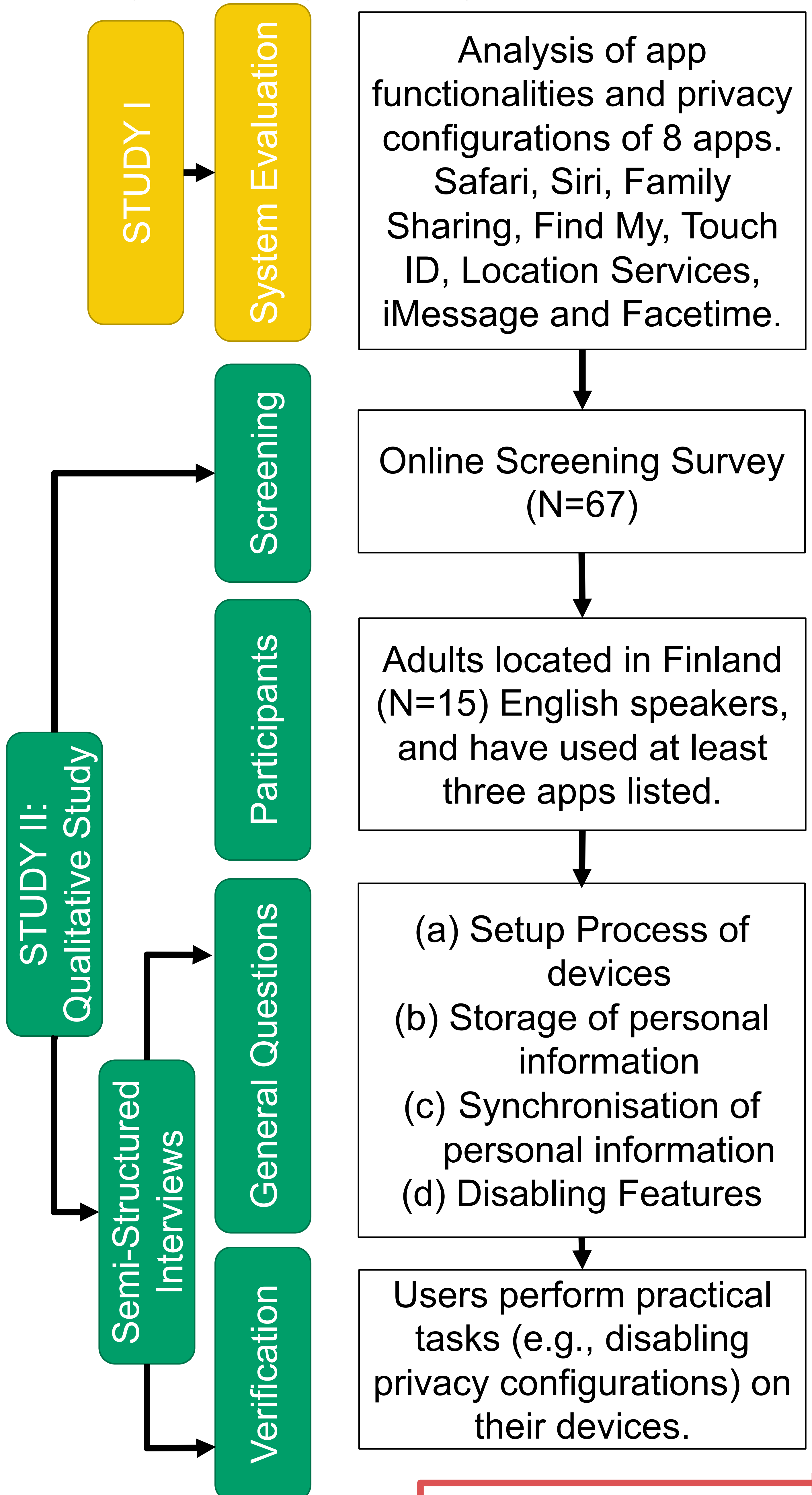


Understanding Privacy and Security of Mobile Ecosystems

Figure 1: Flow diagram illustrating mixed methods approach



What is a Mobile Ecosystem?

- A mobile ecosystem consists of units (e.g., devices) that interact with each other through information exchange.
- Mobile ecosystems provide **convenience, ease of use** and a **cohesive experience**.

Challenges with Mobile Ecosystems

- Growth in **complexity**.
- Certain privacy configurations of default apps are **only prompted once** during initial device setup.
- Prior work suggested that users often have **misconception** about data sharing on smart phone apps [1,2].

Research Study Findings

- Participants were **confused** about what happened to their information.
- Participants **did not know how to disable** many privacy configurations.
- Location Tracking can induce **trust issues** in family relationships.

