimicking real individuals, they lack the spontaneity and adaptability of physical presence.

A review of existing literature indicates that the majority of studies concur that AI anchors are unable to replace human anchors. This underscores the significant challenges AI anchors encounter in achieving personified communication. Given the limitations in replacing human anchors, researchers have proposed alternative approaches to enhance the personification communication characteristics of AI anchors.

4.4. How can AI anchors become more human-like in terms of personality?

The development of AI anchor personification is a significant area of interest for researchers and developers in the field of AI anchors, as well as for media consumers. While current AI anchors are unable to fully replace human anchors, there is a growing focus on how AI anchors can evolve towards more personality-based communication.

Researchers are exploring two main directions to enhance AI anchors: improving their personability and developing distinct personalities. By incorporating human-like qualities such as facial expressions, voice tones, body language, and social norms, AI anchors can enhance their personality traits. This integration of social elements with reality helps AI anchors establish stronger user engagement. Studies by Li and Li (2019) emphasize the importance of personifying AI anchors to enhance audience experiences through character positioning and image creation.

Some researchers argue that AI anchors should develop their own independent personalities in addition to becoming more human-like. This shift marks a transition in AI technology towards shaping the subject, where AI virtual hosts integrate situational and social awareness to enhance cognitive interactions and emotional evolution. According to Yao and Huang (2023), AI virtual anchors possess personality and emotion, making them akin to 'human beings' embedded in social contexts.

The advancement of media technology plays a crucial role in enabling AI anchors to mimic human perception and achieve naturalness in communication. As AI anchors become more integrated into society, they are moving away from being perceived as mere 'toys'. Researchers like Cui and Tong (2022) suggest personalizing AI anchors as scenario-based 'companions' to enhance multi-modal output and foster in-depth interaction with users.

In addition to focusing on enhancing human-like communication, it is essential to consider the underlying computer technology supporting AI anchors to improve their human-like qualities. Producers are encouraged to overcome the mechanization associated with computers and leverage computer graphic production to create more realistic AI anchors in terms of voice quality, image design, interpersonal interaction, and emotional perception.

5. Innovation and contribution

The systematic literature review on the personification communication of AI anchors underscores the significance of investigating and comprehending this concept in light of the continuous advancement and transformation of AI technology and media. Previously, research in China concerning the personification of AI avatars was dispersed across various research avenues. This study, for the first time, categorizes the literature based on the theory of personification communication, offering scholars a more defined cognitive trajectory and framework for further exploration.

Within the realm of communication studies, a systematic literature review on the personification of AI agents can provide profound insights and direction for both academic research and practical applications. Firstly, such reviews contribute to the expansion of theoretical frameworks. They aid in broadening existing communication theory frameworks, particularly within the domains of human-computer interaction (HCI) and computational communication. Through the systematic examination and synthesis of research on the personification of AI anchors, literature reviews can unveil the roles and influences of AI anchors in the communication process. For instance, they can delve into whether AI anchors demonstrate personification traits akin to human anchors and explore strategies to enhance the credibility, likability, and audience engagement of AI anchors through personification design. Furthermore, they can investigate the dynamics between AI anchors and audiences in human-computer interaction and integrate these discoveries into established communication theories like Uses and Gratifications Theory and Computer-Mediated Communication Theory.

The subsequent section involves a synthesis and evaluation of empirical research, which presents a thorough overview and critical assessment of existing empirical studies, identifying research gaps and proposing future research directions. The literature review compiles various empirical studies on the personification of AI anchors, encompassing experimental research, surveys, and case studies. Through a comparative analysis of these studies, the review aims to evaluate the impact of personification on AI anchors, including aspects such as audience trust in information, memory retention, and emotional responses. Furthermore, it aims to

highlight deficiencies in current research and suggest future research avenues, such as the necessity for longitudinal studies to assess the enduring effects of AI anchor personification.

