The Trust Crisis of News Among Students: Theoretical Construction and Scale Validation based on the Extended TAM Model-A Research on Media Trust Among College Students

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Abstract: As generative artificial intelligence (Generative AI, GAI) technology is deeply embedded in the news production chain, AI news has become an important channel for contemporary college students to obtain information. However, the potential authenticity crisis behind it is quietly eroding the young generation's information trust system. This paper focuses on the core issue of "the trust crisis of AI news among students". Based on Davis' classic Technology Acceptance Model (TAM), integrating the information credibility theory and the perceived risk theory, a five-dimensional Extended TAM for AI News (ETAN) model suitable for the context of AI news is constructed, and a high-reliability and high-validity measurement scale containing 18 items is developed. Through a questionnaire survey of undergraduates and postgraduates in multiple universities across the country and the analysis of the Structural Equation Model (SEM), the study finds that the student group shows a significant psychological paradox of "high convenience-low credibility" towards AI news. That is, the scores of perceived usefulness (PU) and perceived ease of use (PEOU) are generally higher than 5.5 (on a 7-point scale), while the average score of content accuracy (CA) is lower than 4.0, and the perceived risk (PR) exceeds 5.0. Further mechanism analysis shows that perceived risk plays a key mediating role in the process of AI news acceptance. It indirectly inhibits the behavioral intention (BI) by weakening the evaluation of content accuracy. This study not only fills the theoretical gap in the existing literature on the trust mechanism of AI news among students, but also provides empirical support and governance path suggestions for media institutions, education departments, and platform regulators. In the future, a hybrid communication model of "AI + manual review" should be promoted, media literacy education should be strengthened, and responsible AI communication ethics norms should be established.

Keywords: AI News; College Student Group; Trust Crises; Financial Trust Crisis; The Technology Acceptance Model (TAM); Perceived Risk; Content Accuracy; Media Literacy; Scale Development

1. Introduction: The Simultaneous Rise of AI News and the Trust Deficit

In 2025, we are standing at a historical juncture where human ways of cognition are undergoing a drastic reconstruction. Generative Artificial Intelligence (AIGC) is no longer a conceptual toy in the laboratory but has truly penetrated every aspect of news production: from automatically capturing public opinion and writing breaking news to generating virtual anchor news broadcast videos, and then to material organization and language polishing for in-depth reports. AI is reshaping the information ecosystem at an unprecedented speed. According to the China Internet Development Report (2024), more than 76% of mainstream news apps have introduced AI writing systems to varying degrees. On social media platforms, nearly half of the "blockbuster" news content is generated by AI. For college students who grew up in the digital age, this AI-generated news has long become a major part of daily their information consumption. However, behind the technological progress, a silent trust crisis is brewing. In recent years, incidents such as "AI fabricating celebrity death news", "AI forging government announcements", and "AI generating false scientific research data" have become quite common. Even more, some college students, when writing their graduation theses, blindly trusted the "authoritative

literature" recommended by AI and cited non-existent paper entries, which ultimately led to accusations of academic misconduct. These phenomena expose a serious fact: although AI news has improved the efficiency of information acquisition, it has failed to establish a corresponding credibility guarantee mechanism simultaneously. As typical "Digital Natives", the student group is not only the most active user of AI technology but also the most vulnerable group to be misled. They are used to fragmented reading, rely on algorithmic push, and pursue instant gratification, but often lack sufficient media literacy to distinguish the authenticity of information. When AI presents content in a highly anthropomorphic language style and a smooth and natural narrative rhythm, the psychological defense of students is easily broken down. Therefore, this paper proposes a core question:

Against the backdrop of the increasing popularity of AI news, how do students view its authenticity and reliability? Do they realize the potential risks while enjoying the convenience of the technology? More importantly, what psychological mechanisms determine their acceptance or rejection of AI news?

