Designing Meaningful Privacy Choice Experiences for Users

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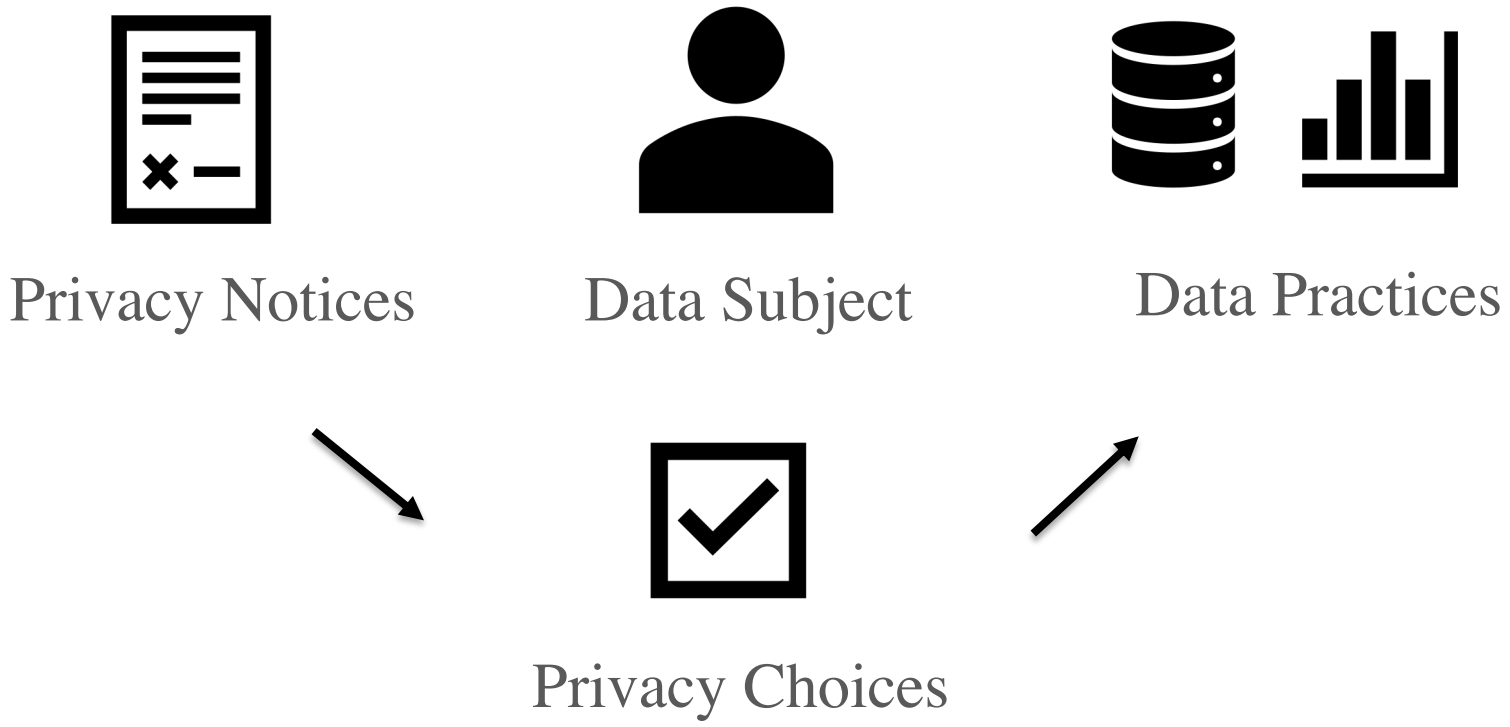
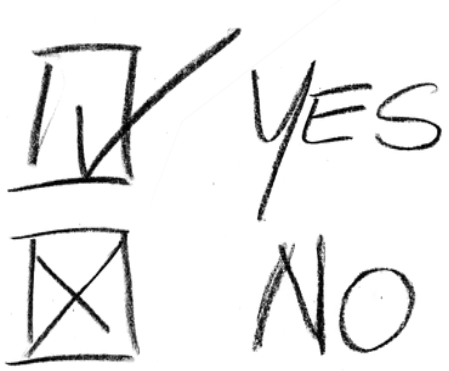
“Notice and Choice”



Privacy choices are often difficult to find, overly simplified, and even manipulative.

