A Quantitative Analysis: Students Perception on Social Media among BSICT Students

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ABSTRACT

Online privacy perception among students on social media raises concerns about personal information protection, misuse, and potential misuse, including inadvertent disclosure leading to privacy breaches and identity theft. The study examined the influence of online privacy perceptions on social media usage among 150 Information and Communications Technology students through an online survey. The study revealed that students are highly aware and responsible about data privacy and security, demonstrating proactive behavior and trust in social media platforms' ability to effectively manage privacy risks.

Key words : Identity theft, potential misuse, social media, students privacy.

1. INTRODUCTION

Social media, a virtual platform for sharing thoughts, information, and content through digital networks, has gained prominence globally. It facilitates the swift sharing of personal data, documents, videos, and images via web-based applications on various devices [25]. Social media has evolved as a significant means of communication around the world, and its widespread use has altered how people communicate and engage [30]. In today's digitally interconnected world, where social media platforms serve as virtual gathering spaces, the question of online privacy has become increasingly pertinent. Online privacy perception encompasses individuals' awareness, concerns, and trust regarding the safeguarding of their personal information in the digital realm [1].

There is significance to trust and awareness in mitigating privacy and security concerns on social media platforms [17]. Though there are [11] pertinent questions about students' perceptions of privacy invasion versus genuine interest in online interactions, which directly relates to their awareness of data privacy issues. Students may grapple with the implications of sharing personal information on social media platforms, especially considering the blurred boundaries between private and public spheres online. This study prompts reflection on how students perceive the risks associated with data sharing and privacy breaches in their online interactions. Students have challenges when using social media platforms to look up academic material; among the most important challenges are possible data privacy issues [22]. Students may hesitate to engage with academic content online due to data privacy and authenticity concerns, necessitating educators and platform developers to address these barriers.

The study aims to understand online privacy perceptions and behaviors of Bachelor of Science in Information and Communications Technology (BSICT) students, providing insights for educational institutions, policymakers, and industry stakeholders. It aims to inform policies and interventions to enhance online privacy awareness and protect BSICT students. The findings will promote a privacy-conscious digital culture and privacy education integration, contributing to developing strategies for digital privacy literacy and responsible online behavior.

1.1 Objectives of the Study

This study aims to conduct "A Quantitative Analysis of Surigao del Norte State University's BSICT Students' Perceptions of Online Privacy on Social Media" in Surigao Del Norte State University.

Specifically aims to:
1. Determine the profile of the respondents in terms of:
    a) Gender
    b) course; and
    c) year level
2. Determine the relationship in regards to Online Privacy Engagement of BSICT Students and their Perceptions of Online Privacy.
3. Evaluate the perception of students' attitudes regarding data privacy concern, data security perception, and risk awareness.
4. Assess the perception of student's privacy practices towards data privacy concern, data security perception, and risk awareness.

5. Examine the perception of student's trust in social media platforms towards data privacy concern, data security perception, and risk awareness.

1.2 Conceptual Framework

Figure 1 shows the conceptual framework of the study, the study examines students' attitudes, privacy practices, and trust in social media platforms, focusing on data privacy concerns, data security perceptions, and risk awareness. The dependent variable is the desired outcomes, while the independent variable is the impact of online privacy perception on social media behavior among BSICT students. The study aims to understand the relationship between these factors.
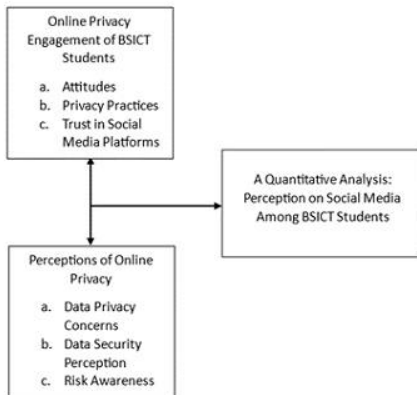

Figure 1: Conceptual Framework of the Study

2. REVIEW OF RELATED LITERATURE

Data Privacy Concerns

Several academic articles provide complementary insights into the multifaceted landscape of data privacy concerns within social media contexts. Users may have confidence issues and various privacy violations as a result of organizations abusing the information they have been given [8]. When there are infractions, a social media company or brand apologizes on the platform, easing users' fears and encouraging them to stay active on the platform. Investigate the delicate balance between privacy apprehensions and the perceived benefits of engaging with social media-enabled applications, revealing how individuals weigh these factors in their decision-making process [23]. The idea of privacy is profoundly altered by social media platforms, which become arenas for visibility and public presentation of user identities [21]. Users trust in social media platforms significantly influences their levels of privacy apprehension [7].