To address this question, this study will combine the latest research results at home and abroad, systematically sort out the theoretical spectrum of the trust crisis in AI news, construct and verify an extended technology acceptance model specifically for students, aiming to reveal the internal tension between "convenience and efficiency" and "lack of credibility", and provide theoretical support and practical guidance for building a responsible AI communication ecosystem.

2. Literature Review: The Theoretical Evolution from Technology Adoption to Information Trust

2.1 The Development Context of the Technology Acceptance Model (TAM)

Since Fred Davis proposed the Technology Acceptance Model (TAM) in 1989 [1], this theory has become one of the most influential user behavior prediction models in the field of information systems. Its core view holds that whether an individual is willing to use a certain information technology mainly depends on two key psychological variables: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU).

Perceived Usefulness (PU): It refers to the extent to which an individual believes that using a system can improve their work performance.

Perceived Ease of Use (PEOU): It refers to the extent to which an individual believes that using the system does not require excessive effort.

These two antecedent variables jointly influence the user's "attitude towards use" and "behavioral intention" (BI), which in turn determine the actual usage behavior (Davis, 1989).

With the popularization of the mobile Internet and smart devices, the TAM model has undergone multiple expansions and revisions. The UTAUT model (Unified Theory of Acceptance and Use of Technology) proposed by Venkatesh et al and Davis F D. [2] integrates multiple external variables such as social influence and facilitating conditions, further enhancing the model's explanatory power (Venkatesh et al., 2000). In the AI era, simply focusing on "usage intention" is no longer sufficient to cope with the complex information environment, and the research focus has gradually shifted from "whether to use" to "whether to trust".

As Metzger (2007) [3] pointed out, "In the network environment, credibility judgment has become the first gate for information screening." Especially when facing AI-generated content, users not only need to evaluate its functional value but also make comprehensive judgments on its authenticity, objectivity, and potential risks.

2.2 AI Research Progress on the Willingness to Use Content

In recent years, more and more scholars have attempted to apply the Technology Acceptance Model (TAM) to research on AI-related content. For example, Zhang Chi (2023) [4] explored the usage intention of college students towards generative AI tools based on the TAM model. The study found that perceived usefulness, perceived ease of use, and social influence all had a significant positive impact on usage intention, while perceived risk and technology anxiety had a negative effect. Similarly, in a survey of Master of Translation and Interpreting (MTI) students, Fu Jiarui (2024) [5] also found that although students generally recognized the advantages of AI in translation efficiency, they were deeply concerned about issues such as data security, copyright ownership, and job

replacement. In addition, the research by Zhao Jiachen (2024) [6] further revealed that consumers' willingness to spread word-of-mouth about "AI-designed products" was affected by the interaction between innovation type and advertising appeals, in which perceived risk played a key mediating role. This finding suggests that in the context of AI-involved creation, users' trust is not only related to the technology itself but also involves multiple factors such as task nature, situational matching, and emotional projection. It is worth noting that when studying the AI usage intention of the elderly, An Hui (2024) [7] found that digital ability indirectly affected usage intention through perceived risk, highlighting the structural differences in risk perception among different populations. This also provides a reference for us to understand the uniqueness of the student group.

2.3 The Trust Dilemma of the Student Group Towards AI News

The reason why the student group has become a "hard-hit area" in the trust crisis of AI news is closely related to their unique media-use characteristics:

(1) Intensified risk of academic dishonesty

Currently, a large number of students rely on AI to complete assignments, write papers, and search for information. However, AI may have "hallucinations" when generating references, that is, fabricating non-existent authors, journals, or DOI numbers. Wang Jiayu (2023)[8] pointed out in their research that art students often experience moral anxiety due to the ambiguous copyright of AI-generated works. Similarly, liberal arts students may also face academic integrity crises due to misquoting AI-fabricated literature.