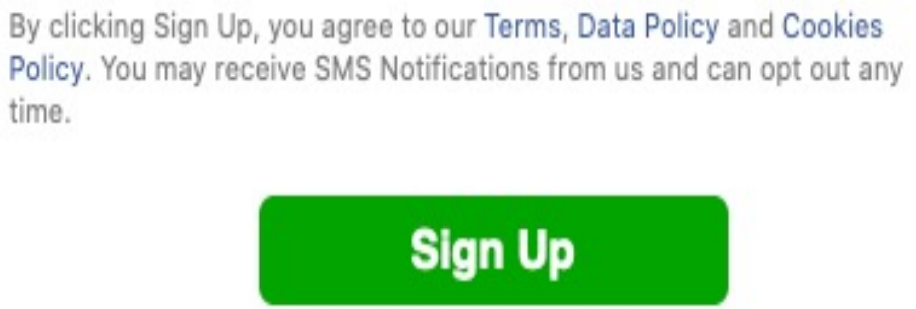
Difficult to find on user interfaces



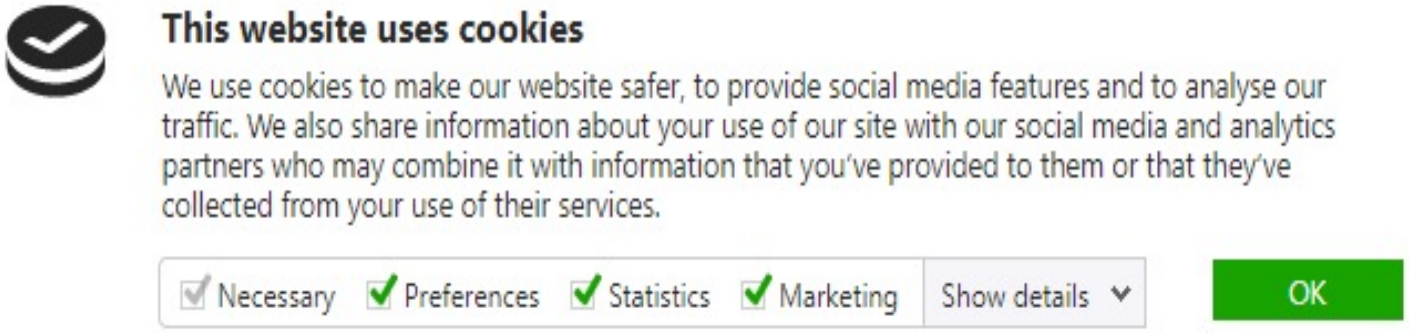
Overly simplified into binary choices

Manipulative using “dark patterns”

