Postprint: A Study of Unverified Information Sharing Behavior on Social Media Among the General Public in Taiwan, China

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Abstract

The phenomenon of citizens sharing unverified information on social media can, to a certain extent, reflect the level of information literacy education in a region. This study aims to investigate the attitudes and behaviors of the general public in Taiwan, China toward unverified information on social media, and to explore corresponding response strategies. Data were collected through paper-based and online questionnaires, with the Internet and New Taipei City Library serving as research venues, and were analyzed using descriptive statistics, factor analysis, one-way ANOVA, and independent samples t-test. Results show that 45.2% of respondents share unverified information on social media; citizens in Taiwan primarily consider information usefulness, importance, and value when sharing unverified information on social media; gender, age, education level, and occupational field exhibit certain correlations with citizens' motivations for sharing unverified information; and different social media platforms may not necessarily influence sharing motivations.

Full Text

Preamble

A Study on the Behavior of Taiwanese Residents Sharing Unverified Information on Social Media

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Abstract The phenomenon of people sharing unverified information on social media can, to a certain extent, reflect the level of information literacy education in a region. This study explores the attitudes and behaviors of Taiwanese residents when encountering unverified information on social media and examines corresponding coping strategies. Data were collected through paper-based and online questionnaires, with the Internet and the New Taipei City Library serving as research sites. Descriptive statistics, factor analysis, one-way ANOVA, and independent samples t-tests were conducted on the collected data. The results show that a significant percentage of respondents share unverified information on social media. Taiwanese residents primarily consider the usefulness, importance, and value of information when deciding to share unverified content. Correlations exist between sharing motivations and demographic variables such as gender, age, education level, and professional field, whereas different social media platforms do not necessarily influence sharing motivations.

[**Keywords**] Unverified information; Social media; Information sharing; Information literacy

The 21st century is an era of information explosion. With the development of Internet technology and the proliferation of smartphones, social media has become saturated with various types of information. In this context, possessing sound information literacy capabilities has become increasingly important. However, the vast amount of redundant and complex information also causes anxiety. Information literacy is the ability to know how to learn—it requires users not only to understand their own information needs but also to know how to search for, evaluate, and utilize information. When citizens possess information literacy capabilities, they can effectively judge the correctness of information and appropriately influence others, thereby reducing the spread of misinformation.

Social media has transformed the way people disseminate information. More and more individuals use platforms such as YouTube, Meta, Twitter, Instagram, Plurk, Xiaohongshu, Douyin, and Bilibili to share information. Among these, student groups under 25 years old are the most active users, viewing social media as important platforms for interpersonal communication and interaction. Regarding information-sharing behavior, research indicates that many users never verify the accuracy of information sources before sharing. Fields such as political affairs have become hotspots for unverified information. Studies show that current cross-strait exchanges are influenced by various factors and constraints, and Taiwanese residents' perceptions of mainland China exhibit certain biases. These biases are not only shaped by ideology but are also largely related to information disseminated through social media in daily life.

Based on this research background and motivation, this study attempts to explore the information literacy capabilities of Taiwanese residents by investigating their behavior of sharing unverified information on social media. The research employs both paper-based and online questionnaires to collect data, examining the demographic characteristics, sharing patterns, and motivations of groups that share unverified information on social media. The study further conducts

correlation tests between variables such as gender, age, educational background, professional field, and social media usage with the extent and motivation of sharing unverified information. Finally, corresponding improvement measures are proposed based on the sharing behavior preferences of different groups, aiming to leverage these preferences for positive information dissemination and provide theoretical support for information literacy education across different demographics.

1. Related Research

Research on unverified information has gained momentum alongside the rise of social media and the emergence of health informatics. Academic consensus on terminology has yet to be unified, with concepts primarily including misinformation, disinformation/fake information, and rumors. Unverified information often deviates from its original form due to cognitive or social factors and is subsequently disseminated unintentionally. Unlike disinformation, which involves deliberate fabrication or distortion to deceive, the key distinction lies in the unintentional nature of its spread.