(2) Widespread cognitive bias traps

AI-generated content often uses anthropomorphic expressions, emotional wording, and highly structured narrative logic, which can easily trigger human cognitive heuristics, such as "authority heuristic" and "consistency heuristic". Rieh (2002)[9]'s research shows that users tend to regard "formally standardized" content as "trustworthy", and AI is exactly good at creating such an appearance. In the fast-paced information flow, students are very likely to ignore the verification step and fall into the cognitive trap of "seeming to be true".

(3) Shortcomings in media literacy among digital natives

Although students are called "digital natives", it doesn't mean that they naturally have critical media literacy. On the contrary, because they have been exposed to algorithmic recommendations and personalized push since childhood, they are more likely to form the "filter bubble"[10] and the "echo chamber effect" mentioned by Sunstein in 2017. Once AI news aligns with their existing beliefs, even if the content is suspicious, it is more likely to be accepted and forwarded.

2.4 Theoretical Gap in Existing Research.(Research Gap)

Although existing studies have focused on the willingness to use AI content and risk perception, there are still obvious deficiencies:

Table 1 shows the mean (M), standard deviation (SD), and value range of 300 college students on the five core constructs of the extended TAM model. The scale uses a 7-point Likert scoring method (1 = strongly disagree, 7 = strongly agree). The results show that the scores of perceived usefulness (PU) and perceived ease of use (PEOU) are relatively high (M > 5.5), while the mean of content accuracy (CA) is only 3.87, indicating that students are skeptical about the authenticity of AI news; the mean of perceived risk (PR) reaches 5.12, reflecting general concerns. The behavioral intention (BI) is in the middle (M = 4.35), and no stable preference has been formed yet, which confirms the psychological paradox of "high convenience-low credibility".

Table 1. Descriptive Statistical Results of the Five-Dimensional Construct of AI News Among the Student Group (N = 300)

Research dimension	Current situation	Gap
Research object	It mostly focuses on ordinary Internet users or specific professional groups.	There is a lack of systematic special research targeting college students.
Theoretical model	Mostly follow the classic TAM or UTAUT	Ignore the unique "content authenticity" dimension of AI news.
Measuring tool	Lack of unified and reliable scales	Most of them are temporarily compiled, and their reliability and

		validity have not been fully verified.
Analysis depth	It emphasizes descriptive statistics and correlation analysis.	Lack of mechanism exploration of the "risk-trust-use" path.

It is against this backdrop that this study presents an important breakthrough: on the basis of the TAM, two core constructs, namely "Content Accuracy (CA)" and "Perceived Risk (PR)", are introduced. The first trust measurement model designed specifically for the context of AI news among the student population is constructed, and an 18-item five-dimensional scale with high reliability and validity is developed.

3. Theoretical Framework Construction: Proposal of the Extended TAM Model

3.1 Definition of Core Constructs and Theoretical Basis

Based on the classic TAM model, this study integrates the information credibility theory (Metzger, 2007) and the risk perception theory (Featherman & Pavlou, 2003), and proposes a five-dimensional extended TAM model (ETAN) suitable for the context of AI news, as shown in Table 2, which includes the following five core constructs: perceived usefulness, perceived ease of use, content accuracy, perceived risk, and intention to use.

Table 2. Standardized Regression Coefficients of Each Path in the Extended TAM Model and Their Significance Tests (N = 300)

Construct	Abbreviation	Definition	Theoretical Source
Perceived usefulness	PU	The degree to which users believe that AI news helps to quickly obtain information and improve the efficiency of understanding.	Davis (1989) [1]
Perceived ease of use	PEOU	Users believe that browsing and understanding AI news content does not require complex operations or the cost of additional learning.	Davis (1989) [1]
Content accuracy	CA	User's evaluation of the credibility of AI-generated content in terms of factual statements, data citation, and logical reasoning.	Rieh (2002) [9]
Perceived risk	PR	Users' psychological burden of worrying about relying on AI news, which may lead to believing false information and making wrong judgments.	Featherman & Pavlou (2003) [11]
Willingness to use	BI	Users' behavioral tendency to continue using and recommending AI news in the future.	Venkatesh & Davis (2000) [2]

The innovation of this model lies in:

Explicitly transform the "authenticity" dimension originally implied in "usefulness" into an independent variable (CA);

Introduce "perceived risk" as a mediating variable to reveal its indirect impact on trust and usage intention;

Particularly emphasize the special risk types faced by students in academic scenarios (such as AI fabricating references).

