



KuberSignal

KuberSignal

Navigating the Data Privacy Paradox: Investigating the Gap between Concerns and Actions

Uncovering the Disconnect:
Examining the Relationship
between Data Privacy
Concerns and Social Media
Usage



Overview

In this whitepaper, we delve into the growing concerns surrounding data privacy and the increasing number of cyber threats. Through statistical analysis, we examine the perceptions and actions of individuals regarding data privacy and various cyber threats, including the influence of social media platform usage and preferences among different age groups.

Our research uncovers a paradox between individuals' expressed concerns and their actions, such as a high usage of social media among those who express the most concern for data privacy. Additionally, we explore the potential reasons for lower threat perception among certain cyber threats, such as Phishing and Ransomware.

Overall, the paper provides a comprehensive overview of the current state of data privacy and offers insights that can guide businesses, researchers, and government entities in their decision-making around data privacy rules and regulations.

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"The gap between our expressed concerns about **data privacy** and our actions highlights the need to delve deeper into the complexities of the issue and take proactive measures, in order to **bridge the gap** between our concerns and actions, before it becomes **even more pronounced**."

Maham Haroon | Founder



Introduction

In medieval Europe, it was common for pickpockets to target crowded markets and fairs. The crowds provided cover for their activities and the bustling atmosphere made it difficult for victims to notice when they were being robbed.

Then during the 18th and 19th centuries, pickpocketing became a more organized and professional activity. Criminal gangs, known as "fences," began to specialize in pickpocketing and other forms of theft. These gangs would often work together, with one member distracting the victim while another would pick their pocket.

Today, cybercrime has taken on similar patterns. Criminal syndicates specialize in data theft and use the cover provided by the crowded digital space of social media platforms to steal personal information. The hope is that, like pickpocketing, if correct measures are taken, data stealing crimes will become scarcer.

This whitepaper investigates data privacy concerns from the perspective of the general public. Through the research, there's a hope to shed some light on this issue.

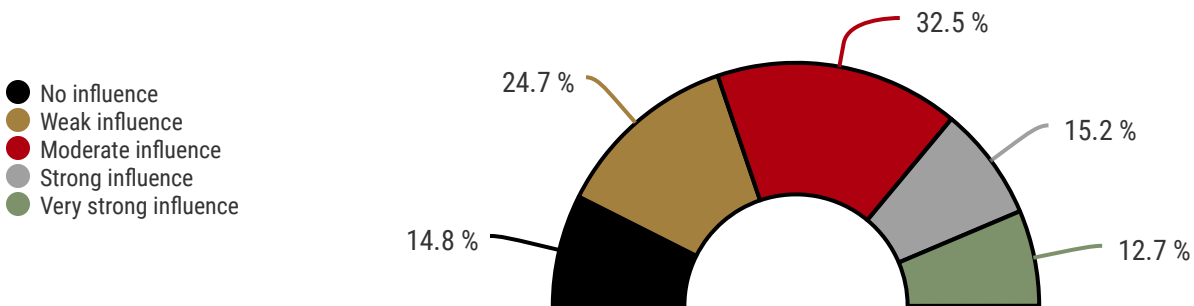
Some of the more interesting findings are:

- On average people aged 18-29 used the most number of social media with on average **49%** of people in that age group using 4 or more social media platforms whereas the overall average for other people was **32%** using 4 or more social media platforms.

Age Group	Average Number of Social Media Platforms Used
18-29	3.585
30-44	3.397
45-60	3.052
> 60	1.698

- The survey revealed that men were **twice** as likely as women to claim that social media did not influence their purchasing decisions, with **21%** of men stating this, compared to only **10%** of women.
- Participants in the **30-44** age group expressed the highest level of concern for their data privacy, with an average rating of **8 out of 10**.
- According to the INTERPOL **Global Crime Trend Report 2022**, Ransomware and Phishing and Online Scams were ranked as the top crime trends that are most likely to increase or significantly increase. However, the survey participants ranked **Phishing** as the fourth most concerning threat and **Ransomware** as the fifth, with **30%** of participants expressing concern about Phishing and **23.68%** expressing concern about Ransomware.

