



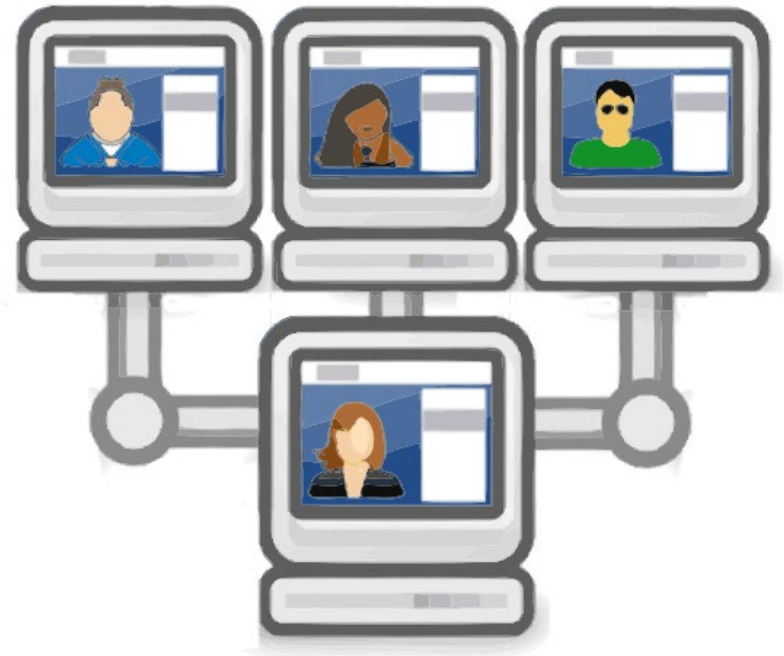
From Social Sharing to Security Lessons: Behaviors, Disclosure, and Cyber Threats

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Social Sharing on SNSs

- SNS = Social Networking Site
- Virtual communities like Facebook, Instagram, etc.
- Users often share personal information on SNSs.



SNS Usage Motivations

- 7 behavioral categories based on Horzum (2016).



Maintaining Existing Relationships



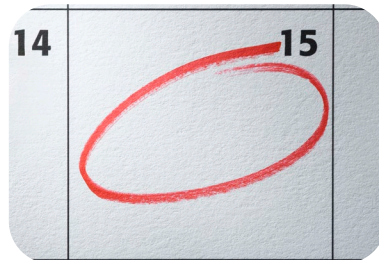
Meeting New People & Socializing



Make, Express, or Present More Popular Oneself



Pass Time



A Task Management Tool



Entertainment



Information And Education

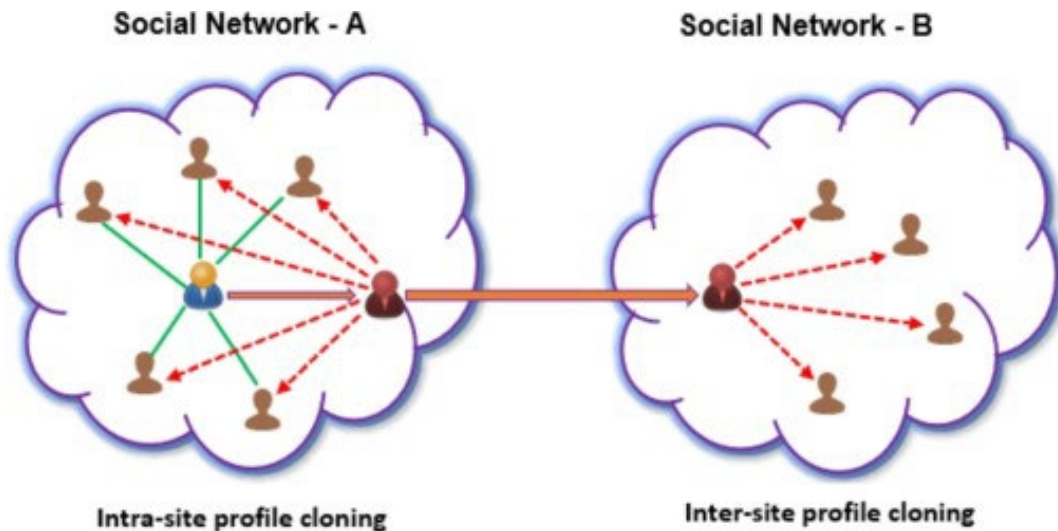
Cybersecurity Threats on SNSs



- Privacy Breaches
- Viral Marketing
- Network Structural Attacks
- Malware Attacks