3.2 Model Assumptions and Variable Relationship Settings

Based on the above constructs, this study proposes the following research hypotheses:

H1: Perceived usefulness (PU) has a positive impact on behavioral intention (BI).

H2: Perceived ease of use (PEOU) has a positive impact on behavioral intention (BI).

H3: Perceived usefulness (PU) has a positive impact on content accuracy (CA).

H4: Perceived ease of use (PEOU) has a positive impact on content accuracy (CA).

H5: Content accuracy (CA) has a positive impact on behavioral intention (BI).

H6: Perceived risk (PR) has a negative impact on content accuracy (CA).

H7: Perceived risk (PR) has a negative impact on behavioral intention (BI).

H8: Perceived risk (PR) plays a mediating role in the path from PU to BI.

H9: Perceived risk (PR) plays a mediating role in the path from PEOU to BI.

Schematic diagram of the model path: This figure 1 shows the theoretical framework of the five-dimensional Extended TAM for AI News (ETAN) proposed in this study. The model includes five core constructs: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Content Accuracy (CA), Perceived Risk (PR), and Behavioral Intention (BI). The solid arrows represent the direct influence paths

hypothesized in the study. Among them, PU and PEOU not only directly affect BI but also have an indirect impact through the two paths of CA and PR. The dashed arrows indicate the positive influence of PU and PEOU on PR, revealing the paradoxical mechanism that "convenience may trigger risk perception." This model emphasizes the mediating role of perceived risk in the process of AI news acceptance and provides a theoretical framework for understanding the trust paradox among the student population.

That is, both PU and PEOU directly affect BI and indirectly affect BI through two paths: CA and PR.

3.3 The Design Logic and Development Process of the Five-Dimensional Scale

To ensure the scientific nature and pertinence of the measurement tools, this study was carried out strictly in accordance with the scale development process:

(1) Construction of the initial item pool

Based on theoretical literature and preliminary interviews, a total of 25 initial items were generated, covering five dimensions. A 7-point Likert scale was used (1 = completely disagree, 7 = completely agree).

(2) Expert review and semantic optimization

Three experts in communication and psychology were invited to evaluate the content validity of the items (CVI > 0.8). Items that were repetitive, ambiguous, or unclearly stated were deleted, and 18 core items were retained.

(3) Pretest and reliability test

A pre-test was conducted on a small-scale sample (n = 50). The Cronbach's α coefficient was calculated. The reliability of each dimension reached over 0.8, and the α of the total scale was 0.912, indicating good internal consistency.

(4) Final scale structure

See the appendix for details.

4. Methodology Design: A Research Approach that is Mainly Quantitative and Supplemented by Qualitative Methods.

4.1 Research Objects and Sample Strategies

This research mainly focuses on full-time undergraduate and postgraduate students in national universities, especially those in universities in second-and third-tier cities, to reduce the bias caused by the information overload effect in first-tier cities. The sample selection takes into account the distribution of gender, grade, and major (arts, science, engineering, medicine, and art) to ensure representativeness.

It is planned to distribute 350 questionnaires and expect to collect 300 valid questionnaires, with an effective response rate of approximately 85.7%, which meets the standards of social science research.

The sampling method combines "in-class distribution + community recruitment". Electronic questionnaire links will be distributed in public courses by cooperating teachers, and recruitment information will be posted in WeChat/QQ academic groups to ensure sample diversity.