Existing research has explored several main themes: conceptual definitions of unverified information, verification behaviors, and intervention policies and governance mechanisms. Studies have found that users' motivations for sharing include self-expression, unintentional or intentional purposes, and that information characteristics such as emotional language can significantly reduce perceived credibility of false information. Conversational interventions combining fact-checking have proven effective. In terms of information governance, scholars advocate for a multi-pronged approach involving user education, policy regulation, and technological innovation to enhance information immunity and achieve collaborative governance.

The primary theoretical framework for information sharing on social media is the Uses and Gratifications theory. Research indicates that motivations for sharing include entertainment, understanding others' perspectives, and maintaining social connections. Demographic variables such as gender and education level influence sharing behaviors—for instance, female users demonstrate higher engagement on social media, while college students and graduate students exhibit different reasons for sharing misinformation. The gap between users' awareness of verification needs and their actual verification behaviors remains substantial, with most users lacking the time or energy to verify information.

Policy research has systematically revealed multidimensional factors affecting credibility judgments of distorted health information, providing important references for governance and policy formulation. Logical inoculation education has shown promise in helping users identify misinformation preemptively. The European Union's transparent and diversified governance model for online misinformation offers valuable lessons. Generative artificial intelligence demonstrates significant potential in identifying distorted information, with detection tech-

nologies evolving toward multimodal fusion, large model-driven approaches, and real-time interventions.

2. Research Methods

This study utilized the Internet and the New Taipei City Library as research sites, collecting data through paper-based and online questionnaires to capture authentic scenarios of Taiwanese residents encountering unverified information. The questionnaire design consisted of four parts:

Part 1 presented three case examples of unverified information appearing on social media to ensure respondents understood the concept and definition.

Part 2 collected demographic information including gender, age, education level, and occupation for subsequent analysis.

Part 3 examined social media usage experience, including frequency of use and platforms commonly used.

Part 4 investigated reasons for sharing unverified information, measured using a 5-point Likert scale.

The questionnaire design was primarily based on existing literature, with items added or modified to fit this study's context. For example, in Part 4, an item was added: "To obtain free prizes from merchants." An open-ended question was also included for respondents to express opinions freely, serving as a reference for future research.

Paper questionnaires were distributed to library patrons at the New Taipei City Library using convenience sampling. Library staff assisted in distribution through bulletin board announcements. Online questionnaires were created using Typeform and disseminated anonymously for self-administration. The survey period ran from August 31, 2023, to February 2024.

A total of 500 questionnaires were distributed, yielding 500 valid responses after excluding invalid data (280 paper-based and 220 online). Data analysis employed SPSS software for descriptive statistics, factor analysis, independent samples t-tests, and one-way ANOVA.

Respondent Characteristics: The sample comprised 56.7% females and 43.3% males. The largest age group was 23-30 years (31.3%), followed by 19-22 years (28.3%). In terms of education, undergraduates represented the majority (58.3%), with high school or below at 13.3% and graduate students at 28.3%. Occupationally, students were most prevalent (48.3%), followed by service industry workers (21.5%) and military personnel (8.3%). Regarding social media experience, the average usage frequency for Line and Meta was 4.40 and 4.58 respectively, indicating daily use multiple times, while YouTube averaged 3.49 (weekly use). Other platforms fell below the average, being used only weekly or occasionally.

3. Research Results

3.1 Descriptive Statistics

Frequency of Sharing Unverified Information: As shown in Figure 1, the distribution of sharing frequency reveals that the majority of respondents often or sometimes see friends sharing unverified information. Regarding forwarding such content, most respondents reported never forwarding, with occasional forwarding being the second most common response.