“Dark Patterns” in Privacy Choice Design



→ hidden privacy choices

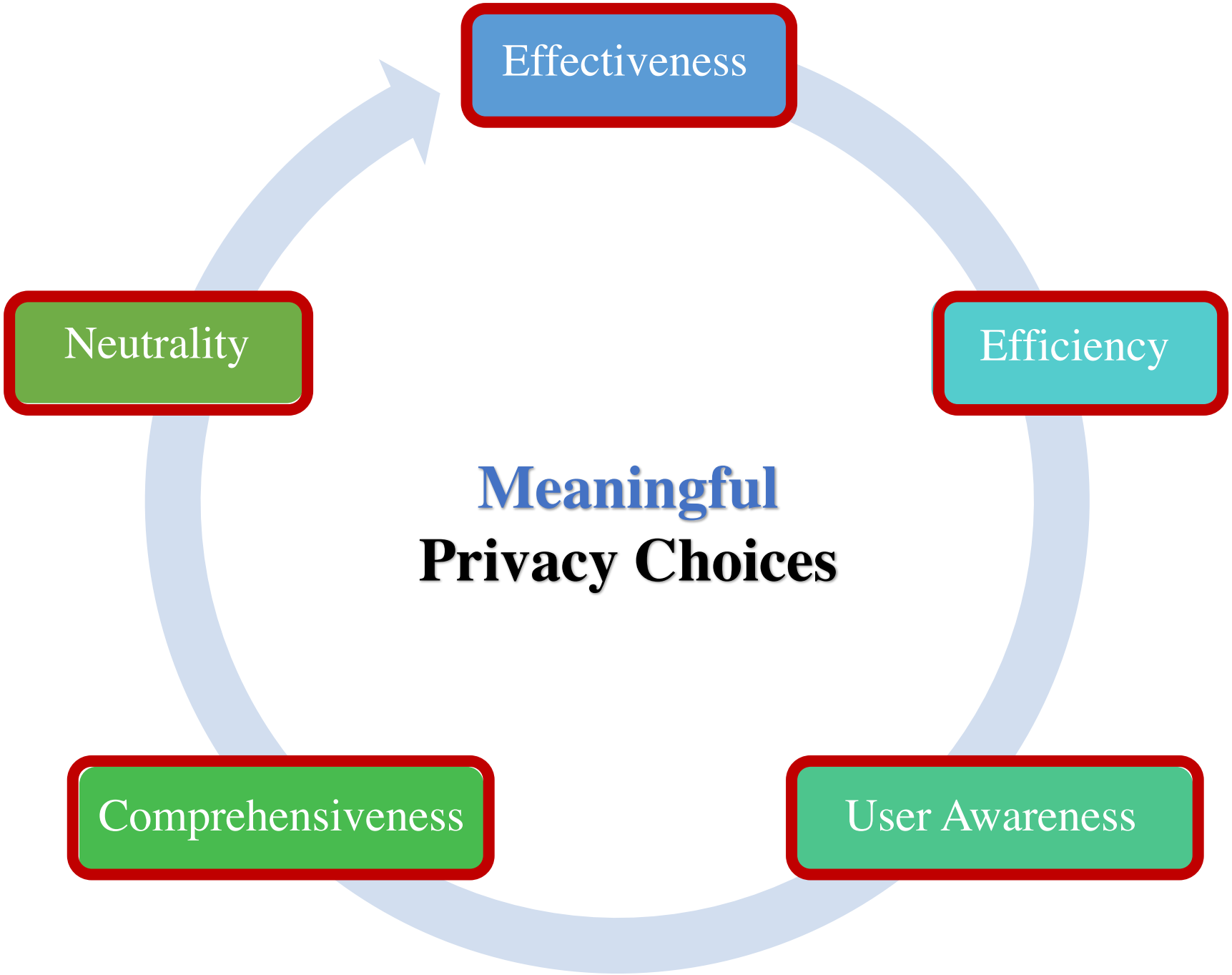


→ choice pre-selection

Lack of Guidance for Practitioners

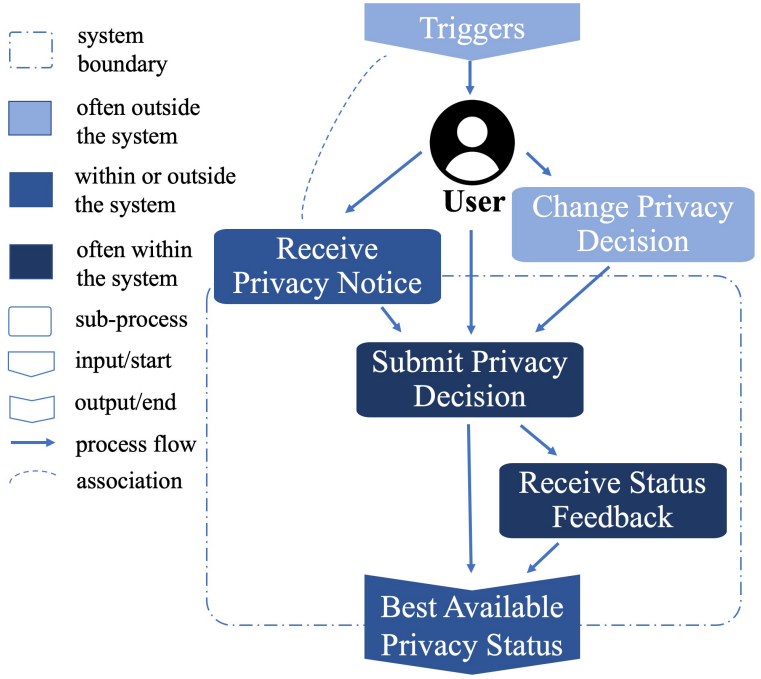
Privacy

Choices


Effectiveness
Efficiency
User Awareness
Comprehensiveness
Neutrality
Meaningful
Privacy Choices