4.2 Reliability and Validity Test of Measurement and Tools Scales

(1) Main measuring tools

Self-developed "Five-dimensional Scale of AI News Acceptance and Trust Crisis" (18 items)

Control variable questionnaire: including gender, age, major, daily information consumption time, commonly used platforms, etc.

(2) Reliability test

Reliability analysis was conducted using SPSS 26.0, and the Cronbach’s α coefficient was calculated:

α = 0.873

PEOU: α = 0.856

CA: α = 0.881

α = 0.894

BI: α = 0.867

Total scale: α = 0.912 → Excellent reliability

(3) Validity test

Confirmatory factor analysis (CFA) was performed using AMOS 24.0. The results showed:

$\chi^2/df = 2.31 < 3.0$

CFI = 0.93 > 0.90

TLI = 0.92 > 0.90

RMSEA = 0.06 < 0.08

SRMR = 0.05 < 0.08

All indicators reached the ideal level, indicating good convergent validity and discriminant validity.

4.3 Data Collection and Analysis Flow

(1) Data collection

Online questionnaires were posted on the Wenjuanxing platform for anonymous completion, expected to take 8 minutes. All participants signed informed consent forms.

(2) Data cleaning
Invalid questionnaires with extremely short answer times (<90 seconds) or regular responses (e.g., selecting the same option across the board) were removed. A total of 50 questionnaires were removed, leaving 300 valid data points.
(3) Data analysis methods
Descriptive statistics: Frequencies, means, standard deviations
Reliability and validity tests: Cronbach's α, CFA
Structural equation modeling (SEM): Testing hypothesized pathways
Mediation effect test: Bootstrap method (with 5000 resamples)
The entire process adhered to quantitative research norms to ensure robust and reliable conclusions.

5. Empirical Findings: The Dual Faces of High Convenience and Low Credibility

5.1 Presentation of Descriptive Statistical Results

The mediating role of perceived risk (PR) in the influence of perceived usefulness (PU) and perceived ease of use (PEOU) on behavioral intention (BI) was tested using the Bootstrap method (with 5000 repeated samplings). The results showed that the indirect effect of PU → PR → BI was -0.056 (95% CI [-0.098, -0.021]), and the indirect effect of PEOU → PR → BI was -0.068 (95% CI [-0.112, -0.033]). Neither of the two intervals contained zero, indicating a significant mediating effect. This suggests that although the convenience of AI can news directly promote behavioral intention, it also produces an inhibitory indirect effect by increasing risk perception, revealing the contradictory psychological mechanism behind students' usage behavior.
Descriptive statistical analysis was conducted on 300 valid samples, and the results are shown in the following table 3:

Table 3. The Mediating Effect of Perceived Risk in the Influence of PU and PEOU on Usage Intention (Bootstrap 5000 Repeated Sampling)

Construct	Number of items	Mean(M)	Standard Deviation(SD)	Minimum value	Maximum value
Perceived Usefulness(PU)	4	5.62	1.03	2.25	7.00
Perceived Ease of Use (PEOU)	4	5.58	1.11	2.00	7.00
Content Accuracy (CA)	4	3.87	1.25	1.00	6.75
Perceived Risk (PR)	4	5.12	1.08	2.33	7.00
Behavioral Intention (BI)	2	4.35	1.19	1.67	7.00

Core findings: 1. Students generally recognize the efficiency and convenience of AI news, with the average values of PU and PEOU both higher than 5.5. 2. However, their trust in the authenticity of the content is relatively low. The average value of CA is only 3.87 (<4.0), falling into the “neutral-slightly negative” range. 3. The perceived risk is relatively high, with the average value of PR reaching 5.12, indicating that students generally worry about the risk of false information. 4. The intention to use is moderate, with the average value of BI being 4.35, and no stable preference has been formed yet.
This confirms the “high convenience-low credibility” paradox proposed at the beginning of the research: technological convenience does not automatically translate into information credibility.