Reasons for Sharing: Figure 2 displays the specific frequency for each sharing behavior. The top-ranked reasons (R1-R30) by mean score were: "This information appears useful" (3.37), "This information provides understanding of specific situations" (3.35), "This information appears important" (3.28), and "This information appears interesting" (3.28). These results indicate that respondents primarily consider information usefulness, importance, and value when sharing unverified content. Conversely, the lowest-ranked reasons included "I want to be the first to share" (1.87), "Sharing is a cultural norm" (2.04), and "Sharing makes me look good to others" (2.13), suggesting respondents do not view sharing as a cultural practice, self-worth validation, or relaxation method.

Correlation analysis revealed a significant positive high correlation ($r = 0.651$, $p < 0.01$) between "forwarding friends' unverified information" and "future intention to continue forwarding," indicating consistent sharing behavior. A moderate correlation ($r = 0.117$, $p < 0.05$) was found between "seeing friends share unverified information" and "forwarding behavior," suggesting social influence effects.

3.2 Factor Analysis of Sharing Motivations

To categorize reasons for sharing unverified information, factor analysis was conducted on the 30 questionnaire items. The Kaiser-Meyer-Olkin (KMO) measure was 0.939, and Bartlett's test of sphericity was significant ($^2 = 575.617$, $p < 0.001$), indicating excellent suitability for factor analysis. Principal component analysis with varimax rotation extracted four factors with eigenvalues greater than 1, explaining 62.35% of total variance.

The four factors were labeled as: - **F1: Interpersonal Interaction** (Cronbach's $\alpha = 0.951$) - **F2: Enjoyment of Sharing** (Cronbach's $\alpha = 0.914$) - **F3: Knowledge Building** (Cronbach's $\alpha = 0.901$) - **F4: Leisure and Recreation** (Cronbach's $\alpha = 0.887$)

All factors demonstrated high reliability ($\alpha > 0.8$). The rotated component matrix showed clear factor loadings, with items such as "Sharing allows me to interact with others" and "Sharing helps strengthen interpersonal relationships" loading on F1, while "Sharing is a good way to relax" and "Sharing helps pass time" loaded on F4.

3.3 Demographic Differences in Sharing Motivations

Gender Differences: Welch's test revealed significant differences between genders on all four factors (F1: p = 0.001; F2: p = 0.037; F3: p = 0.000; F4: p = 0.000). Males scored higher than females on all factors, particularly on F2 (enjoyment) and F4 (leisure), indicating males are more likely to view sharing unverified information as enjoyable and recreational.

Age Differences: One-way ANOVA showed significant age group differences on F2 (enjoyment), F3 (knowledge building), and F4 (leisure). Post-hoc Games-Howell tests revealed that the 19-22 age group had significantly higher mean scores on F4 (leisure) compared to other groups, while the 31-40 age group showed higher scores on F3 (knowledge building). The 23-30 age group demonstrated lower scores on F2 (enjoyment) compared to the 19-22 and 31-40 groups. These findings suggest that younger respondents view sharing as leisure activity, while older respondents see it as knowledge building.

Educational Differences: ANOVA indicated significant differences across education levels on F3 (knowledge building, p = 0.024) and F4 (leisure, p = 0.008). Scheffe post-hoc tests showed that graduate students had significantly higher scores on F3 than high school-educated respondents, suggesting higher education correlates with viewing sharing as knowledge building.

Occupational Differences: Analysis of five occupational categories revealed significant differences on F2 (enjoyment), F3 (knowledge building), and F4 (leisure). Post-hoc comparisons showed that students had significantly lower scores on F2 and F4 compared to service industry workers and retirees, while military personnel and teachers scored higher on F3 than students. Retirees particularly viewed sharing as enjoyable and knowledge-building.