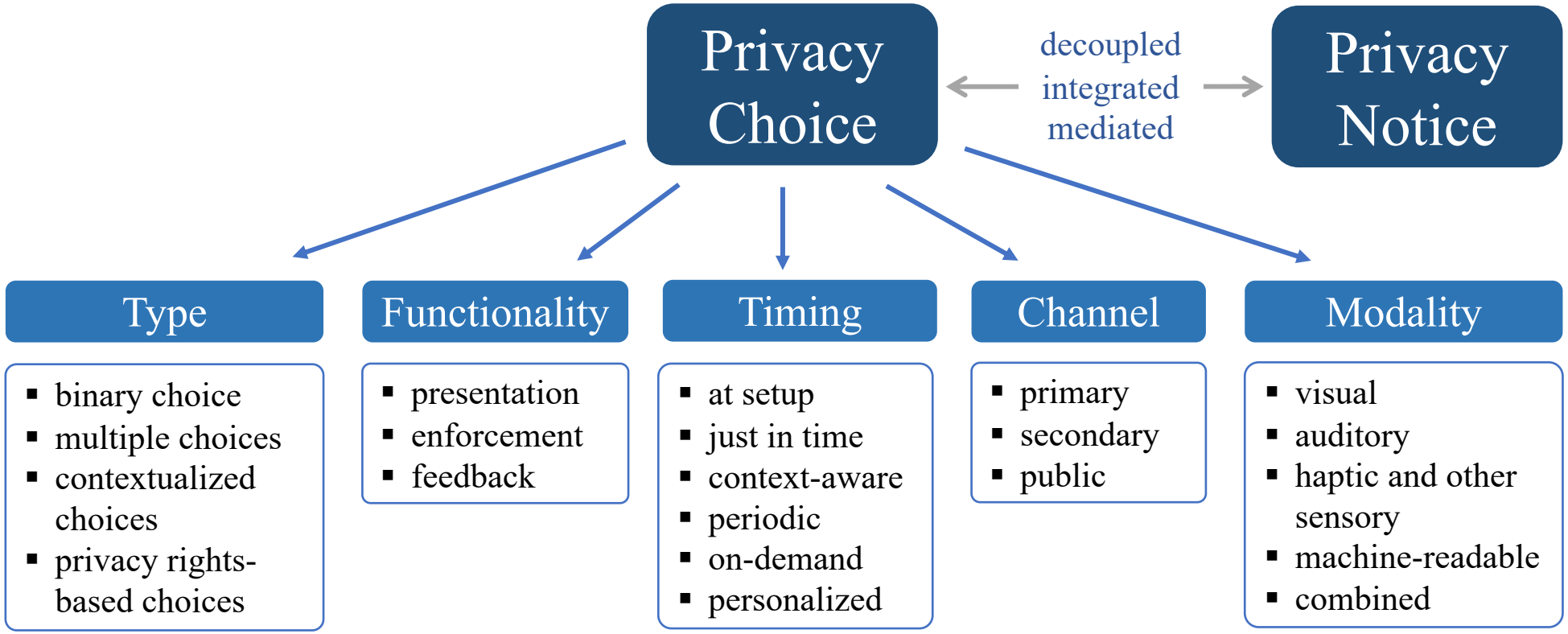
A Design Space for Privacy Choices

A technology review

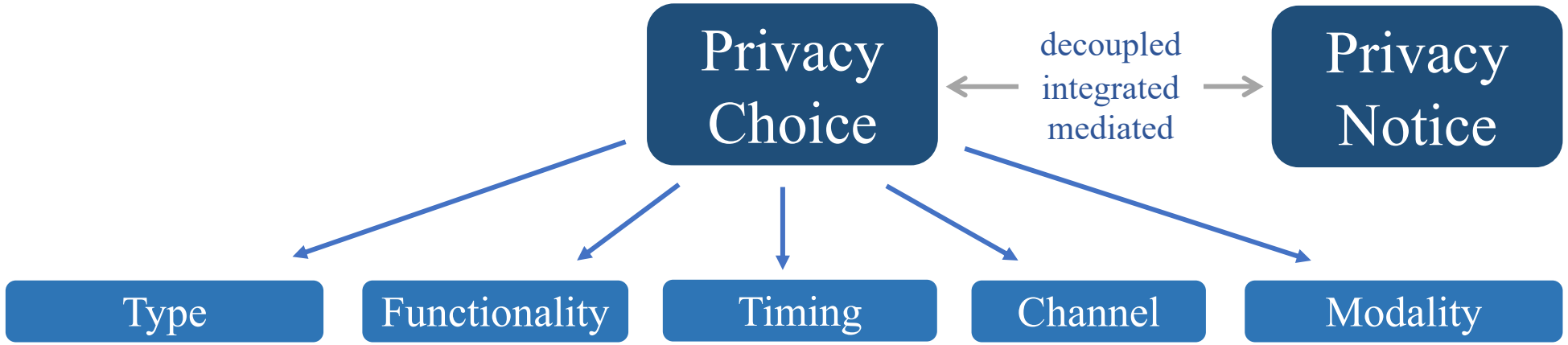


A user-centered analysis

A Design Space for Privacy Choices

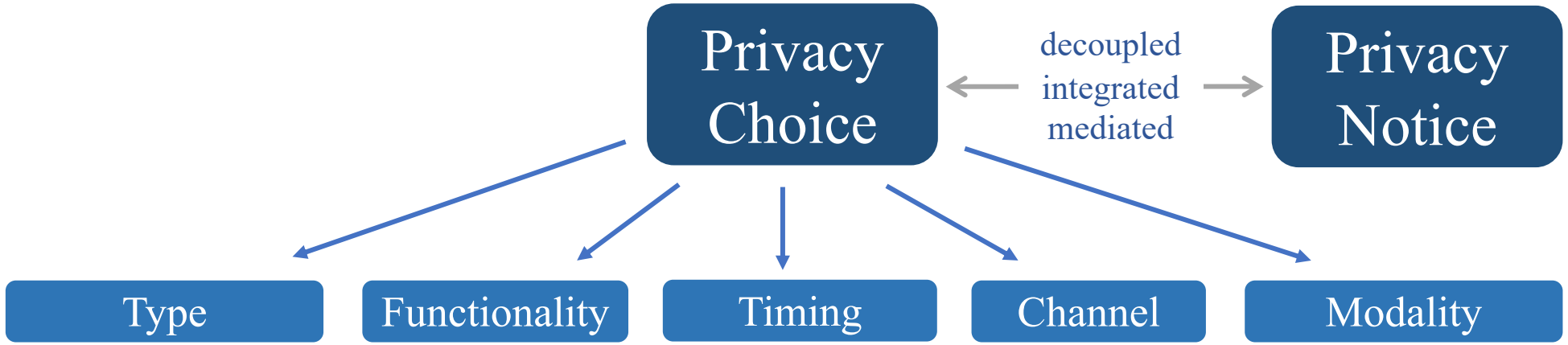


A Design Space for Privacy Choices



Use Case: Designing a ***privacy choice platform*** for deployed Internet of Things (IoT) - the **IoT Assistant** app

A Design Space for Privacy Choices



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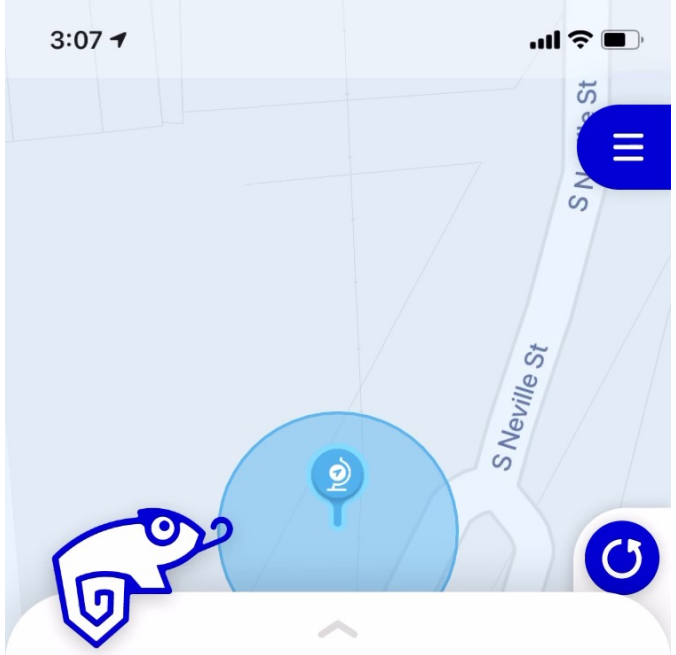


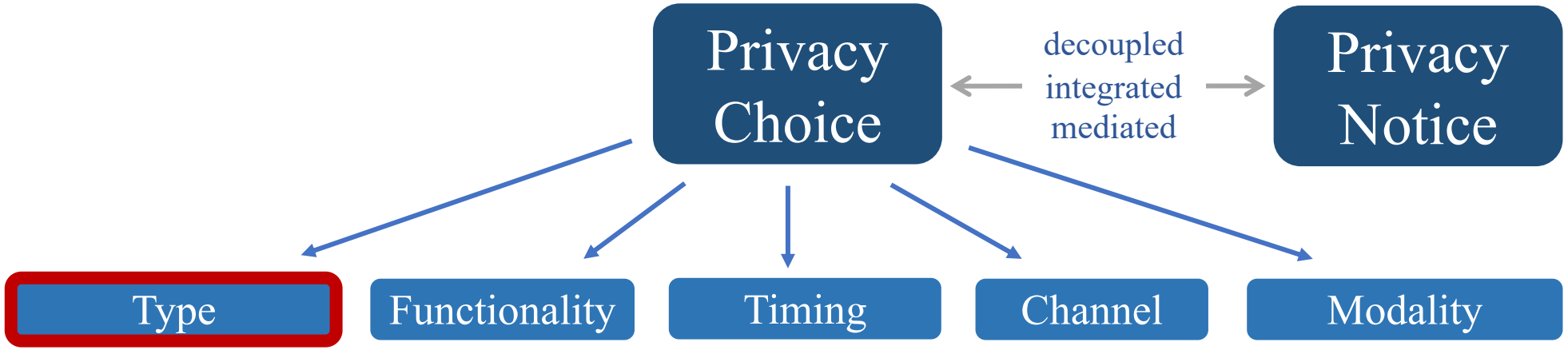
Go Back

Lab Location Tracking

Description

The Mobile Commerce Lab has a bluetooth beacon-based location tracking service for registered lab members. It can track if a lab member is in the lab room (TCS Hall 431) and share their location info with other lab members. Registered lab members can opt out of data collection or data sharing by this service.

