Media Credibility Communication in the Intelligent Media Era: An Analysis (Postprint)

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Abstract

As artificial intelligence intervenes in the media sector, the traditional media industry is accelerating its transformation, which also poses new challenges to media credibility. This paper primarily explores the concepts of media credibility and authority. It analyzes the crises of credibility erosion in the intelligent media era, which are respectively: first, the lack of data screening and the scientific validity of algorithmic technology affect news authenticity; second, intelligent media fails to cultivate authority and is prone to creating "information cocoons" ; third, the absence of humanistic and emotional qualities prevents resonance; fourth, public opinion guidance leads to algorithmic bias. Corresponding countermeasures are proposed based on the aforementioned crises: first, construct intelligent review platforms to safeguard news authenticity; second, shift emphasis from dissemination effects to content quality; third, produce content and select distribution channels from a human perspective to enhance emotional resonance; finally, improve regulatory mechanisms, seize the dominant position, strengthen and perfect regulatory mechanisms, and cultivate audience media literacy. All media must attach importance to their own credibility, take measures to address risks according to their own media familiarity, only then can intelligent media achieve healthy development in the future.

Full Text

An Analysis of Media Credibility Communication in the Era of Intelligent Media

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Abstract: As artificial intelligence intervenes in the media field, the traditional media industry is accelerating its transformation, posing new challenges to media credibility. This paper explores the nature of media credibility and authority, analyzing the crisis of credibility dissolution in the intelligent media era. The challenges include: first, data screening deficiencies and whether algorithmic technology is scientific affecting news authenticity; second, intelligent media's inability to foster authority, leading to "information cocoons"; third, the lack of humanistic and emotional elements that fail to resonate with audiences; and fourth, public opinion guidance causing algorithmic bias. Corresponding countermeasures are proposed: construct an intelligent review platform to ensure news authenticity; shift focus from dissemination effects to content quality; produce content and select distribution channels from a human perspective to enhance emotional resonance; and improve regulatory mechanisms to maintain dominance while cultivating audience media literacy. All media must prioritize their credibility and adopt measures to address risks based on their characteristics—only then can intelligent media achieve healthy development in the future.

Keywords: intelligent media; media credibility; algorithmic technology; online public opinion; information cocoon

1. Media Credibility and Authority

The term "media credibility" translates the Western academic concept "media credibility," referring to the level of public trust accumulated over time by a media institution through consistently disseminating useful news. Credibility represents the combination of a media' s internal quality and external image, serving as an important benchmark for measuring a media' s authority, influence, and reputation, and acting as a bridge between media and the public. Scholar Zhang Hongzhong argues that media credibility can influence the image of government-affiliated media in the public mind.

Only by understanding the intrinsic elements of media credibility can we maintain and enhance it. Through reviewing relevant literature, most scholars and industry professionals emphasize four characteristics: news authenticity, authority, correct orientation, and emotional resonance. First is news authenticity—false news not only damages the media' s image as a responsible social institution but also creates chain reactions that reduce public trust in the entire media industry. Second is news authority—varying content quality can lead to the erosion of media authority and loss of audience trust. Third is correct news orientation—media that consistently report vulgar news can foster negative public opinion tendencies. Finally, news emotional proximity requires reporting on topics of widespread public concern; otherwise, it can easily lead to "media aphasia."

2. The Crisis of AI on Media Credibility

Every technological revolution transforms information dissemination methods. Paul Levinson' s media evolution theory introduces the concept of "remedial media," suggesting that each new medium compensates for traditional media' s deficiencies while simultaneously creating new crises. Print media excels at abstracting and condensing concepts but demands higher literacy from readers. Broadcasting and television break temporal and spatial constraints, increase dissemination speed, and provide visual effects for non-verbal information, requiring lower literacy from audiences.

For a long time, traditional media maintained considerable authority, but the rise of self-media has changed communication patterns, gradually eroding this authority. In recent years, media convergence has become the dominant trend, with traditional media consolidating their advantages, abandoning disadvantages, and leveraging new media to expand dissemination channels. For example, *Fashion Bazaar* began its transformation after 2010, successively launching digital editions, Fashion Bazaar IN, WeChat mini-programs, and Fashion Bazaar MINIBAZZR to address the erosion of credibility and authority caused by self-media' s emergence.

Currently, artificial intelligence has ushered the media industry into the intelligent media era, characterized by collaboration, interactivity, personalization, and diversification. As intelligent media innovates content production and dissemination processes, it pushes the originally single-level virtual social space into multiple sub-level spaces—festival cultural spaces, current affairs and government spaces, entertainment and celebrity fan spaces—forming more diverse communities. However, intelligent media development also has limitations that threaten media credibility.