3.4 Social Media Platform Differences

Independent samples t-tests comparing users versus non-users of specific platforms showed: - **Line and Meta**: No significant differences across all four factors - **YouTube**: Users scored significantly higher than non-users on F3 (knowledge building, p = 0.041) and F4 (leisure, p = 0.003) - **Forwarding Behavior**: Those who forward friends' unverified information scored significantly higher on all factors than non-forwarders, particularly on F1 (interpersonal interaction) and F3 (knowledge building) - **Future Sharing Intention**: Those intending to continue sharing scored significantly higher on all factors than those who do not

4. Conclusion and Reflection

This study investigated Taiwanese residents' behavior of sharing unverified information on social media. The findings can, to some extent, estimate the overall situation in Taiwan. The primary motivations for sharing unverified information are the perceived usefulness, importance, and value of the information itself.

Respondents less frequently endorsed sharing as a cultural practice, self-worth validation, or relaxation method, but acknowledged its role in strengthening interpersonal interactions.

Demographic correlations were evident: males more strongly endorsed enjoyment and leisure motivations; the 19-22 age group viewed sharing as leisure activity; higher education correlated with knowledge-building motivations; and occupational differences showed students viewing sharing as leisure while teachers and military personnel saw it as knowledge building. Different social media platforms did not uniformly affect sharing motivations, though YouTube users showed stronger knowledge-building and leisure orientations.

Implications for Information Literacy Education: Targeted strategies should be developed for different demographic groups. For the 19-22 age group, which is heavily influenced by peers and views sharing as leisure, education should focus on critical evaluation skills. For lower-education populations, foundational information literacy programs are needed. The consistency between current forwarding behavior and future intention suggests that interventions targeting current behaviors may have lasting effects.

Limitations and Future Research: This study focused on major platforms (Line, Meta, YouTube) but did not include emerging platforms like TikTok, Bilibili, or Taiwan-specific forums such as PTT, which have gained significant user bases. Future research should expand platform coverage and explore regional differences. Additionally, the potential multicollinearity between age and occupation variables warrants further investigation. The study's cross-sectional design limits causal inferences; longitudinal studies could better track behavioral changes over time.

References

[1] Association of College & Research Libraries. Framework for Information Literacy for Higher Education[EB/OL]. [2025-01-31]. https://www.ala.org/sites/default/files/acrl/content/issues/

[2] Chen X, Sin J, Theng Y. Why do students share misinformation on social media: motivation, gender, and study-level differences[J]. Journal of Academic Librarianship, 2015(5): 583-592.

[3] Lin P, Chen L, Yuan Y. Discover misinformation in broad- casting: On-Line social networks[J]. Journal of Information Science and Engineering, 2015(3): 763-785.

[4] Kaplan M, Haenlein M. Users of the world, unite! The challenges and opportunities of social media[J]. Business Horizons, 2010(1): 59-68.

[5] Zhao S. Conceptual exploration of user research methods and methodology[J]. Journal of Huaqiao University, 2014(2): 207-227.

[6] Zhao X. A study on Facebook usage behavior among college students[J].

Taiwan University Journal of Humanities and Social Sciences, 2012, 50: 127-146.

[7] Chen L. Exploring information sharing behavior of social media users[J]. Journal of Agricultural Library and Information Science, 2014(1): 23-51.

[8] Chen X, Sin J, Theng Y. Misinformation? Motivations and individual differences in misinformation sharing on social media[J]. Proceedings of the American Society for Information Science and Technology, 2011(9): 12-15, 40-41.

[9] Kim S, Sin J, Yoo-Lee E. Undergraduates' social media information sources[J]. College & Research Libraries, 2012(2): 331-339.

[10] Song S, et al. Factors influencing credibility judgment of distorted health information in Internet environments[J]. Chinese Journal of Library and Information Science, 2019(4): 28-36.

[11] Flanagin A, Metzger M. Perceived credibility of web-based information[J]. Media Psychology, 2007(2): 319-342.

[12] Metzger M. Making sense of credibility on the web: Models for evaluating online information and recommendations for future research[J]. Journal of the American Society for Information Science and Technology, 2007(13): 2078-2091.

[13] Budak C, Agrawal D, Abbadi A. Limiting the spread of misinformation in social networks[C]//Proceedings of the International Conference on World Wide Web. New York: Association for Computing Machinery, 2011: 665-674.