Influence of Social Media on Purchase Decisions



Social Media Usage Trends by Age Group

Our research examined the social media habits of four different age groups: 18-29, 30-44, 45-60, and 60+. We asked participants if they used platforms such as Facebook, Snapchat, TikTok, Reddit, Instagram, Pinterest, and Twitter. The findings revealed significant variations in social media usage across the age groups.

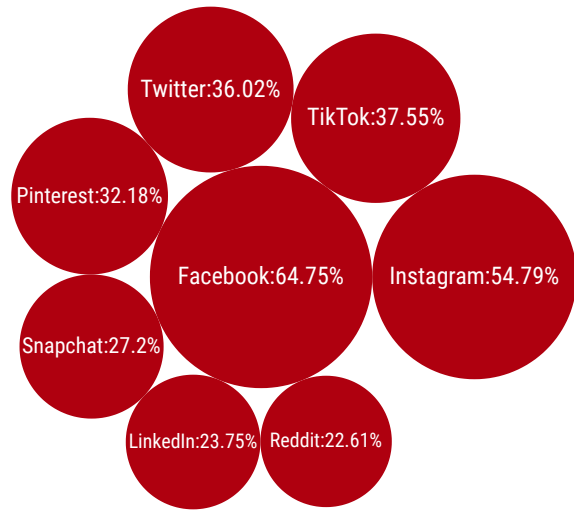
For example, Facebook was the most widely used platform overall, but only **40%** of the **18-29** age group used Facebook.

Interestingly, this group also had the highest average number of social media platforms used. On average, Facebook users used about **3** social media platforms, which is the lowest among the social media platforms examined. However, SnapChat users had the highest average of **5** social media platforms used.

Additionally, Facebook was the most popular platform among all other age groups, while Instagram, Snapchat, and TikTok were most commonly used by the **18-29** age group. LinkedIn and Reddit had the highest number of users in the **30-44** age range.

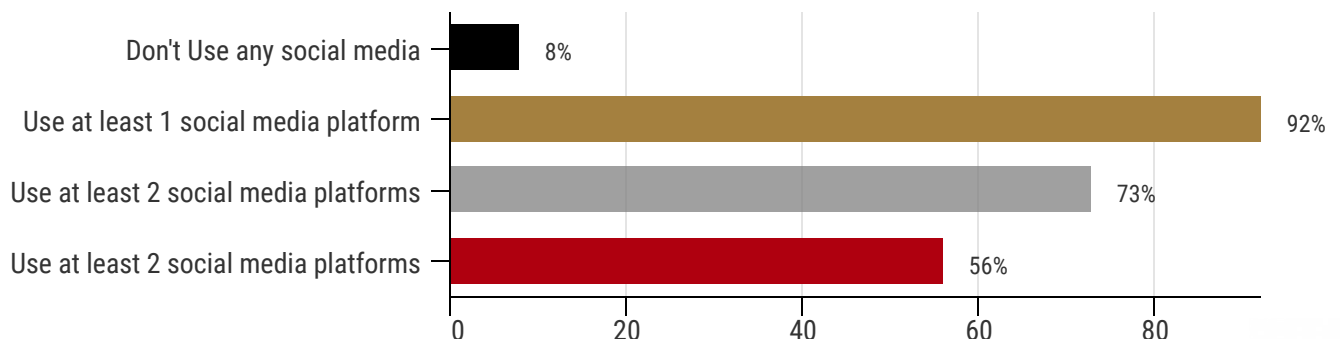
Lastly, the **60+** age group had the lowest number of social media users with **21%** not using any platform, compared to only **5%** for the other age groups.