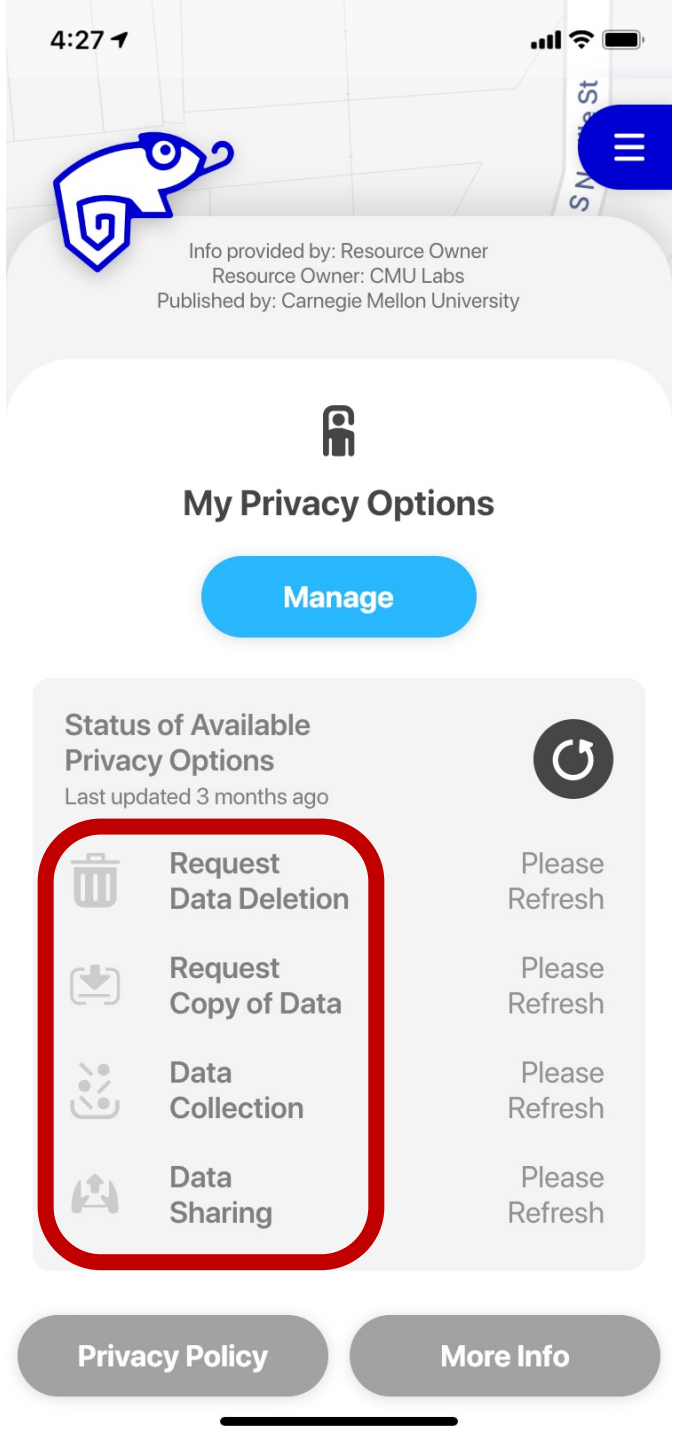
A Design Space for Privacy Choices



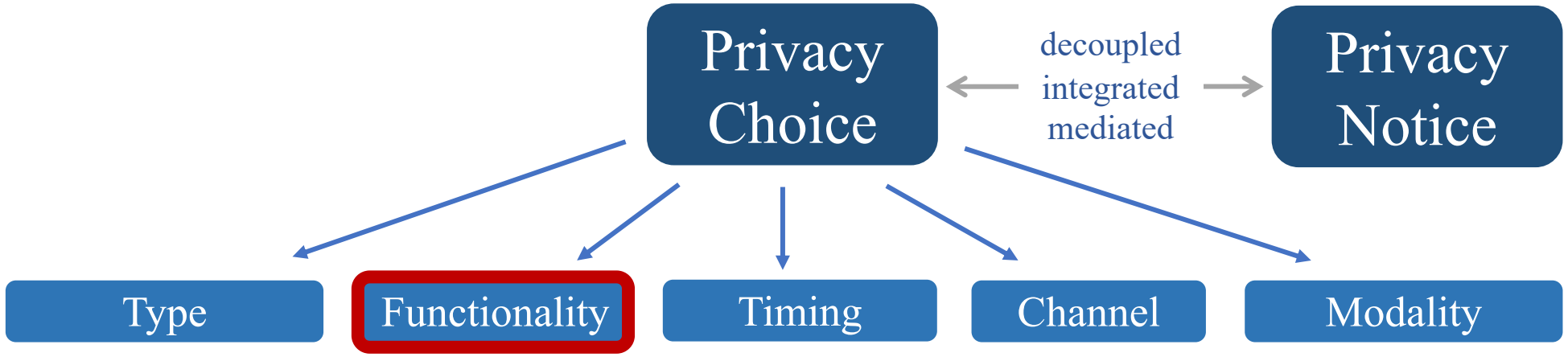
Use Case: Designing a ***privacy choice platform*** for deployed Internet of Things (IoT) - the **IoT Assistant** app

Type

- binary choice
- multiple choices
- contextualized choices
- privacy rights-based choices