[1] J. Tan, K. Nguyen, M. Theodorides, H. Negrin-Arroyo, C. Thompson, S. Egelman, and D. Wagner, "The effect of developer-specified explanations for permission requests on smartphone user behavior," CHI '14. New York, USA: Association for Computing Machinery, 2014, p. 91-100.
[2] R. Balebako, J. Jung, W. Lu, L. F. Cranor, and C. Nguyen, "Little brothers watching you": Raising awareness of data leaks on smartphones," SOUPS '13. New York, NY, USA: Association for Computing Machinery, 2013.

Example case
When enabling Touch ID, users are unable to read where their finger print information is stored upon initially setting up their device. Apple claims that finger print information is never stored on Apple's servers.

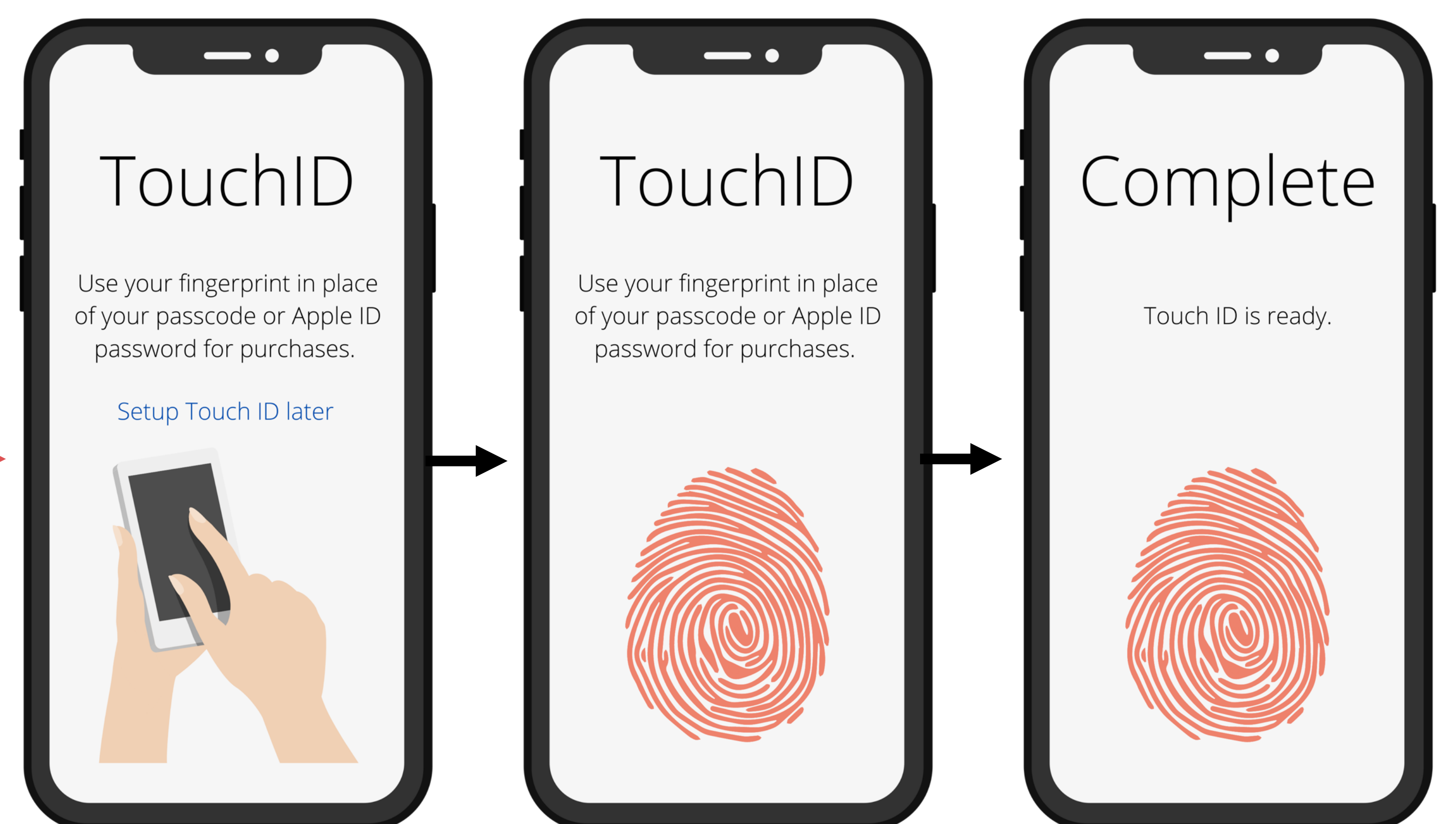


Figure 2: Setup process of Touch ID feature (fingerprint scanner) for Apple devices