Cybersecurity Threats: Privacy Breaches

- Profile cloning
- Server-side data breaches



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235 Million Instagram, TikTok And YouTube User Profiles Exposed In Massive Data Leak

By [Davey Winder](#), Senior Contributor. © Davey Winder is a veteran cybersec... [Follow Author](#)


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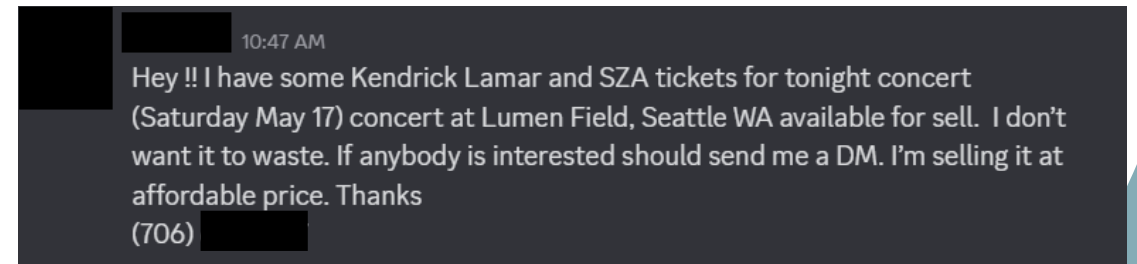
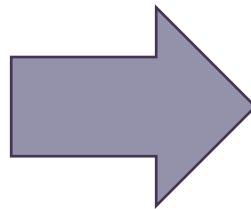
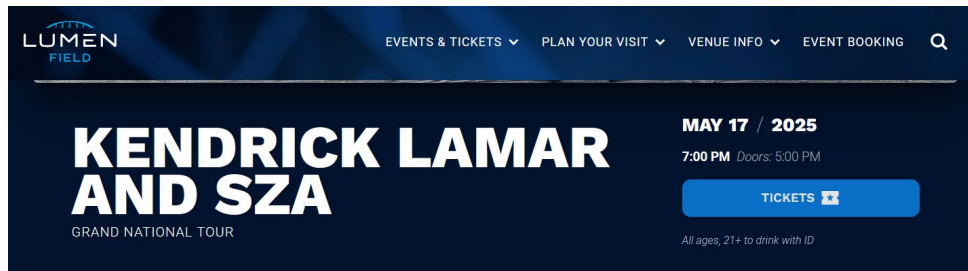


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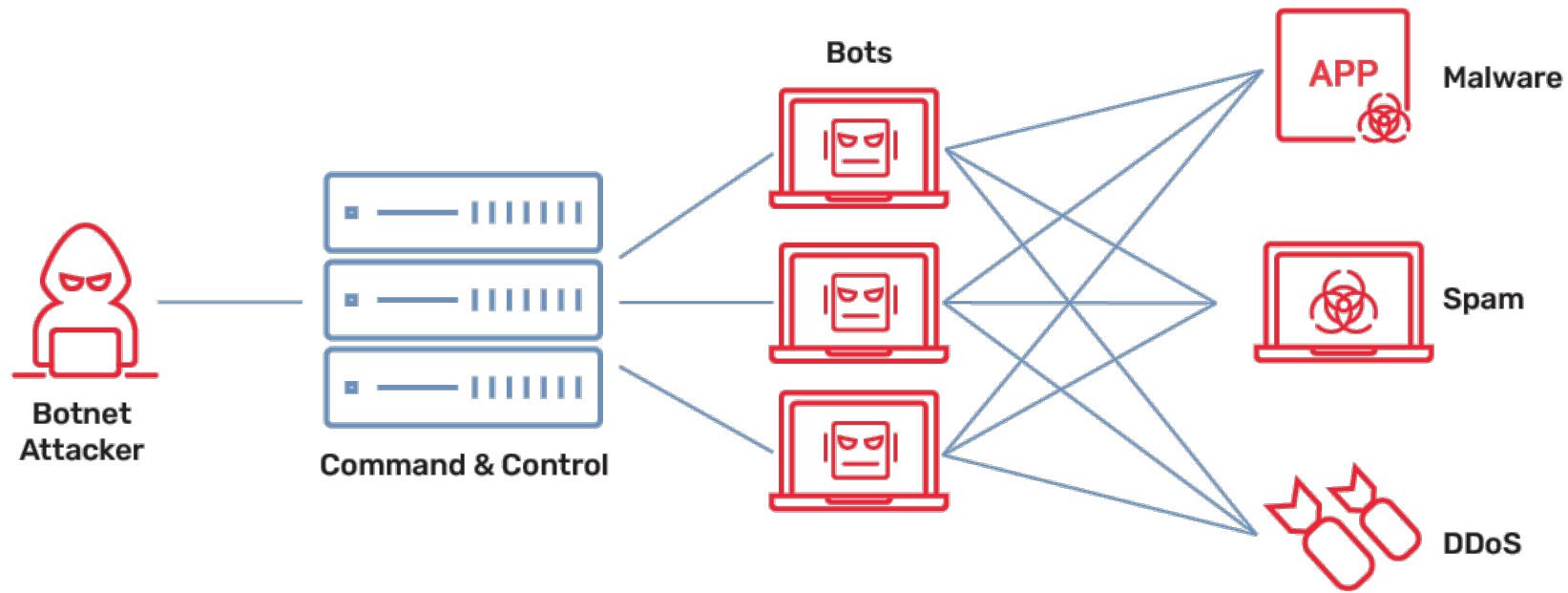
Cybersecurity Threats: Viral Marketing