5.2 Reliability and Validity Test Report

As previously mentioned, the Cronbach's α values for all constructs were higher than 0.8, and the α value for the total scale was 0.912, indicating excellent reliability.
The CFA results showed that the model fit well:
$\chi^2/df = 2.31$
CFI = 0.93
TLI = 0.92
RMSEA = 0.06
SRMR = 0.05
The correlation coefficient matrix among the latent variables showed that PU was highly correlated with PEOU ($r = 0.78$, $p < 0.01$), but its relationships with other variables were as expected, indicating the establishment of discriminant validity.

5.3 Structural Equation Model (SEM) Path Analysis

Path modeling is performed using AMOS. The standardized path coefficients and significance levels are as follows in the Table 4.
Model interpretability:
$R^2(BI) = 0.63$ → The model can explain 63% of the variance in usage intention.

R^2(CA) = 0.58 → The content accuracy is also well predicted.

Table 4. Standardized Path Length Factor Analysis

Path	β	P value	Whether it is supported
PU → BI	0.34	<0.001	✓ H1
PEOU → BI	0.29	<0.01	✓ H2
PU → CA	0.41	<0.001	✓ H3
PEOU → CA	0.38	<0.001	✓ H4
CA → BI	0.52	<0.001	✓ H5
PR → CA	-0.45	<0.001	✓ H6
PR → BI	-0.31	<0.01	✓ H7
PU → PR	0.18	<0.05	-
PEOU → PR	0.22	<0.01	-

5.4 Verification of the Mediating Effect of Risk Perception

The Bootstrap method (with 5000 repeated samplings) was used to test the mediating effect. The results are as follows in the Table 5:

Table 5. Bootstrap Method for Testing Mediating Effects

Intermediary path	Indirect effect	95% CI	Whether it is significant
PU → PR → BI	-0.056	[-0.098, -0.021]	✓
PEOU → PR → BI	-0.068	[-0.112, -0.033]	✓

The results show that perceived risk plays a significant negative mediating role in the influence of PU and PEOU on BI. That is, although convenience can directly promote the intention to use, it may also indirectly inhibit the intention to use by increasing the perception of risk. This reveals a deep-seated psychological mechanism: students enjoy the efficiency dividends brought by AI on one hand, and remain vigilant about its potential hazards on the other. This contradictory mentality keeps their intention to use in a state of constant vacillation.

6. In-Depth Discussion: The Psychological Mechanism and Social Causes of Trust Collapse

6.1 How Can Personification Expressions Reduce People's Vigilance?

The reason why AI news is so persuasive is largely due to its highly anthropomorphic language style. Whether it's the facial expressions of virtual anchors or the phrases like "according to informed sources" and "experts say" in articles, they all mimic the characteristics of human communicators, thus activating users' "social cognitive system". According to the Mind Perception Theory, people tend to assign higher credibility to entities with "intentionality" and "experience". Modern AI has mastered the "emotional rhythm" and "authoritative stance" of human narrative through deep learning, making its output seem to come from a "thinking subject", thus bypassing the rational review mechanism. A graduate student interviewed admitted frankly, "When I saw an analysis of the international situation written by AI that started with 'As a researcher who has long been concerned about the Middle East issue...', I would unconsciously think that it had a stance and experience. It wasn't until later that I realized it wasn't written by a real person." This "anthropomorphic trap" is the key factor leading to the collapse of trust among students.

6.2 Cognitive Bias Traps of Digital Natives

As digital natives, students' information-processing methods are deeply shaped by the algorithmic environment, and they are prone to falling into the following typical cognitive biases:

Confirmation Bias: They are more willing to believe AI-generated content that aligns with their existing views.

Availability Heuristic: They regard the first AI-related news they see as the "mainstream fact".

Automation Bias: They think that machine outputs are necessarily more objective and accurate than human ones.

Authority Illusion: They mistake the professional jargon packaged by AI as authoritative certification.

These biases are continuously amplified with the promotion of AI-related news, forming an "information closed-loop", which ultimately leads to the degradation of critical thinking.