Usage of Social Media by Overall Population

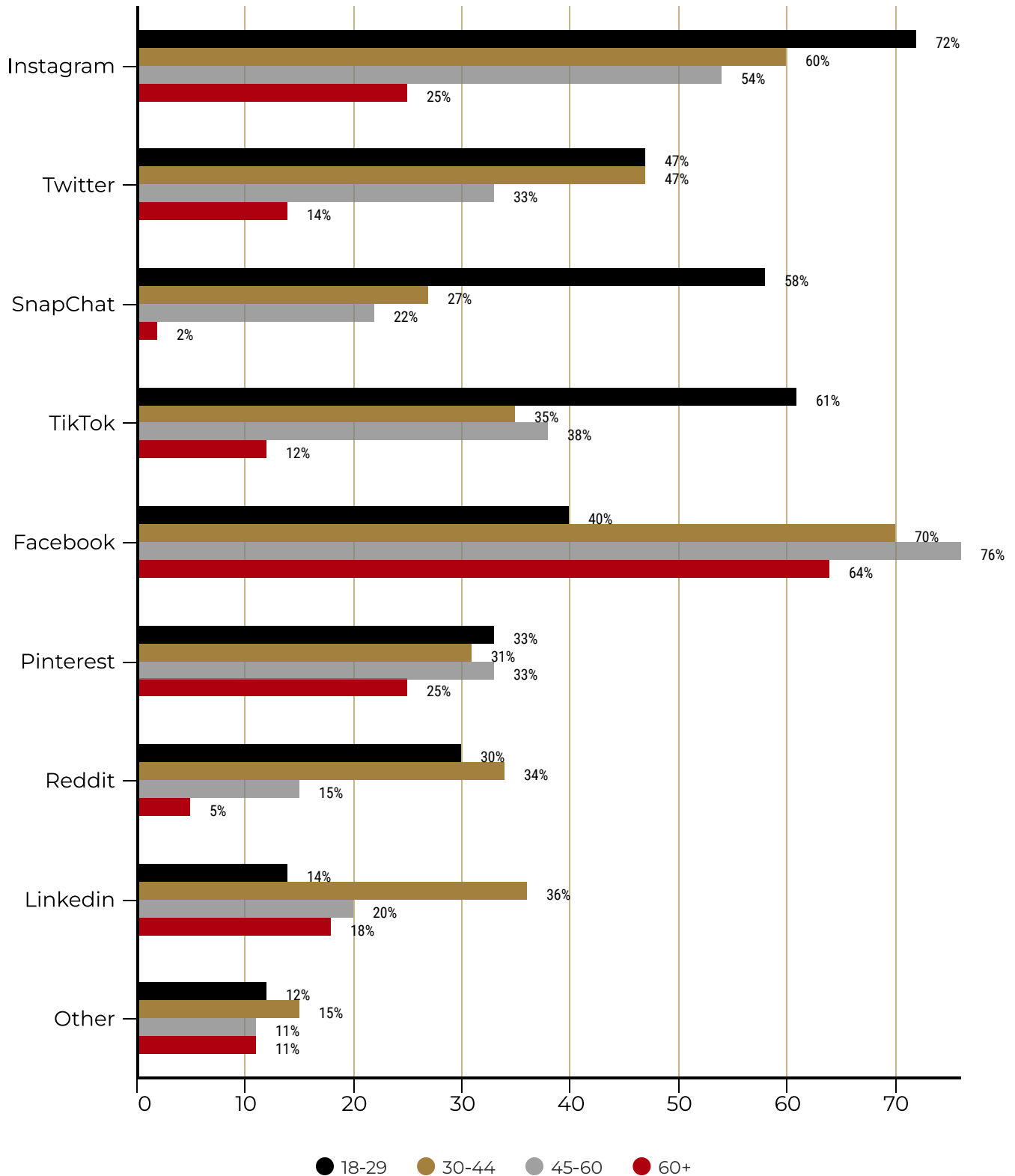


Examining the patterns of social media usage among different age groups can offer a deeper understanding of the social media platforms that are preferred by specific demographics, and how this relates to their data privacy concerns, their susceptibility to other online risks, and the appropriate measures to protect them, based on their social media behavior.