- Broadcast spam
- Context-aware spam



Other Cybersecurity Threats

- Network structural attacks
- Malware



Research Questions



- **RQ1:** What are the connections between **usage patterns of social networking sites (SNSs)** and **cybersecurity behaviors**?
- **RQ2:** Is there a relationship between **personal information disclosure** on SNSs and **cybersecurity threats**?

Study Design



Mixed-methods
Survey & Interview

Correlation analysis for quantitative data
One-way ANOVA for categorical data

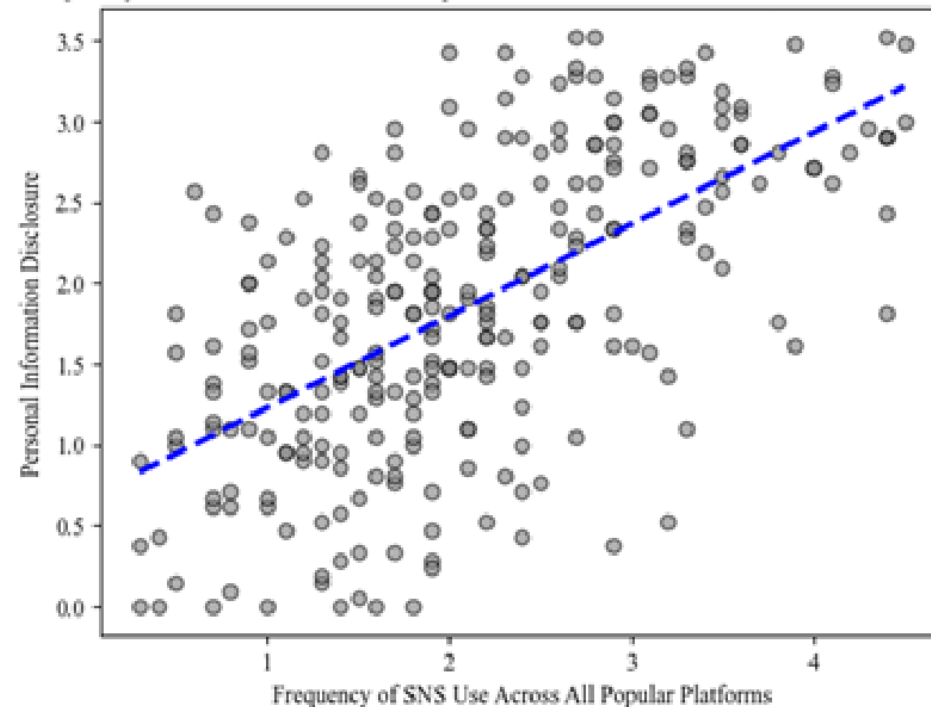


Domains: SNS usage frequency, motivations, personal information disclosure, cybersecurity behavior, cybersecurity threat experience