The subsequent topic delves into the intersection of technology and ethics discourse. This article elucidates the intricate relationship between technology integration and ethical considerations, offering a comprehensive viewpoint to assess the implications of AI anchor personification. The literature review initially explores the technical mechanisms underpinning the personification of AI anchors, such as natural language processing (NLP), affective computing, and virtual character generation technology. Simultaneously, it delves into the ethical dilemmas arising from these technologies in practical contexts, such as safeguarding privacy, ensuring data security, and potential societal impacts. Through a holistic examination of technology and ethics, the review establishes a theoretical basis for formulating relevant policies and regulations.

The subsequent aspect pertains to providing guidance for practical implementation. This article furnishes recommendations for the effective application of AI anchors, aiding media entities and technology firms in designing and utilizing AI anchors more efficiently. By synthesizing and evaluating successful case studies and application instances, literature reviews can offer best practices and strategies for implementation. For instance, strategies on enhancing audience acceptance and engagement with AI anchors through personalized design, and the effective utilization of AI anchors in diverse communication settings like news dissemination, educational contexts, and marketing. Additionally, the review can analyze audience feedback to enhance the personalized design of AI anchors.

Lastly, the encouragement of interdisciplinary inspiration and collaboration is advocated to foster innovative research topics and methodologies. Literature reviews not only concentrate on communication studies but also encompass research from various disciplines such as psychology, computer science, and ethics, reflecting the interdisciplinary essence of AI anchor personality research. By amalgamating perspectives and methodologies from diverse disciplines, literature reviews can furnish researchers with novel research concepts and techniques, foster interdisciplinary cooperation, and propel the thorough exploration and expansion of AI anchor personality research.

The systematic literature review on the personification of AI within the realm of communication studies yields profound impacts and extensive contributions. It not only enhances theoretical frameworks and empirical research but also provides a comprehensive outlook for technological integration and ethical deliberations, along with valuable guidance for practical applications and interdisciplinary partnerships.

Certainly, AI anchors are evolving toward a collaborative model with human anchors to achieve complementary personified communication. Yang (2023) and Shi (2024) suggest that the development of AI anchors progresses through three stages: mimetic, anthropomorphic, and realistic, each characterized by its unique features and limitations. Research indicates that the optimal strategy for the broadcasting industry is to realize “human-machine symbiosis”, wherein AI anchors leverage their powerful data processing and analytical capabilities, while human anchors utilize

their individuality, creativity, and boundary management skills. Together, they facilitate high-quality communication.

Moreover, AI anchors exhibit personalized characteristics and interactivity in news broadcasts, financial commentary, and entertainment programs, while human anchors play an irreplaceable role in providing emotional connections and personalized content. This collaborative development emphasizes the complementarity between human and AI anchors; human anchors can break through in emotional interaction and personalized expression, while AI anchors offer support in data organization and analysis. This synergistic working model not only enhances the efficiency and quality of news reporting but also provides new avenues for development within the media industry.

6. Conclusion

The conclusion highlights the importance of understanding and responding appropriately to the emergence of AI anchors in the media industry. It emphasizes the need for media practitioners to address the challenges and opportunities presented by this new technological product with competence and integrity. The impact of AI anchors on audience media consumption is discussed, particularly in terms of personified communication. Encouraging multidisciplinary research on AI anchor personification communication, involving fields such as communication and psychology, is deemed essential for gaining a comprehensive understanding of how AI anchors are presented and their influence on media content production and consumption.

The paper categorizes the research findings into two main areas: the inability of AI anchors to replace real anchors in personality-based communication and the trend towards constructing virtual personalities that are more relatable to real individuals. While existing research on the anthro pomorphization of AI anchors has been fragmented, this review aims to provide a comprehensive analysis of the relevant studies in this domain. It identifies key characteristics, developmental trajectories, and research avenues related to personality-based communication of AI anchors.

However, the literature review points out a research gap concerning the audience's perspective on personality-based communication of AI anchors. The lack of empirical studies on whether AI anchors can effectively substitute human anchors and deliver a comparable experience to viewers is highlighted. The paper suggests the need for empirical methods to measure this aspect. Furthermore, it stresses the importance of considering the implications of the personified representation and advancement of AI anchors on media forms and consumption for AI anchor research and development organizations, application entities, and audiences.

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