2.1 Data Screening Deficiencies and Algorithmic Technology' s Scientific Validity Affect News Authenticity

The world' s first writing robot was created by American Thomson Company in 2006. Today, many mainstream domestic media have adopted intelligent robot writing, such as Tencent' s "Dream Writer" and Xinhua News Agency' s "Kuai Bixiaoxin." These intelligent writing robots primarily rely on cloud computing and natural language processing technology to analyze collected data sources, then process and integrate them to generate compliant manuscripts within seconds—a production speed that traditional journalists and editors cannot match. However, this rapid generation can easily lead to factual inaccuracies in some news content, depending largely on whether the algorithm design is scientific.

Intelligent writing robots heavily depend on algorithms, which determine the quality of content data collection. Data sources primarily consist of existing online data, which varies widely in quality, and writing robots struggle to verify data authenticity. Especially with capital intervention, many self-media outlets spread false or "clickbait"information to attract traffic. When intelligent writing

robots base news manuscripts on false data, they can easily cause "secondary accidents." As media adopt robot writing, online news volume will increase exponentially. Since various media outlets rely on relatively concentrated content sources, any deviation in the authenticity of these sources will lead to exponential propagation of false content.

Whether algorithmic technology is objective also critically affects news authenticity, involving technologies such as data mining and knowledge graphs. Intelligent writing crawls relevant data based on keywords, processes and integrates it based on past content templates, and finally reviews and disseminates it. In this process, whether algorithmic technology is scientific affects the accuracy and rigor of writing robots' deep learning, ultimately impacting news authenticity.

2.2 Intelligent Media Struggles to Foster Authority, Easily Creating "Information Cocoons"

Intelligent media enables traditional media to achieve qualitative improvements in information retrieval, analysis, screening, and integration through big data technology. Writing robots can complete the entire process of collection, editing, and distribution within extremely short timeframes, liberating traditional journalists from cumbersome news production cycles. However, due to still-imperfect algorithms, news generated by intelligent robots mostly remains at the surface level, lacking human depth and professionalism, which affects media authority.

In terms of topic selection, intelligent media only mines hot topics of public interest, neglecting to address social pain points from a macro perspective, which can lead to "information cocoons." Audiences originally following hot topics become even more focused on them, while those not previously concerned may also begin paying attention due to intelligent media' s information dissemination, creating a vicious cycle. Second, to cater to certain audience demands, intelligent writing robots may render content entertaining and vulgar, lowering media tone and affecting authority. Third, relying solely on algorithms makes it difficult to extract socially valuable and positively oriented elements from hot topics to reveal underlying social pain points. Finally, such content lacks depth, encourages "content laundering," and due to intense homogenized competition, many media pursue quantity over quality, producing "pseudo-original" content that reduces original content volume.

Additionally, the gimmick of "pseudo-intelligence" affects media authority. Insufficient capital and R&D capabilities are major challenges for many media, leading them to use "pseudo-intelligence" as a marketing label or select third-party data platforms of questionable qualifications, all of which impact media authority. Developing intelligent media requires deep understanding of the news industry' s actual conditions and strengthening algorithmic technology' s ability to serve content production.

2.3 Lack of Humanistic and Emotional Elements, Failing to Resonate with Audiences

Currently, due to imperfect algorithms and human limitations on machines, artificial intelligence lacks certain emotional elements and struggles to align with users' real preferences. For instance, current financial, sports, and breaking news are generated through algorithms and natural language technology. While intelligent writing' s proceduralization and scaling satisfy news timeliness demands, it lacks humanistic and emotional elements, failing to effectively establish emotional proximity with audiences or produce the news effects media anticipate.

First, instrumental rationality dominates, emphasizing ends over means. Artificial intelligence lacks emotional value, making it difficult to address topics the public truly needs. Intelligent media blindly caters to user-followed hot topics, focusing solely on effects and ends while neglecting social pain points that resonate, failing to effectively fulfill media' s social responsibilities.

Second, the absence of independent emotional consciousness makes resonance difficult. Although artificial intelligence has rapidly developed in China in recent years, it remains in an "elementary stage," merely imitating human behavior and cognition without replicating human thought, reasoning, or hypothesis. While intelligent media can use emotionally charged vocabulary, it cannot deeply contemplate each term, only skimming the surface, making resonance unlikely.

Third, data bias can easily mine false emotions. Algorithms can only perform data mining and personalized recommendations based on users' literal information, creating a "thousand people, thousand Hamlets" effect. Additionally, with the rise of live streaming, Goffman' s "front stage and back stage" boundaries have blurred, but virtual and real spaces still differ, preventing technology from accurately mining users' real conditions and creating false emotional proximity that fails to maintain and enhance media credibility.