Number of Social Media Platforms Used



Social Media Usage by Age Group

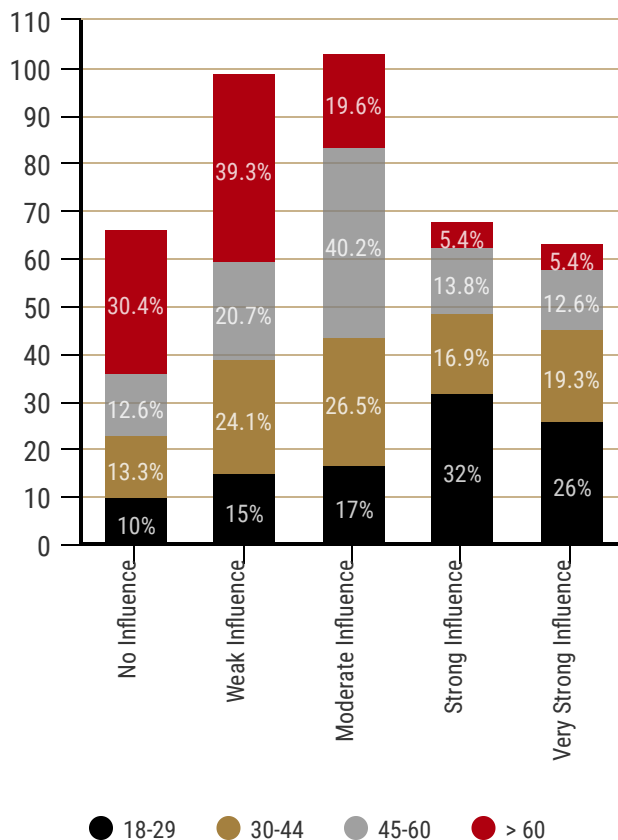


Perceived Influence of Social Media on Purchases

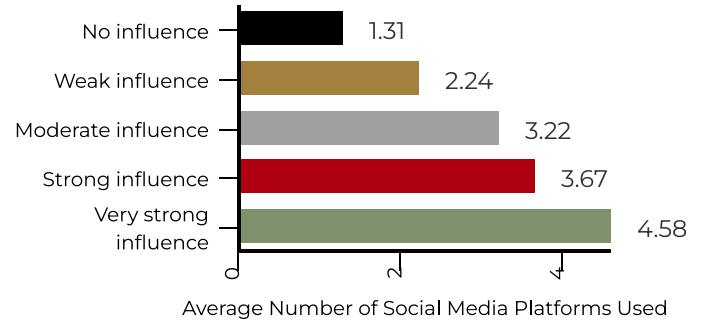
Younger participants were more likely to perceive their purchase decisions are strongly influenced by social media compared to older participants

KuberSignal surveyed participants on the impact of social media on their purchasing decisions. Results showed that individuals aged **18-29** were almost **twice** as likely to report that social media had a strong or very strong influence on their purchases. This correlation is in line with a study by the National Retail Federation, which found that social media is the top source of inspiration for shoppers aged **23-38**, with **39%** citing its use in researching products prior to making a purchase.

Influence of Social Media on Purchases as Perceived by Different Age Groups



Affect of Number of Social Media Platforms Used to Perceived Influence of Social Media on Purchases



Additionally, **12.7%** of social media users reported that they believe that social media has a significant impact on their purchases. However, this is lower than the findings of a study by McKinsey & Company, which found that social media influences purchase decisions for as much as **30%** of all consumers. The number grew for younger participants.

Another study by the Digital Marketing Institute found that nearly **80%** of 18-34 year-olds use social media to research products before making a purchase.

These findings suggest a discrepancy between users' perceptions and actual behaviors when it comes to the influence of social media on purchasing decisions.

Linear relationship between average number of social media platforms used and perceived influence of social media on purchases

It is noteworthy that participants aged **18-29**, who also happen to be the group that uses the most number of social media platforms, were found to be the most likely to indicate that their purchasing decisions were strongly or very strongly influenced by social media.

