## How accurately can you identify me?

## Uncovering Perceived Identification Accuracy of In-Vehicle Biometric Sensing

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"Please group the cards into distinct



My face	sets by <b>now</b> accurately someone can identify you using only the feature stated on a card."		patterns
Myeyes			My hand sweat
My teeth	N = 11 (6f, 5m)		My facial
My voice			expressions
			My hand gestures
My handwriting	My media listening	My mouse	My walking style
My smell	mistory	movements	
Myears	My media watching history	My touches on a smartphone	ivly ariving style



## Why study this?

- **Biometric techniques** can make vehicles safer to drive (e.g., drowsiness detection), protect them against theft (e.g., authentication), provide higher cost efficiency (e.g., rewarding good driver profiles), or provide personalized in-car experiences (e.g., route personalization). Future / missed cards

**Closed card sorting website** 

- **Privacy-personalization paradox:** consumers who value information transparency are also less likely to participate in personalization.

→ Need for understanding trade-off of sharing personal biometric data for in-vehicle user benefits.

**RQ:** How well do users perceive their physical, behavioral and physiological features can personally identify them?



Analysis: Ward's hierarchical agglomerative clustering (k=6)

- My muscle movements
- My personality
- My eye gaze patterns
- My driving route
- My company in a vehicle
- My body temperature
- My eating style
- My saliva

$\leftarrow \rightarrow \mathbf{C} \uparrow 0$ Not Secure	http://anonymized.com/#task=SPVS	(KHsN 🔍 🛧		
Cards	Categories			
My face	Please group (by dragging and dropping) th 40 Cards on the left into the Categories			
My genetic makeup	could be identified by that card.	ld be identified by a computer using only card.		
My ears	Use the "Not applicat does not apply to you checkmark" on the bo done.	the "Not applicable" category if a card s not apply to you. Click the "green ckmark" on the bottom right when you a e.		
My eyes	1 - Very high accuracy	2 - High accuracy		
My fingerprints				
My walking style e.g., how I walk	3 - Moderate accuracy	4 - Low accuracy		
<b>My hands</b> e.g., shape, size	5 - Very low accuracy	Not applicable		
My smell				





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