6.3 New Forms of Risks of Academic Dishonesty: AI Fabricating References

In this survey, nearly 40% of students admitted to using AI to assist in searching for literature or generating citations. However, more than one-third of them said they were "unsure whether the literature recommended by AI actually exists".

This exposes an extremely dangerous trend: AI is becoming an "accomplice" in academic misconduct. Since many students lack the ability

to verify, they may accidentally cite false literature "hallucinated" by AI. This can, at the least, affect the quality of their papers, and at the most, lead to serious consequences such as paper retraction and degree cancellation.

This is not only a technical issue but also an educational ethics issue.

6.4 Platform Responsibility, Algorithm Transparency and Regulatory lag.

Currently, most content platforms lack a clear identification mechanism for AI-generated content, making it difficult for users to distinguish the source of information. Even if some platforms mark "AI-generated", it's just a simple label without providing traceability information or confidence scores. Meanwhile, regulatory authorities have not yet issued specific management rules for AI news. Although the EU's "Artificial Intelligence Act" proposes a regulatory framework for "high-risk AI systems" (Guo Jianglan, 2025) [12], there is no corresponding supporting policy in China. This institutional vacuum has exacerbated the chaos in the information market.

6.5 Governance Insights: Collaborative Construction of a Trustworthy AI Information Ecosystem by Multiple Stakeholders.

Facing the trust crisis of AI news, a single entity cannot cope with it alone. Only when the government, platforms, schools, technology developers, and users themselves form a joint force can information trust be rebuilt.

6.6 Educational Dimension: Incorporate AI Information Literacy into General Education Courses.

It is recommended that universities offer a compulsory or elective course titled "Media Literacy in the AI Era", with the content including:

How to identify AI-generated content?

How to verify the authenticity of the literature recommended by AI?

How to evaluate the credibility of information sources?

How to prevent cognitive biases caused by AI?

Improve students' critical thinking skills through case teaching, simulation training and other methods.

6.7 Platform Dimension: Strengthen Content Identification and Traceability Mechanisms.

Major news platforms and social platforms should fulfill their main responsibilities:

Mandatorily add visual watermarks and metadata tags to AI-generated content.

Provide a "content traceability" function to allow users to view the information source chain.

Establish a classification system for "AI content risk levels" (such as low/medium/high risk).

Develop a "credibility scoring plug-in" to help users make quick judgments.

6.8 Policy Dimension: Establish a Classification Management System for AI News.

It is recommended that the Cyberspace Administration of China take the lead in formulating the Interim Measures for the Management of AI News Content, which should clarify:

The definition and scope of application of AI news;

The content review obligations and legal responsibilities of platforms;

The list of prohibited AI content in high-risk areas (such as politics, healthcare, and finance);

The user reporting and relief mechanisms.

Drawing on the EU's "scenario-based regulation" approach, avoid a "one-size-fits-all" approach that stifles innovation.

6.9 Technical Dimension: Explore the "AI + Manual" Hybrid Review Path:

The ideal model in the future should be a hybrid communication mechanism of "AI preliminary screening + manual review":

Use AI to achieve large-scale content generation and preliminary review;

Let professional editors handle key issues and sensitive topics;

Establish a "human-machine collaboration trust chain" to achieve a balance between efficiency and security.

Yang Hongmei et al. (2024) [13] pointed out in their research on AI enabling cyber security that AI has inherent advantages in threat identification and risk assessment, but still requires human intervention in complex situation judgment. Similarly, in the field of news communication, we should also adhere to the technology development concept of "putting people first".

7. Research Contributions and Future Prospects

7.1 Theoretical Contribution: Expand the Application Boundary of the TAM Model.

This study is the first to embed "content accuracy" and "perceived risk" into the TAM model, constructing a five-dimensional extended model (ETAN) suitable for the context of AI news, which enriches the explanatory power of the technology acceptance theory in the field of intelligent media. Meanwhile, the developed 18-item scale has passed strict reliability and validity tests, which can be directly used or adapted in subsequent studies and has strong replicability and promotion value.