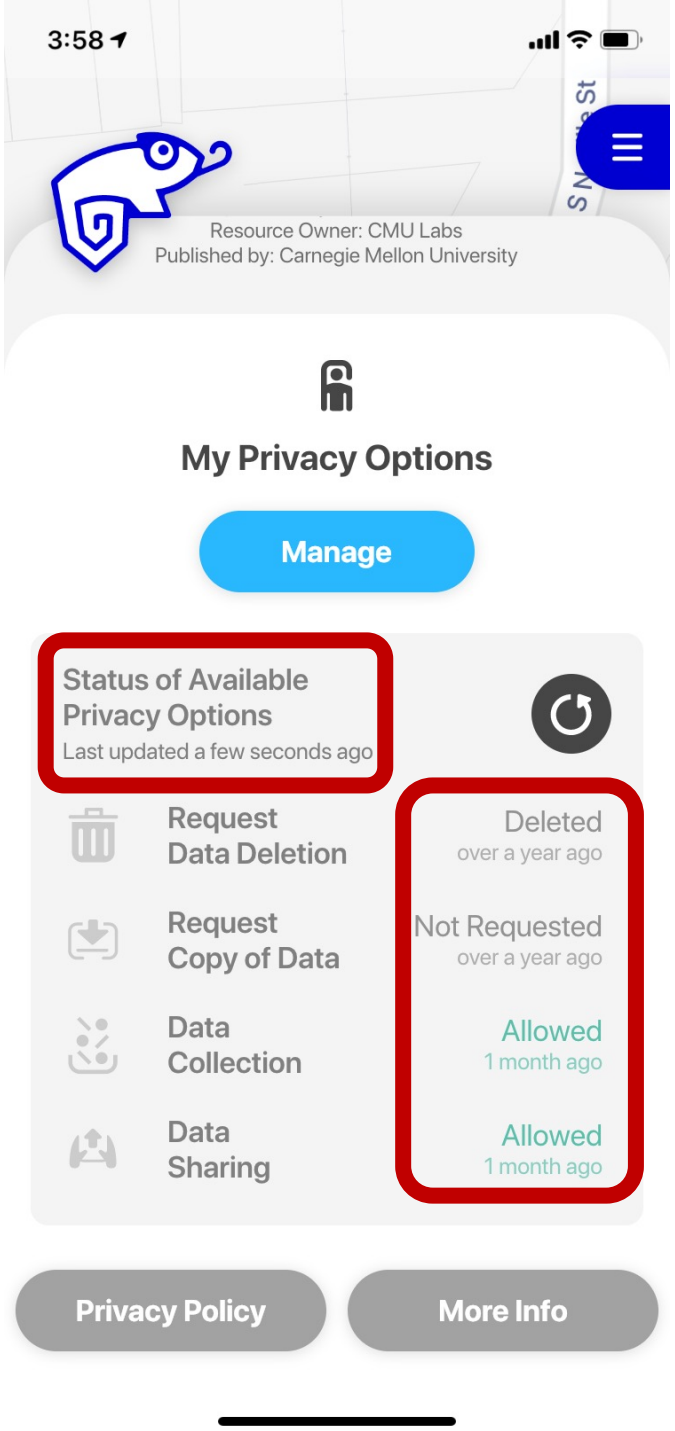
A Design Space for Privacy Choices



Use Case: Designing a ***privacy choice platform*** for deployed Internet of Things (IoT) - the **IoT Assistant** app.

Functionality

- Presentation (of privacy choices)
- Enforcement (of privacy decisions)
- Feedback (of privacy choice status)