[14] Chen X, Sin J, Theng Y. Why do social media users share misinformation?[C]//Proceedings of the ACM/IEEE-CS Joint Conference on Digital Libraries. New York: Association for Computing Machinery, 2015: 111-114.

[15] Guerin B, Miyazaki Y. Analyzing rumors, gossip, and urban legends through their conversational properties[J]. Psychological Record, 2006(1): 23-33.

[16] Mintz A. News sharing on social media: The effect of gratifications and prior experience[J]. Computers in Human Behavior, 2014(4): 442-457.

[17] Lin Y, et al. A survey on critical thinking intentions and Facebook's impact on information verification behavior among college students[J]. Taiwan University Journal of Humanities and Social Sciences, 2013(1): 17-36.

[18] Lee L. News sharing on social media: The effect of gratifications and prior experience[J]. Computers in Human Behavior, 2014(4): 442-457.

[19] Yang Y, et al. The impact of interactive inoculation on social media users' perception of false information[J]. Digital Library Forum, 2024(11): 43-51.

[20] Song S, et al. Research on factors influencing emotional responses in public responsibility attribution processes under misinformation governance contexts[J]. Information Studies: Theory & Application, 2024(9): 28-36.

[21] Zhang L. From policy to institution: EU's regulatory path for online misinformation governance[J]. Intelligence Theory and Practice, 2024(9): 1-11.

[22] Fu S, et al. Research on the role of generative AI in identifying distorted health information and user experience[J/OL]. Library and Information Knowledge, 1-12[2025-02-11]. http://kns.cnki.net/kcms/detail/42.1085.G2.20250205.1741.002.html.

[23] Sun C. A comprehensive review of false information detection frameworks based on large language models[J/OL]. Computer Science and Exploration, 1-38[2025-02-21]. http://kns.cnki.net/kcms/detail/11.5602.tp.20250219.0930.002.html.

[24] Fu S, et al. Research on influencing factors of short-video false health information dissemination from a configuration perspective[J]. Library and Information Science Journal, 2024(12): 103-116.

[25] Zhao Z. A systematic review of factors influencing false information sharing on social media[J]. Journal of Agricultural Library and Information Science, 2024(12): 45-63.

[26] Chen J, Hao J, Xie B. A study on Taiwanese residents' behavior of sharing unverified information on social media[J]. University Library Work, 2025/2: 1-12.

