MOTIVATION

- Shoulder surfing is a prevailing threat when accessing smartphone information.
- Despite several mechanisms, when & what mechanism to use & which content requires the most protection while maintaining appreciable user experience and usability remain a challenge.

STUDY DESIGN

- Online survey with N=40 participants.
- The participants were presented location-specific questions to capture the perceived sensitive content in shoulder surfing scenarios.
- Analyzed the data through inductive coding & checked for data saturation.



"I hate when people do this; there's a lot of sensitive content for me" – A Typology of Perceived Privacy-Sensitive Content in Shoulder Surfing Scenarios

KEY TAKEAWAYS

- The need for the protection mechanism varies with the context of the use.
- Users consider location and relationship with the observer when hiding content.
- Our results highlight different content types require a different level of protection.
- We present a typology of Perceived Privacy-Sensitive Content. The table on the right illustrates which types of content users are uncomfortable revealing to bystanders in their respective environments.
- Our typology can be used as a baseline for designing personalized shoulder surfing protection mechanisms.







TYPOLOGY of PERCEIVED SENSITIVE CONTENT

Public Transport	
Email	Body Text
Messaging	Body Text
Private Environment	
Messaging	Messages List
Web Browser	Entire Screen
Workplace	
Gallery	Entire Screen
Email	Body Text
Theatre Halls	
Banking	Entire Screen
Social Media	Photos
Narrow/Crowded Places	
Messaging	Entire Screen
Social Media	Messages List
University	
Web Browser	ID & Password
Café/Bar/Restaurant	
Gallery	Entire Screen
Messaging	Contact Info
Lectur	
Social Media	Photos
Email	ID & Password
Location	

Application

Content Type