Age may be a confounding factor in determining the correlation between perceived influence on purchases and the number of social media platforms used.



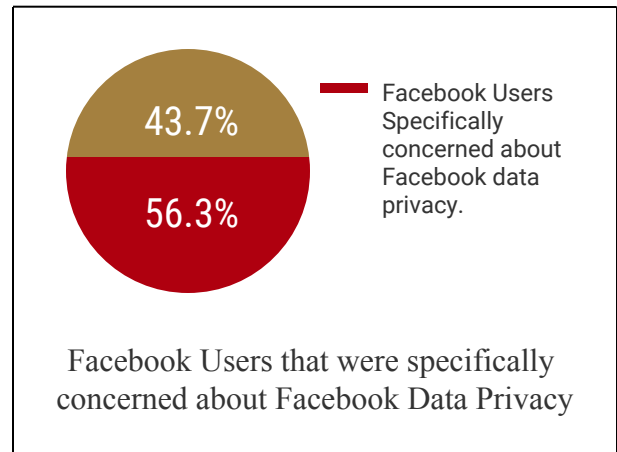
A Statistical Analysis of Data Privacy Concerns

Data Privacy Concerns refer to the anxiety that personal information shared with a platform or company will be used without an individual's knowledge or consent. This concern is often exacerbated by the fact that individuals may not fully understand or read privacy policies for the services they use. Additionally, data breaches can occur, putting personal information at risk and taking away control from both the individual and the company.

KuberSignal surveyed participants of various age groups to gauge their level of concern for data privacy on a scale of 1 to 10. The overall average score was around **7.5 out of 10**.

Interestingly, despite high usage of social media and awareness of cyber threats, **18-29** year-olds rated their concerns for data privacy the lowest. This could be attributed to feelings of resignation or trust in future security measures.

An intriguing finding is that individuals who use 8 or more social media platforms have a very high average concern for data privacy (**9 out of 10**), yet they continue to engage with a large number of these platforms. Notably, only **3.8%** of users reported using **8** or more platforms, which is significantly lower than the average of 3 to 4 platforms. In contrast, those who use an average of 3 to 4 platforms have a data privacy concern of **7 out of 10**. This suggests that there may be a disconnect between users' concern for privacy and their actions on social media.

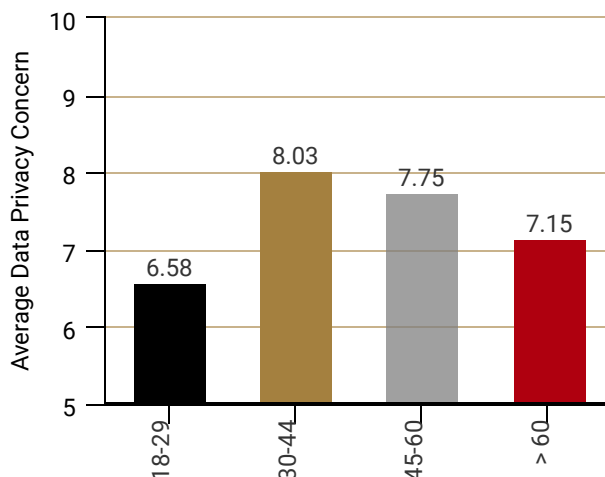


FACEBOOK DATA PRIVACY CONCERNS STAND OUT

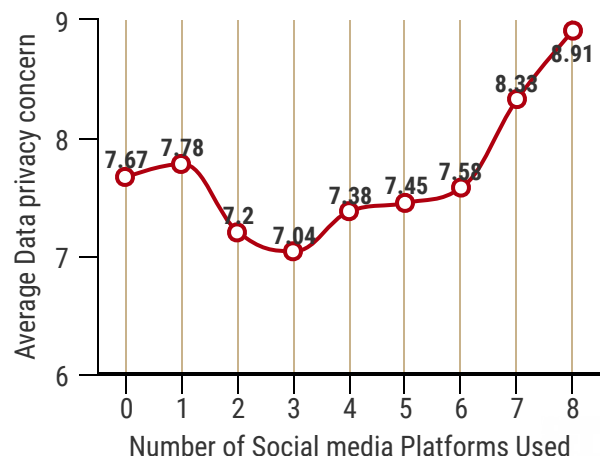
When queried about their data privacy concerns regarding social media platforms, approximately **49%** of surveyed individuals expressed concern about data privacy on Facebook, with **56.3%** of Facebook users specifically expressing concern.