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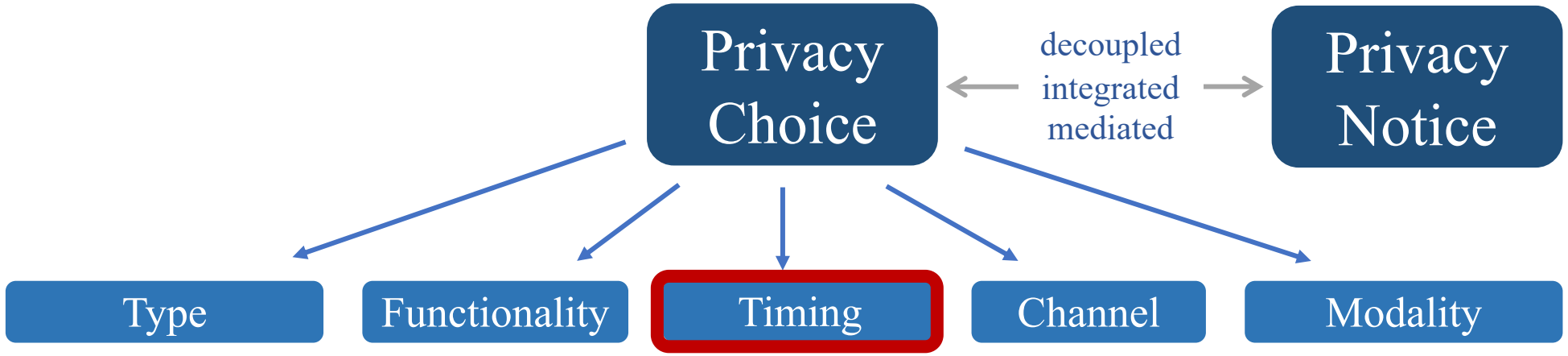
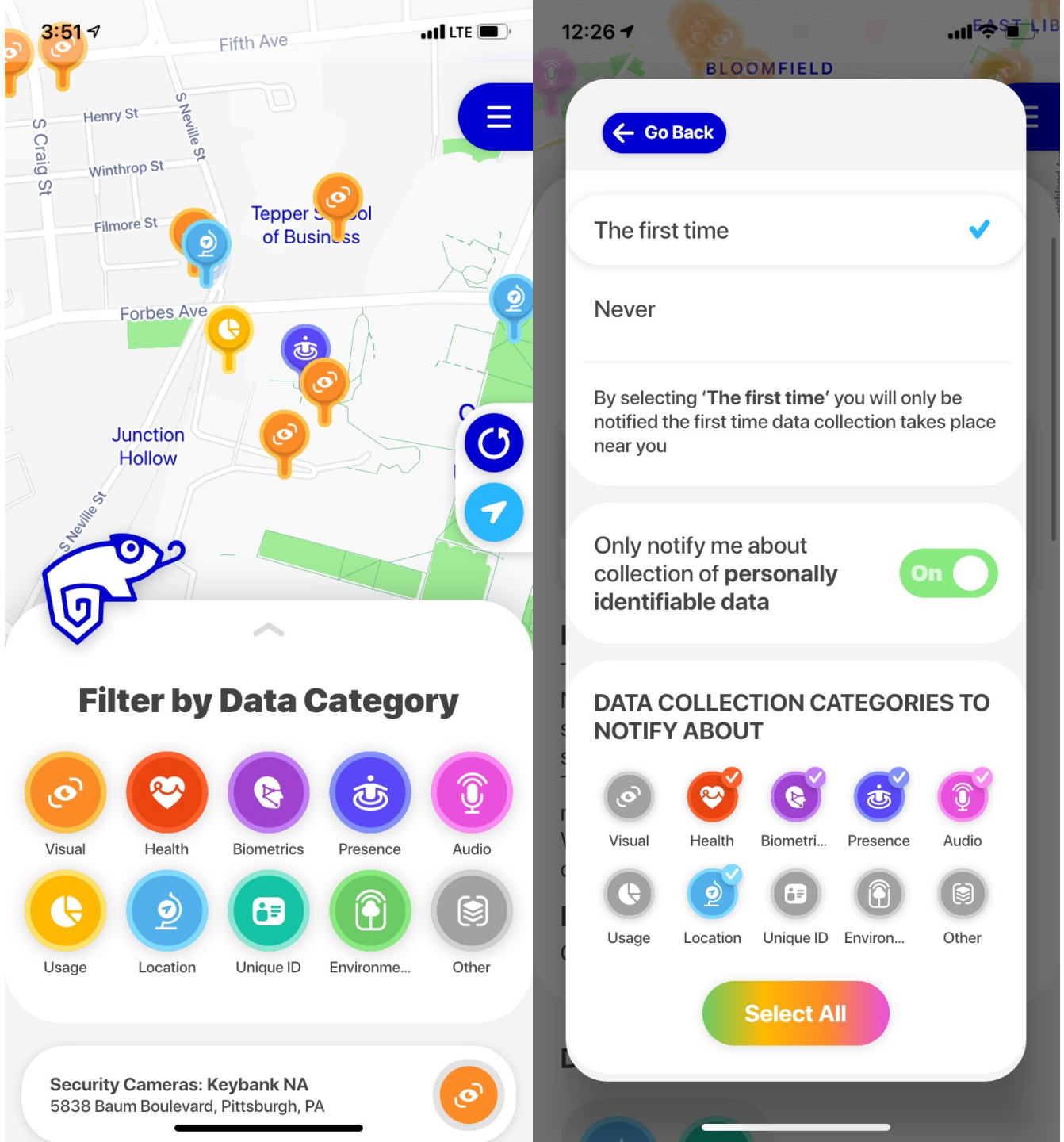


Use Case: Designing a ***privacy choice platform*** for deployed Internet of Things (IoT) - the **IoT Assistant** app

Timing

- at setup
- just in time
- context-aware
- periodic
- on-demand
- personalized



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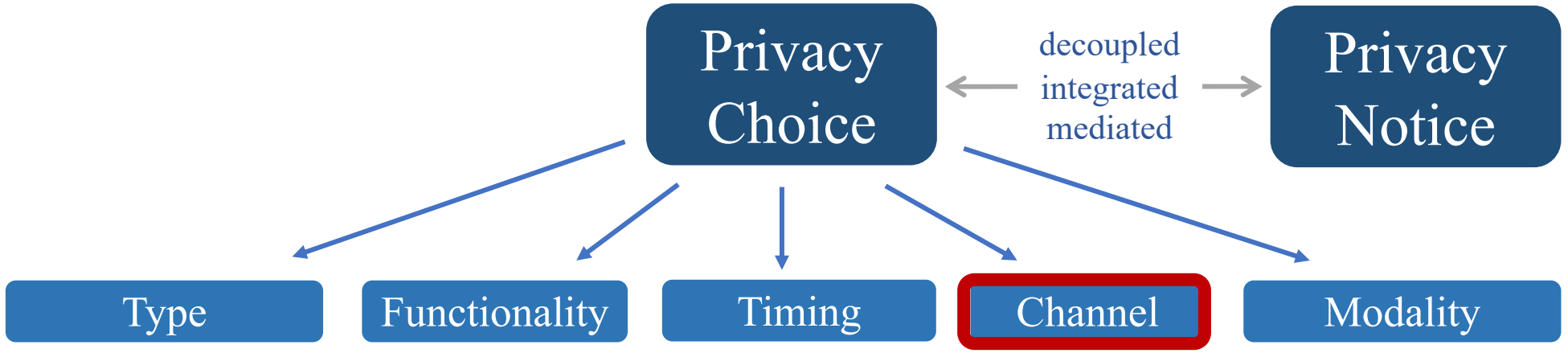
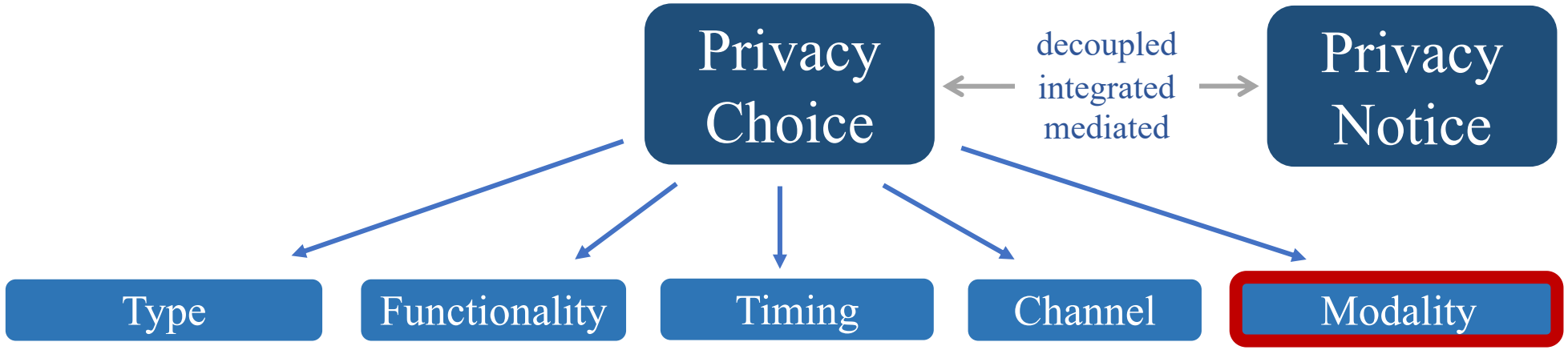