Correlation Analysis: Usage Frequency

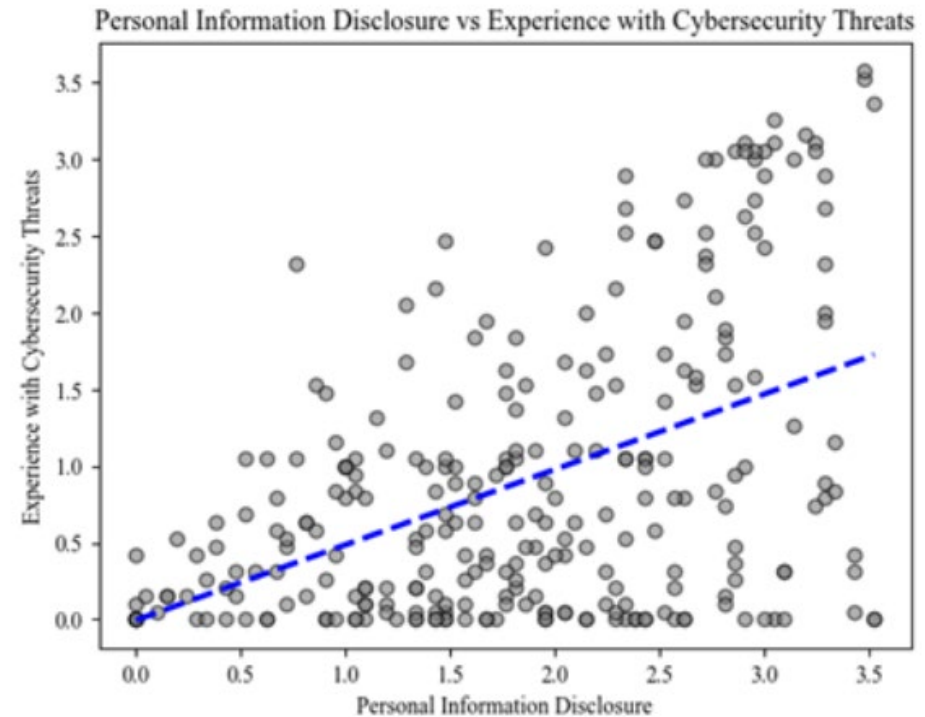
- Frequent SNS usage correlated to more personal information disclosure.
- Also correlated to more frequently encountering cybersecurity threats.
- Not significantly correlated to cybersecurity behavior.

Frequency of SNS Use Across All Popular Platforms vs Personal Information Disclosure



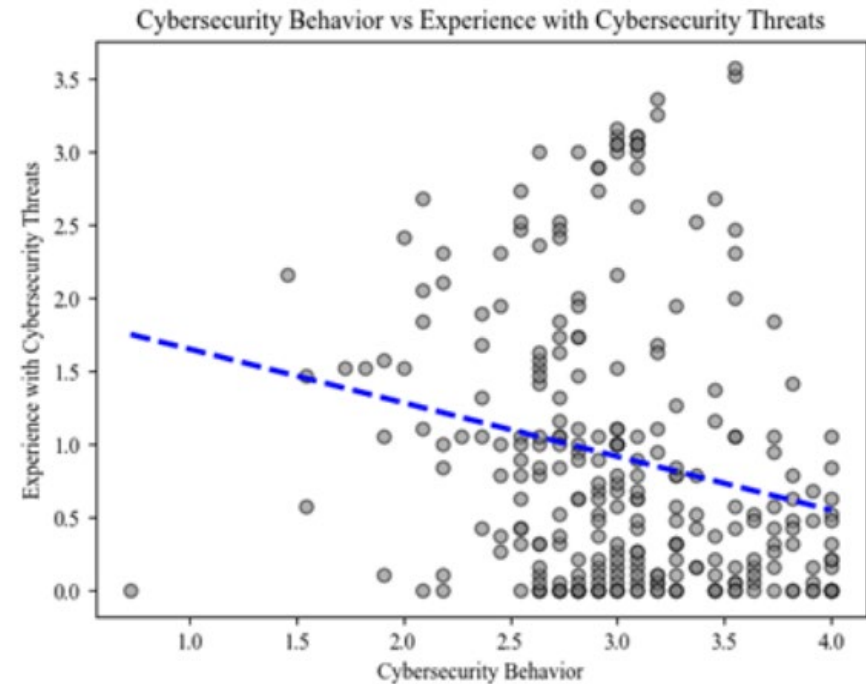
Correlation Analysis: Personal Information Disclosure

- More personal information disclosure correlated to more frequently encountering cybersecurity threats.
- Again, not significantly correlated to cybersecurity behavior.



Correlation Analysis: Cybersecurity Behavior

- Few significant correlations with factors of the study.
- More encounters with cybersecurity threats correlated to improved cybersecurity behavior.