Moreover, study on student attitudes and awareness regarding personal privacy and cybersecurity on social media further supports these findings by highlighting a general lack of awareness among users regarding the importance of safeguarding their privacy online [24]. Furthermore, exploration of the unintended consequences of open data policies echoes the importance of understanding and

addressing users' privacy concerns, as their research suggests that such policies may inadvertently heighten privacy apprehensions among participants, potentially impacting the validity of research outcomes [4].

Finally, the awareness of data privacy among students at Qassim University underscores the need for educational interventions to enhance users' understanding of privacy issues on social networks, aligning with the broader theme of the importance of privacy education and awareness highlighted across the other studies [1]. Together, these studies provide a comprehensive understanding of the various dimensions of data privacy concerns in the digital age and emphasize the importance of addressing these concerns through educational, policy, and technological interventions.

Data Security Perceptions

The attitudes, awareness, and perceptions of students regarding personal privacy and cybersecurity within the realm of social media usage [27]. The findings demonstrate that students' attitudes towards personal privacy and cybersecurity on social media are heavily influenced by their individual awareness and perception. This analysis is similar to the more extensive research that was carried out to find out how users with various attributes—technical proficiency, privacy consciousness, and financial means, for example—participate in online privacy and security practices. It demonstrates that people who possess greater technological expertise, understanding of privacy issues, and financial means typically take proactive steps to ensure online privacy and security [28]. The finding was supported by [11] research, which emphasizes the nuanced nature of privacy perceptions in online interactions. It suggests that individuals' interpretations of privacy invasion versus genuine interest can influence their attitudes towards data security on social media platforms, regardless of their technical expertise or financial resources.

In the context of Indonesia, [31] investigated students' understanding of privacy settings, their behaviors related to sharing personal information online, and their knowledge of potential risks associated with data security on social media. They found varying levels of awareness among higher education students regarding personal data security on social media. This supports the idea that individual perceptions and behaviors related to data security are influenced by a range of factors, including cultural norms and educational background. Similarly, [25] examined students' understanding of cybersecurity concepts, their awareness of privacy settings on social media platforms, and their ability to identify and mitigate potential security risks associated with using social media. They discovered differences in data security knowledge among university students in Malaysia, highlighting the importance of targeted educational initiatives to enhance awareness and promote better data security practices.

Risk Awareness

Certain researchers conducted a study to gauge the extent of awareness among college students regarding security and privacy issues in social media [15]. Their findings revealed varying levels of awareness among students, with some demonstrating a high degree of understanding of data security risks while others displayed a lack of awareness regarding the potential threats posed by sharing personal information online. Building upon this foundation, [17] explored college students' privacy concerns and risk beliefs in social media. Their study revealed that students' risk beliefs were influenced by factors such as their perceived vulnerability to privacy breaches and their trust in social media platforms' security measures.

Expanding on these findings, [2] investigated the effects of privacy awareness, security concerns, and trust on information sharing behavior among public university students. Their study identified a complex interplay between these factors, with students' levels of privacy awareness and security concerns significantly influencing their trust in social media platforms. Furthermore, the study found that students' trust in social media platforms influenced their willingness to share personal information online, highlighting the importance of addressing these interconnected factors in promoting responsible information sharing practices among college students. In addition to exploring students' attitudes and behaviors, [13] examined the impact of external events on college students' privacy concerns and perspectives, particularly following the Cambridge Analytica scandal. Their study revealed that privacy concerns among students increased in the aftermath of such incidents, leading to a greater awareness of the importance of protecting personal data online.

Finally, [14] synthesized and expanded upon the findings of the previous studies by providing insights into students' overall attitudes, awareness, and perceptions regarding personal privacy and cybersecurity in social media use. Their study underscored the need for comprehensive education and awareness initiatives to empower students with the knowledge and skills to protect their personal data effectively online.