Additionally, **11%** of participants expressed concern about data privacy on all social media platforms, however, this did not affect their use of the platforms.

Data Privacy Concerns by Age Group



Data Privacy Concerns in Relation to Number of Social Media Platforms



An In-depth Look into Specific Cyber Threats

The research study surveyed participants about their concerns regarding various data privacy-related cyber threats. In order to provide clarity for the participants, terms were defined as follows:

Critical Data Loss: This refers to the compromise of sensitive Personally Identifiable Information (PII) such as social security numbers, bank account information, or credit card details.

Non-critical Data Loss: This refers to the unauthorized access and control of an individual's non-PII but still important information.

Compromised Systems: This refers to systems that have been slowed down or disrupted due to account takeover, malware, or system failure.

Phishing: This includes phishing, smishing, and vishing attacks that attempt to trick individuals into providing sensitive information.

Marketing Data Usage: This refers to the use of data for analytics, advertising, and sales.

Utilization of Screening Data: Examining Information for Loan Approvals, Credit Evaluations, and Job Candidate Assessments.

Ransomware: This refers to a type of cyber attack in which the attacker encrypts or locks the victim's data and demands a ransom payment to restore access to it.

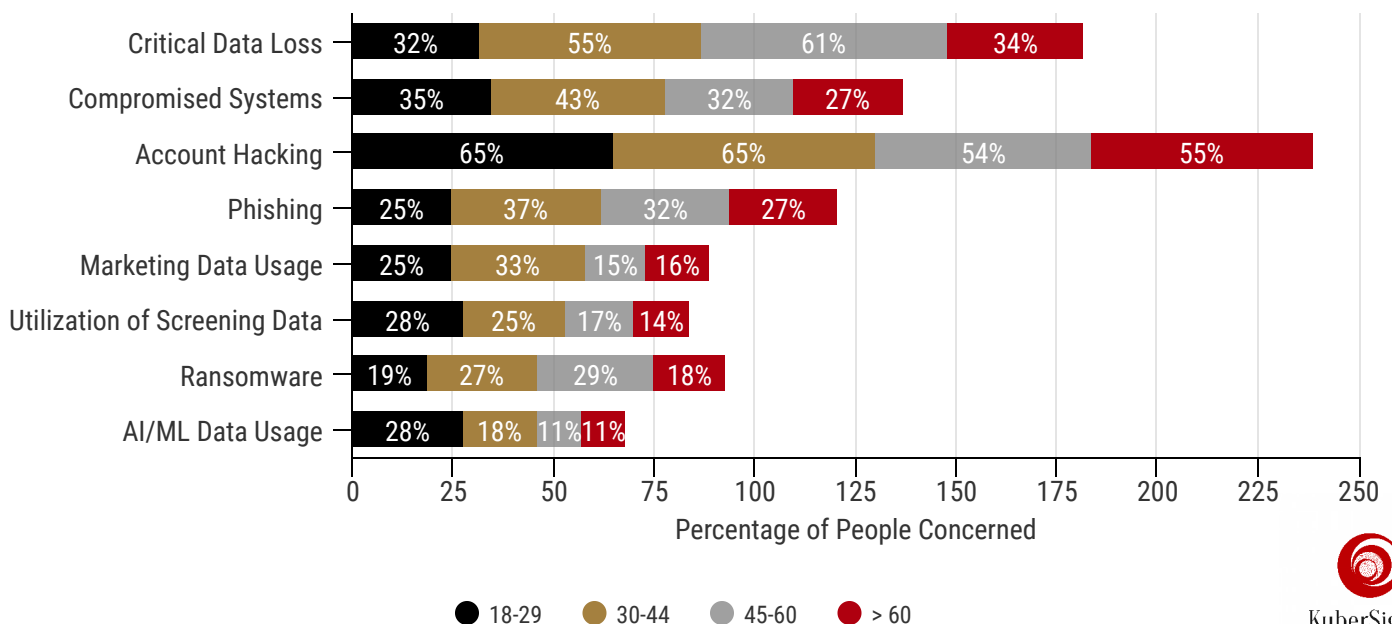
AI/ML Data Utilization: This pertains to the current and potential utilization of user data by Artificial Intelligence and Machine Learning systems.