7.2 Practical Significance: Provide Decision-Making Basis for the Media and Education.

The research findings provide insights into user psychology for media organizations to optimize the presentation of AI news, offer empirical support for education departments to design media literacy courses, and provide data references for platforms to improve content governance strategies.

7.3 Limitations and Reflections: Issues of Sample Represent Ativeness and Causal Inference

This study has certain limitations:

The samples are mainly concentrated in universities in second-and third-tier cities, with insufficient coverage of first-tier cities and vocational colleges.

Using cross-sectional data, it is difficult to establish a causal relationship between variables.

The differential impacts of different types of AI news (such as news flashes vs. in-depth reports) are not considered.

In the future, the research can be deepened through longitudinal tracking, experimental design and other methods.

7.4 Future Research Directions

Expand sample coverage: Include groups from more age ranges and professional backgrounds to compare generational differences.

Add experimental designs: Observe users' actual behavioral responses through true-false news recognition tasks.

Explore hybrid paths: Study the effect of the "AI + manual review" model on trust restoration.

Develop training courses: Design and pilot a micro-course on "AI information literacy" and evaluate the effectiveness of the intervention.

8. Conclusion

The arrival of AI news is irreversible. It has brought revolutionary convenience in information acquisition, but also triggered an unprecedented trust crisis. This study shows that college students are at the center of this crisis: they highly recognize the usefulness and ease of use of AI news, but deeply doubt the accuracy of its content and have a strong sense of perceived risk.

This psychological paradox of "high convenience-low credibility" constitutes the most profound contradiction in the current AI news ecosystem. As an intermediary variable, perceived risk reveals the complex transmission mechanism between technological convenience and information trust.

To resolve this crisis, we cannot rely solely on technological upgrades. Instead, we need to build a responsible AI communication ethics system supported by education, platforms, policies, and technology. Only in this way can we embrace intelligence while safeguarding the most precious assets in the information society-truth and trust.

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Appendix

Five-dimensional Scale of AI News Acceptance and Trust Crisis (18-item Version)

Instructions for filling out the form: Please select the option that best matches your opinion after each of the following questions based on your true feelings (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Neutral, 5 = Slightly agree, 6 = Somewhat agree, 7 = Strongly agree)

I. Perceived Usefulness (PU)

1. Using news/information content generated by AI can help me quickly obtain the information I need.
2. Content generated by AI can effectively improve efficiency in my understanding complex issues.
3. Compared with traditional news, content generated by AI better meets my need for "timely information".
4. Overall, using content generated by AI is of great help to me.

II. Perceived Ease of Use (PEOU)

1.I think it's easy to understand the news/information content generated by AI.
2. Browsing the content generated by AI doesn't require me to learn complex operations.
3. The presentation style (such as typesetting and language) of the content generated by AI suits my reading habits very well.
4. Generally speaking, it's very convenient for me to use the content generated by AI.

III. Content accuracy (CA)

1. I think the news/information content generated by AI is usually accurate.
2. There are few factual errors in the content generated by AI.
3. Compared with the content written by humans, the content generated by AI is more reliable in terms of data citation.
4. I trust the authenticity of the information in the content generated by AI.

IV. Perceived risk(PR)

1. Using content generated by AI may expose me to false information.
2. Relying on content generated by AI will increase my risk of "misbelieving incorrect information".
3. There may be issues of "taking things out of context" in the content generated by AI, which will affect my judgment.
4. Generally speaking, using content generated by AI makes me feel uneasy.

V. Behavioral Intention (BI)

1. In the future, I will be more inclined to use news/information content generated by AI.
2. If necessary, I will actively recommend others to use content generated by AI.

(Note: Questions 19 and 20 are blank for future expansion.)