Attitudes

There is an impact of organizational privacy assurances on individual trust and privacy concerns in e-services, laying the groundwork for understanding the importance of trust in mitigating privacy apprehensions [6]. Users have preferences for privacy-preserving data markets and value the role of anonymity in fostering user confidence, reinforcing the significance of trust and privacy assurances in online environments [9].

A meta-analysis of internet users' privacy cognition and information sharing was conducted to kick off the conversation. This study offered more comprehensive insights into students' attitudes in a variety of digital scenarios [20].

Further contribute to this narrative [18] by examining the effects of self-efficacy and perceptions of security and privacy on attitudes toward online activities, highlighting the interconnectedness of trust, self-confidence, and privacy perceptions. Finally, [27] explore perceptions and attitudes toward responsible social media usage, emphasizing the role of education in promoting digital literacy and fostering a culture of responsible digital citizenship, which is essential for enhancing online data privacy perception among students. Together, these studies underscore the complex interplay of trust, anonymity, self-efficacy, and digital literacy in shaping students' attitudes and behaviors in digital environments, offering valuable insights for policymakers, educators, and platform developers aiming to improve online privacy protections and promote responsible digital engagement.

Privacy Practices

The examination of college students' attitudes toward data privacy lays the groundwork by establishing a baseline understanding of how these demographic values their personal information [16]. In order to provide targeted educational interventions, the study on the privacy behavior profiles of underage Facebook users complements the findings of Park and Vance by illuminating the particular habits and behaviors of a younger group [10]. The exploration of online privacy literacy levels among university students further builds upon this foundation by assessing students' knowledge and skills in navigating social networking sites securely, offering insights into potential areas for improvement in educational curricula [29].

Moreover, [3] investigation into student privacy issues in online learning environments expands the discussion to encompass the challenges posed by digital learning platforms, highlighting the importance of implementing robust privacy measures in these increasingly utilized educational settings. Finally, [5] systematic review of online student privacy research consolidates the findings of these individual studies, identifying common themes, gaps, and opportunities for future inquiry, thereby facilitating a more holistic understanding of student privacy practices and perceptions across diverse educational contexts.

Trust in Social Media Platforms

The studies by [12] and [7] delve into users' perceptions and behaviors concerning privacy and security on social media platforms, emphasizing the critical role of trust in shaping these attitudes. Such, [7] focus on trust within the Facebook context directly aligns with [12] broader exploration of trust and awareness across social media platforms, underscoring the need for platforms to build and maintain trust among their user base.

Additionally, [7] investigation into trust within specific social media environments intersects with [22] examination of barriers faced by university students when seeking academic

information on social media platforms. Understanding trust dynamics within different social media contexts informs strategies for addressing the unique challenges and concerns faced by various user groups, such as students seeking academic resources.

Furthermore, [22] study connects with [19] exploration of student perspectives on privacy in higher education, highlighting the importance of considering trust and privacy perceptions within educational contexts. Lastly, [19] examination of student perspectives intersects with [26] investigation into trust, security, and purchasing decisions through social network sites, emphasizing the broader implications of trust in social media beyond personal interactions. By understanding how trust operates across different domains of social media usage, researchers can inform strategies for enhancing user trust and mitigating privacy risks in online environments.

3. METHODOLOGY

A study was conducted on 150 students from three programs at Surigao del Norte State University, focusing on their perceptions of online data privacy. The researchers used a questionnaire and Likert Scale to assess students' attitudes, privacy practices, and trust in social media platforms. They also reviewed data privacy concerns, data security perceptions, and risk awareness as independent variables. The study aimed to understand the link between students' perceptions of online data privacy and social media behavior, providing valuable insights into the relationship between these factors.

Researchers used a tally sheet to gather data from 150 respondents on attitudes, privacy practices, and trust in social media platforms. They organized the responses into categories, allowing for efficient data processing. The mean and total mean were calculated for each dependent variable, providing an average score for central tendency. The data was then used for descriptive and density statistics during the results discussion.

The study used statistical tools like frequency count with percentage distribution and JAMOVI for data analysis. Frequency count and percentage distribution provided a clear picture of sample characteristics and categorical data distribution. Descriptive statistics from JAMOVI analyzed data on independent variables (Data Privacy Concern, Data Security Perception, Risk Awareness) and their relation to dependent variables (Attitudes, Privacy Practices, and Trust in Social Media Platforms).