The survey results revealed varying levels of concern among participants about different types of cyber threats and their potential impact on data privacy. An intriguing discovery was that participants' concern about AI/ML data usage consistently decreased with age, which could suggest that younger individuals have a higher level of awareness about AI/ML.

Additionally, most age groups expressed greater concern about the potential loss of generic data, as opposed to critical data, suggesting a higher perceived likelihood of such an occurrence. The **30-44** age group demonstrated the highest level of worry about all types of data threats, although this group also had the highest average data privacy concerns, but not as high social media presence as the **18-29** age group.

On the other hand, the **60+** age group showed the least concern for the cyber threats mentioned in the survey.

Data Related Threat Concerns by Age group



Conclusion

In conclusion, our research delves into the intricate and multi-faceted nature of data privacy and cyber threats. Through statistical analysis, we have discovered a discrepancy between individuals' stated concerns and their actions, particularly in relation to social media usage. Additionally, we have examined a lower perception of rapidly increasing threats such as Phishing and Ransomware, which may be due to a sense of resignation towards data privacy or faith in future security advancements. However, it is uncertain which of these is the correct explanation without conclusive evidence.

Overall, this whitepaper presents a comprehensive overview of the current state of data privacy from the perspective of the individual and offers valuable insights that can assist businesses, researchers, and government entities in making decisions around data privacy rules and regulations. It is evident that data privacy is a crucial issue with a significant gap between perception and action of the individual, which necessitates ongoing attention and action. As the digital realm continues to evolve, it is vital that businesses, researchers, and government entities stay informed and take proactive measures to safeguard the data privacy of individuals.

Call to Action

The white-paper urges businesses, researchers, and government entities to utilize the insights provided in the paper to make informed decisions about data privacy regulations. This includes addressing the disconnect between individuals' expressed concerns about data privacy and their actions, such as high social media usage among those who express the most concern for data privacy. Additionally, it highlights the need for increased awareness of rapidly increasing cyber threats like Phishing and Ransomware, and the potential reasons for lower threat perception among certain cyber threats, such as resignation or belief in future security advancements.

The white-paper also calls on individuals to take more control of their online behavior by being more mindful and deliberate in their use of social media platforms, while also being aware of potential cyber threats. It is vital that businesses, researchers, and government entities, as well as individuals, take steps to protect data privacy as the digital landscape continues to evolve.

This Paper is written by Maham Haroon, Founder of KuberSignal. The research was conducted in the latter half of 2022 and have a margin of error of 5% at a 95% confidence level. Additionally, it should be noted that the standard deviation for all conclusions derived from the data was relatively low, indicating a high level of precision.



Contact Us

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Or visit the official website:

<https://www.kubersignal.com>

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About the Author



The author of this white-paper, Maham Haroon, is the founder of small startup, KuberSignal that aims to bridge the gap between security and Artificial Intelligence by utilizing the later in instigating tools and awareness to the public about their data privacy.

Before starting KuberSignal, Maham worked as a thought leader in the field of Data Science at a leading cyber security company, where she contributed to several whitepapers and developed notable projects such as a vulnerability viability classifier.

Maham also has a rich technical background in Data Science, Computer Science, machine learning, Electrical Engineering and Robotics, and holds certifications in Business and Cyber Security from leading institutes.

She has also been recognized as an industry expert and judge at various business awards, further validating her knowledge and expertise in the field.