Use Case: Designing a ***privacy choice platform*** for deployed Internet of Things (IoT) - the **IoT Assistant** app

Channel

- Primary
- Secondary *(an app)*
- Public *(QR codes)*

A Design Space for Privacy Choices



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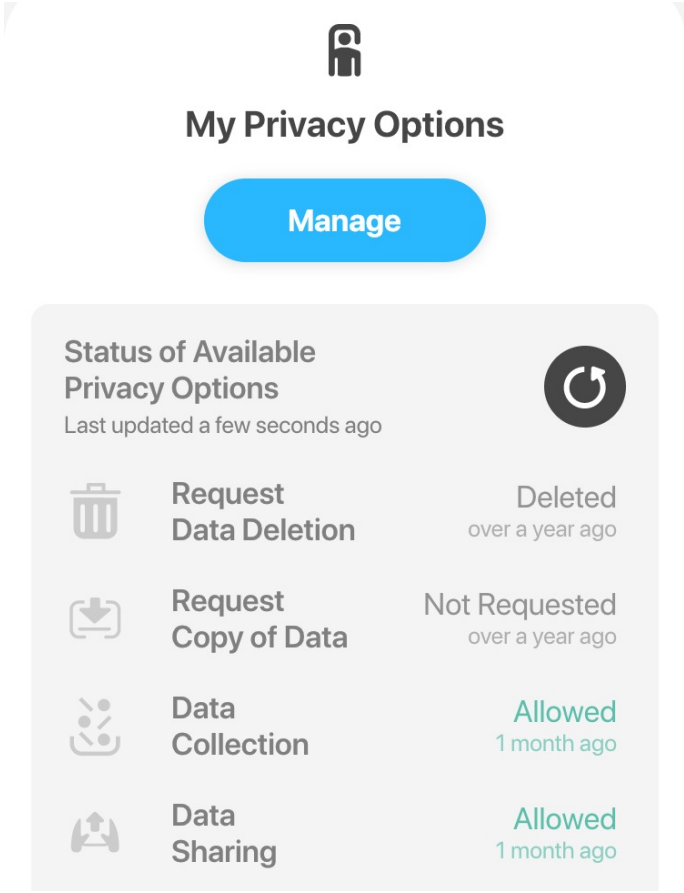
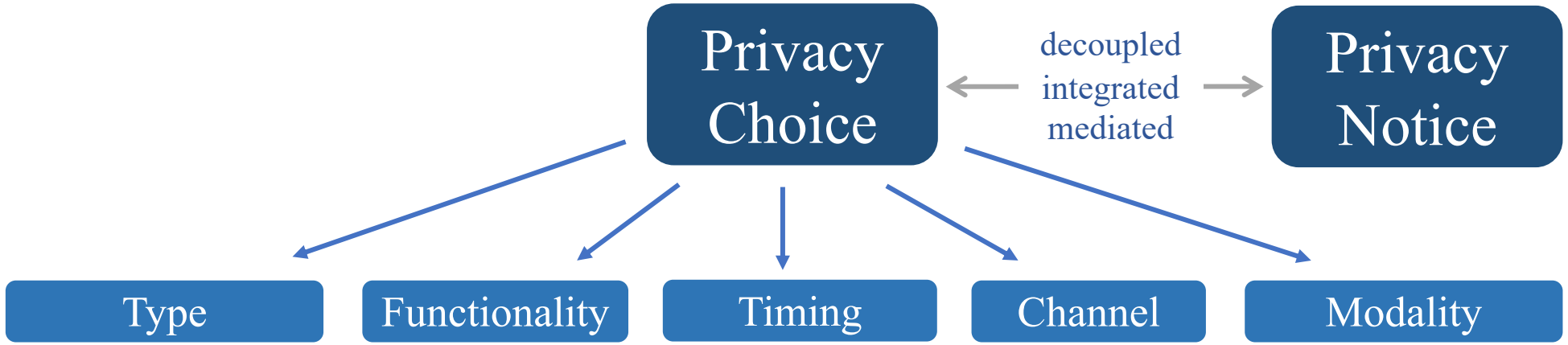
Modality

- Visual
- Auditory
- Haptic and other sensory
- Machine-readable
- **Combined**



VoiceOver & TalkBack

A Design Space for Privacy Choices



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Summary of Contributions

- A conceptual framework and a taxonomy for meaningful privacy choices
- A comprehensive guide to design meaningful privacy choices experiences for users

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