Figures

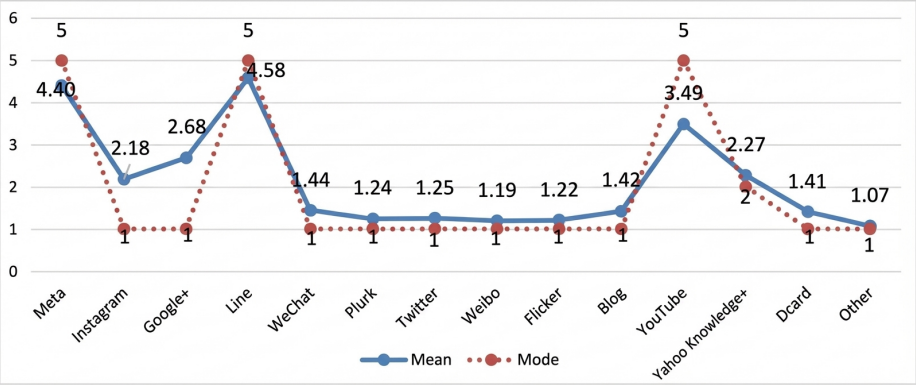

Figure 1: Figure 1

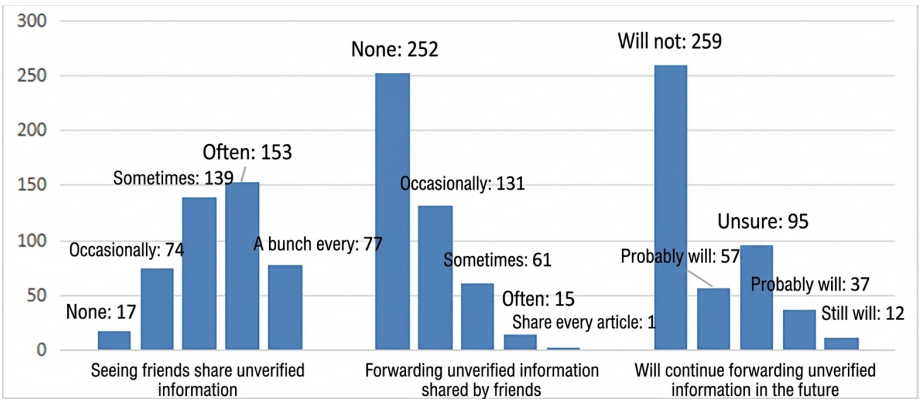

Figure 2: Figure 2

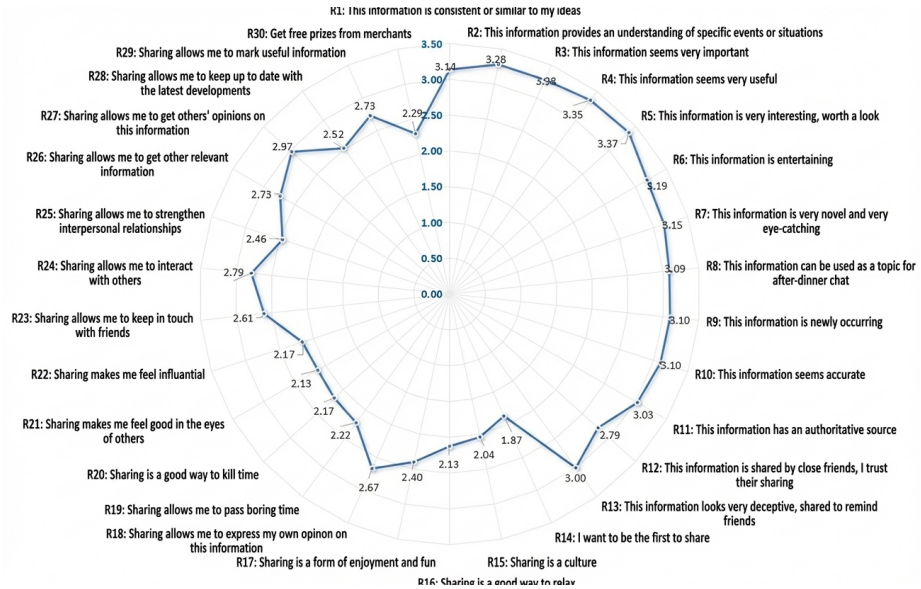

Figure 3: Figure 3

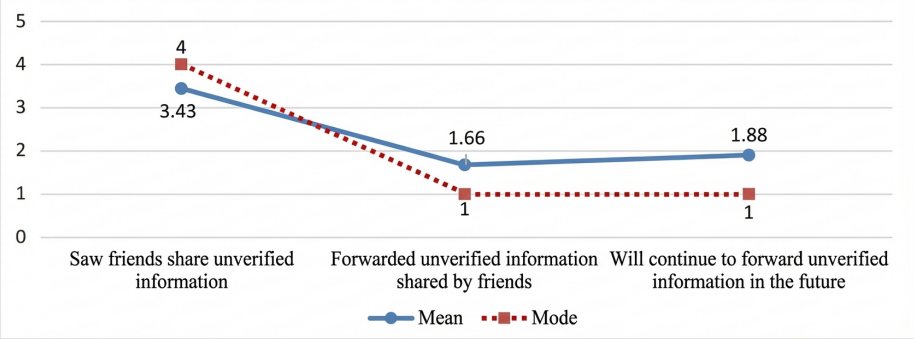

Figure 4: Figure 4