Density statistics were used to measure the frequency of responses for each Likert scale option, providing a detailed distribution of opinions. This helps researchers understand central tendencies and the exact spread of opinions, allowing for better interpretation and understanding of the impact of perception on students' online data privacy.

4. RESULTS AND DISCUSSION

This chapter presents the results of the study, it is a chapter that is specifically sectioned to show the results of the survey that the researchers has administered and discusses the findings and the different data of the survey that will eventually lead to the conclusion.

Table 1 shows the details as to the gender of the respondents and the distribution among 150 respondents, with males comprising 54%, females 43.3%, and 2.7% others. The cumulative frequency column aids in detailed analysis.

Table 1: Gender of the Respondents

Gender	Percentage	Frequency	Cumulative Frequency
Male	54	81	81
Female	43.3	65	146
Others	2.7	4	150
Total	100	150	150

Table 2 reveals that 78% of respondents are enrolled in the BSCIT course, with 117 students. The second largest group is BSCS students, with 16 students. The third largest group is BSIS students, with 6%. The smallest group is BSIT students, with 8 students. The cumulative frequency column shows the total number of respondents across different courses.

Table 2: Courses of the Respondents

Course	Percentage	Frequency	Cumulative Frequency
BSCIT	78	117	117
BSCS	10.7	16	133
BSIS	6	9	142
BSIT	5.	8	150
Total	100	150	150

Table 3 shows the distribution of 150 respondents across four-year levels. First Year students make up 32%, followed by Second Year students (46%), Third Year students (12.7%), and Fourth Year students (9.3%). The cumulative frequency column shows how the total number of respondents accumulates as each year level is added. The largest group is Second Year students (46%), followed by Third Year students (136%) and Fourth Year students (9.3%).

Table 3: Year Level of the Respondents

Year Level	Percentage	Frequency	Cumulative Frequency
1st Year	32%	48	48
2nd Year	46%	69	117
3rd Year	12.7%	19	136
4th Year	9.3%	14	150

Figure 2 reveals that BSCIT students generally have positive attitudes towards data privacy concerns in social media. However, they also have good practices regarding data privacy, although their trust in social media platforms is lower. The mean score for attitudes is 4.26, indicating a generally positive outlook. The mean score for privacy practices is 4.06, suggesting good practices but less positive attitudes. The mean score for trust in social media platforms is 3.95, indicating a more cautious or skeptical view. The study highlights the importance of fostering good privacy practices and enhancing the trustworthiness of social media platforms among students.

Descriptives

	Attitudes	Privacy Practices	Trust in Social Media Platforms
N	150	150	150
Missing	0	0	0
Mean	4.26	4.06	3.95
Median	4.00	4.00	4.00
Standard deviation	0.596	0.637	0.641
Minimum	3.00	2.00	1.40
Maximum	5.00	5.00	5.00

Figure 2: Data Privacy Concern

Figure 3 shows a significant majority of students strongly agree with the concept of data privacy, with few disagreeing or strongly disagreeing, indicating a strong consensus in favor of online data privacy, and responses of very few negative attitudes.
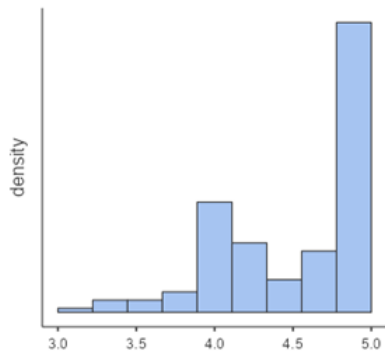

Figure 3: Attitudes

The overall result in Figure 4 shows a clear positive inclination, with most students either "Agree" or "Strongly Agree" with the importance of online data privacy in social media. This suggests that students place a high value on data privacy in the context of social media, showing a clear preference for maintaining their privacy online. The skewed distribution towards higher values also implies that there is widespread awareness and concern about data privacy issues among the students surveyed.
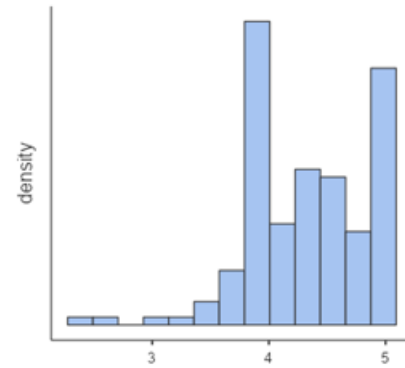

Figure 4: Privacy Practices

Further, students generally agree with their privacy practices regarding data privacy on social media. However, there are some "maybe" responses, suggesting some students are uncertain or neutral. The majority of students have a positive view of their privacy practices, with few negative perceptions. The majority of students believe they are practicing good privacy habits.