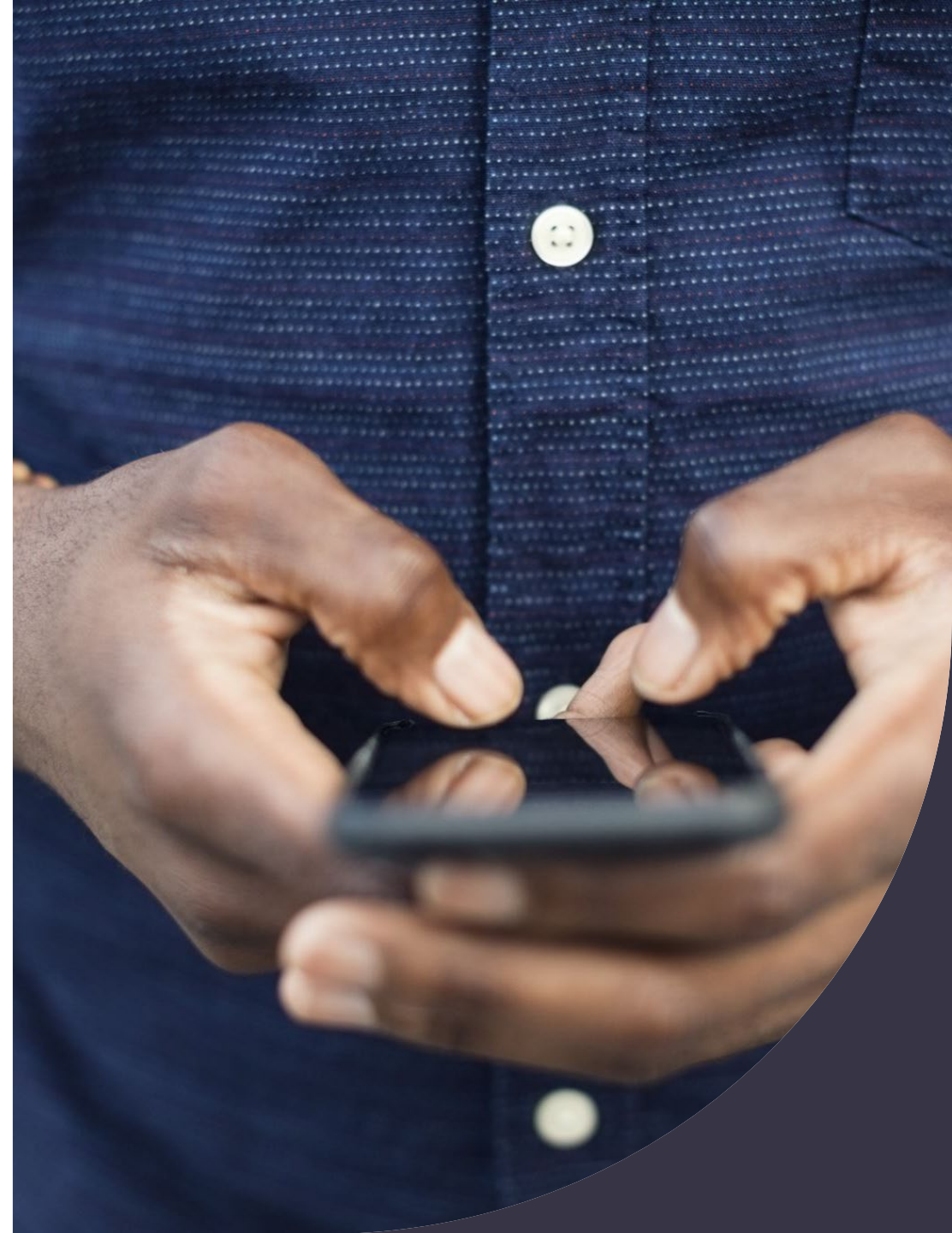
ANOVA for Demographic Groups

- Significant variance for age and education.
- Younger and more educated respondents reported:
 - More frequent SNS usage
 - More personal information disclosure
 - More often encountering cybersecurity threats



Interview Highlights

- Most popular SNSs were Instagram and TikTok.
- Subjects **encountered threats most often** on Instagram, Discord, and X/Twitter.
- Phishing, scams, spam, and profile cloning were most common threats.



Interview Highlights

- After prior experience, users were more aware of cybersecurity threats.
- Reliance on personal judgment rather than formal cybersecurity strategies.



Privacy and Security



- Subjects expressed concern over **data privacy**.
- Conflating **privacy behaviors** (e.g. VPNs, ad blockers, fake names) with security measures.
- Perceived trade-offs between **social connection** and **privacy**.