2.4 Algorithmic Bias Affects News Orientation Correctness

Currently, academia has not reached consensus on the concept of algorithmic bias. Scholar Lin Aijun defines "algorithmic bias" as the subjective, unfair phenomena in algorithmic strategies caused by technological limitations. The emergence of algorithms has dramatically transformed the entire media industry, helping it adapt to rapidly developing society but also creating potential algorithmic bias that may affect news orientation correctness. Algorithmic bias primarily stems from designers' subjectivity, incomplete simulation databases, human-machine collaboration biases, and algorithmic technology's inherent limitations. For example, Microsoft's 2017 intelligent social chatbot Tay, personified as a 19-year-old girl, could self-improve through user interaction but became a "bad girl" promoting racial prejudice and violence within days due to online racism, forcing Microsoft to shut it down.

3. Strategies for Intelligent Media to Enhance Media Credibility

Credibility is the cornerstone of media survival. Mainstream media, facing high audience expectations, can have their credibility damaged by any minor deviation, so they must prioritize maintaining and enhancing credibility. Self-media, with its massive and competitive content plus capital influx, faces lower audience expectations, so its focus should be on building its own media credibility. The integration of artificial intelligence and information dissemination has reshaped the entire media ecosystem, deepening interactive communication between subjects and objects. Like McLuhan' s "media as extensions of man," AI extends certain human functions, and media must leverage these advantages to break unrealistic imaginings. First, media must consolidate authority and enhance credibility; regulators must strengthen and improve corresponding policies to compensate for limitations.

3.1 Construct Intelligent Review Platforms to Ensure News Authenticity

In an environment where AI intervenes in information dissemination, whether algorithms are scientifically reasonable affects news authenticity. News editing gatekeeping must occur not only in content production and dissemination but also in algorithm design. News editors should communicate more with technical developers about journalistic norms and professionalism to compensate for their limitations in news knowledge and ensure algorithmic scientific validity.

False data can easily lead to "secondary crises,"so news media must quickly build and improve intelligent review platforms. For newly collected data, blockchain technology can trace information sources to ensure every dissemination node is authentic and error-free. For existing information, text analysis technology using Python and Octoparse can rapidly search and verify literature and materials.

3.2 Shift from Emphasizing Dissemination Effects to Content Quality

Online hot topic rankings largely depend on dissemination effectiveness, using metrics like clicks, views, watch time, and completion rates as evaluation indicators. This can lead to malicious data manipulation, undermining a transparent media environment. Therefore, media cannot judge content quality solely by dissemination effects. They must leverage AI advantages to shift mindsets, focusing from dissemination effects to dimensions like content quality and social impact.

3.3 Produce Content and Select Distribution Channels from a Human Perspective to Enhance Emotional Resonance

Due to its instrumental rationality, artificial intelligence lacks emotional value and cannot fully replace humans in media. Human-machine collaboration will be the trend for a long time. To enhance algorithmic technology' s humanization, personalized recommendations must emphasize content quality to better leverage advantages in "collection, editing, writing, reviewing, and distribution" processes. Simultaneously, we must balance human-machine relationships, fully utilizing human subjective initiative and emotional value judgment.

Through algorithm optimization and data increases, AI can also simply simulate human emotions, as seen with Microsoft' s Tay, but requires human intervention to filter negative information during algorithm design. News editors must deeply explore user needs to identify topics or events that resonate with audiences and inject their own emotional components to enhance closeness between media and audiences.

3.4 Maintain Dominance, Strengthen and Improve Regulatory Mechanisms, and Cultivate Audience Media Literacy

As public opinion instruments, mainstream media must actively integrate AI to amplify mainstream public opinion guidance. They must strengthen and improve regulatory mechanisms rather than relying solely on enterprises to voluntarily change and optimize algorithmic technology, which is unrealistic. Moreover, regulating algorithmic logic has high barriers, making implementation difficult for regulators, so strengthening algorithmic mechanisms is a more viable approach.

First, enterprises must disclose algorithmic cores to regulators. Second, they must promptly record and classify collected data for gatekeeping. Since algorithms update in real-time and manual review is time-consuming, AI can be combined for vocabulary sentiment classification to improve review efficiency. Finally, audience media literacy must be cultivated through government legislation strengthening public awareness of media literacy, improving media literacy among media disseminators, enhancing youth media metaphor literacy through school education, and developing children' s media capture and usage literacy through family education.

Intelligent media continues to reshape and transform the news media industry' s ecology, changing news collection, writing, editing, reviewing, and distribution processes to improve content quality and dissemination efficiency. Audiences also gain better reading experiences through personalized recommendations and in-depth content dissemination. However, we must remain vigilant against potential risks caused by intelligent media, such as false data, secondary crises, authority erosion, and false emotional proximity, which undermine media credibility maintenance and enhancement. All media must prioritize their credibility and adopt risk-response measures based on their characteristics. Intelligent

media still requires long-term exploration to balance human-AI relationships, emphasize content quality, and improve regulatory mechanisms for healthy, orderly development.

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Note: Figure translations are in progress. See original paper for figures.