Figure 5 shows students' trust in social media platforms regarding data privacy. Most agree or strongly agree, indicating a moderate level of trust. However, a significant number are uncertain or neutral, with some having a high level of trust. A few are in the "Disagree" and "Strongly Disagree" categories, indicating a smaller portion of students have low or very low trust. Overall, students generally have a positive perception of social media platforms regarding data privacy.
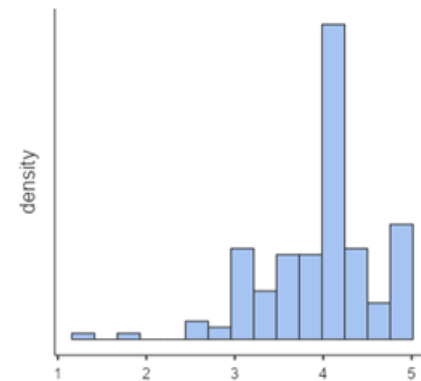

Figure 5: Trust in Social Media Platforms

Figure 6 shows students' attitudes towards data security are generally positive, with a mean score of 4.33. They have favorable opinions about privacy policies, with a median score of 4.40. However, their confidence in social media sites is slightly lower, suggesting a wider range of trust levels.

Descriptives

	Attitudes	Privacy Practices	Trust in Social Media Platforms
N	150	150	150
Missing	0	0	0
Mean	4.33	4.30	4.04
Median	4.40	4.40	4.00
Standard deviation	0.508	0.503	0.618
Minimum	3.00	2.80	1.80
Maximum	5.00	5.00	5.00

Figure 6: Data Security Perception

Figure 7 shows that most students generally agree with their attitudes towards data security, with a high density of 4.0 (Agree) and 5.0 (Strongly Agree) responses. The distribution shows a right-skewed pattern, with no students strongly disagreeing or disagreeing with the statements. The presence of responses at 3.0 suggests some students are uncertain about their attitudes, indicating a general consensus on data security's importance.
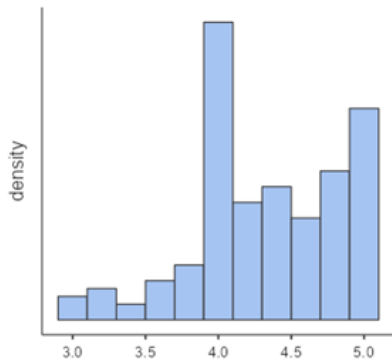

Figure 7: Attitudes

Figure 8 shows student responses on data security privacy practices, with a high density of agreeing and strongly affirming statements, and a lower density of uncertainty.
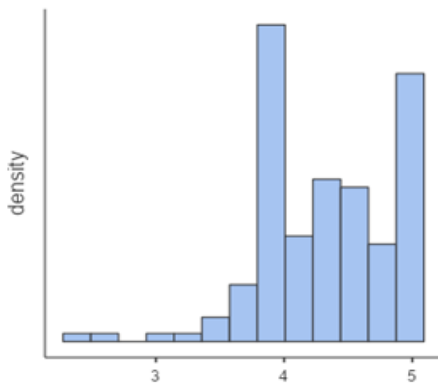

Figure 8: Privacy Practices

Figure 9 shows that majority of students express trust in social media platforms regarding data security, with a small percentage expressing uncertainty or distrust, and a small percentage expressing moderate distrust.
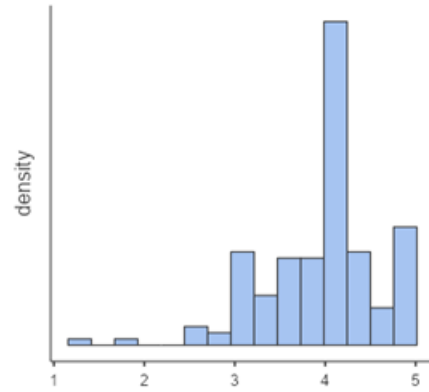

Figure 9: Trust in Social Media Platforms

Figure 10 shows that students generally have a positive attitude towards online data privacy and good privacy practices, but have high trust in social media platforms, indicating high risk awareness. However, the variance in trust levels suggests nuanced perceptions of trustworthiness.