Answering Research Questions

- **RQ1**: Cybersecurity behaviors are, in general, not strongly correlated with usage patterns of SNSs.
- **RQ2**: Increased personal information disclosure correlates with increased experience of cybersecurity threats.



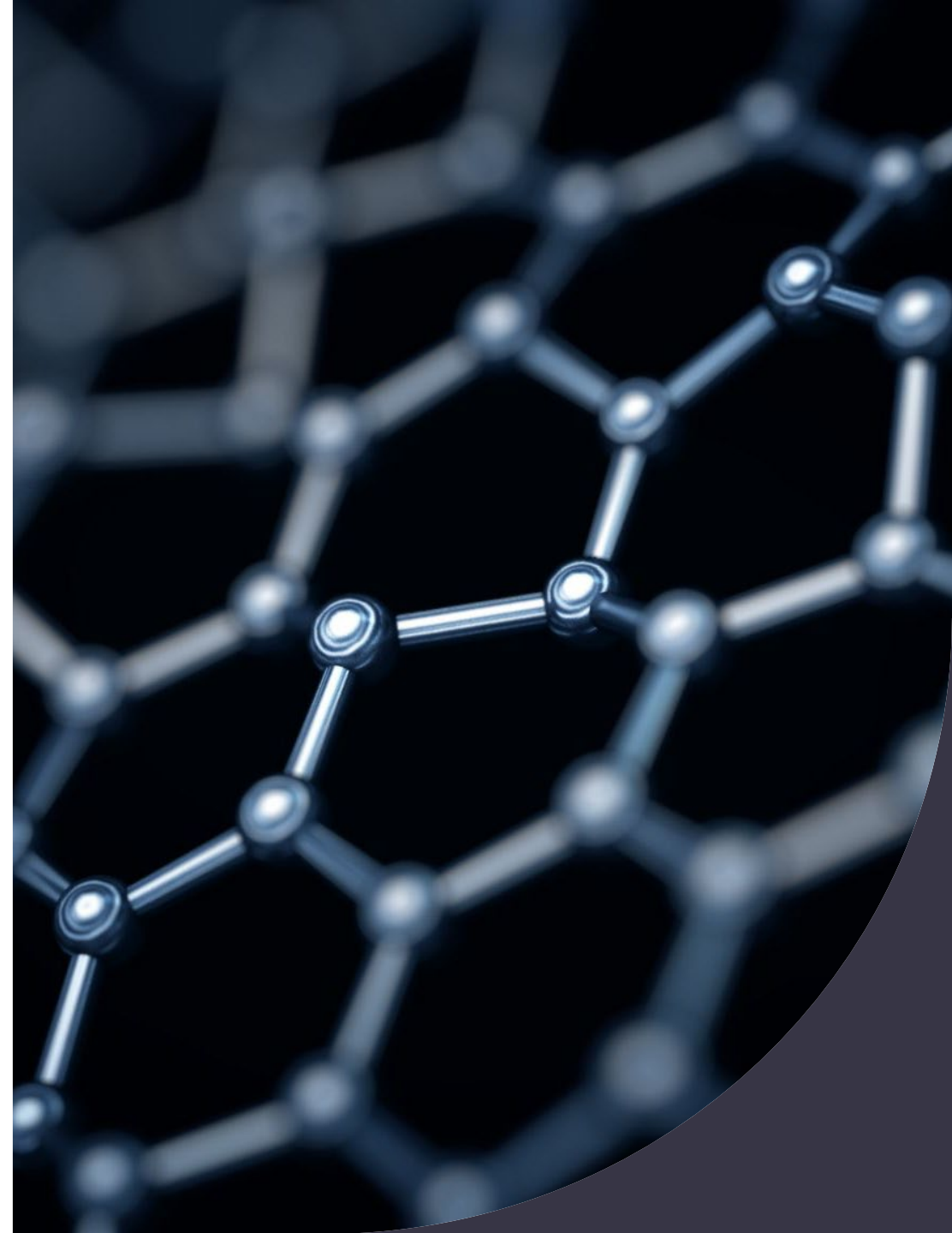
Takeaways

- Information disclosure factors into SNS user security
- Awareness alone is not sufficient for security behavior.
- Interviews highlight how trust factors into security risks.



Opportunities for Future Research

- Does increased personal information disclosure **cause** increased attack susceptibility?
- Potential for **more objective measurement** of factors in this study using product telemetry.



Thank You!

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