Descriptives

	Attitudes	Privacy Practices	Trust in Social Media Platforms
N	150	150	150
Missing	0	0	0
Mean	4.34	4.22	4.03
Median	4.40	4.20	4.00
Standard deviation	0.520	0.538	0.656
Minimum	3.00	2.80	1.00
Maximum	5.00	5.00	5.00

Figure 10: Risk Awareness

Figure 11 shows that a survey on student risk awareness on social media data privacy showed a high density of agreement, indicating significant awareness of risks, with a consensus towards positive attitudes towards risk awareness.
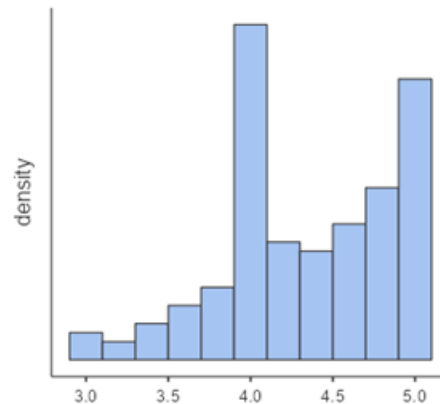

Figure 11: Attitudes

Figure 12 showed a high level of agreement, with a consensus on the importance of good privacy practices. The study suggests a consensus towards positive attitudes towards risk awareness and good privacy practices.
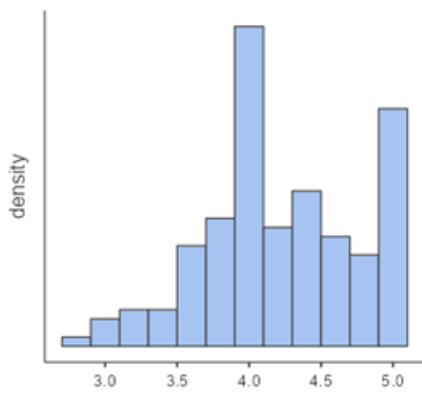
Figure 12: Privacy Practices

Figure 13 shows that most students have a high level of trust in social media platforms, despite being aware of potential privacy risks. The density of responses varies, with some showing strong distrust while others are ambivalent or uncertain. The highest density is agreed, indicating a significant number of students agree with their trust, while a substantial density is strongly agreed, indicating a high level of confidence.
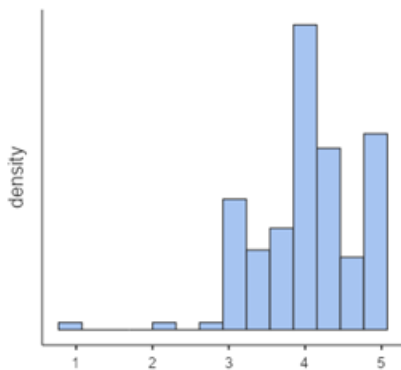

Figure 13: Trust in Social Media Platforms

5. CONCLUSION AND RECOMMENDATIONS
Conclusions

Drawing directly on the findings of the survey done by the researchers that's exhibited in the results and discussions, the researchers have found that following conclusions are as follows:
Students exhibit high concern and positive perception towards data privacy, security, and risk awareness, demonstrating a strong sense of responsibility in the digital environment and a high level of awareness.

1. Students exhibit a proactive approach to privacy practices, demonstrating a well-informed and cautious population in protecting their personal information online.
2. Students highly trust social media platforms for data privacy and security, believing they effectively protect their personal information and manage privacy-related

risks, indicating a high level of confidence in these platforms.

Recommendations

The survey reveals significant public concerns about data privacy, security, and risk awareness. To address these issues, further research is recommended. This includes investigating factors contributing to lower confidence in cloud storage services compared to traditional methods, analyzing data privacy concerns through qualitative methods, and tracking risk awareness over time. This will help develop effective strategies to address these concerns and improve public trust in cloud technologies.

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