# Experimentally prototyping towards a Digital Euro

Currently in our payment system, the usage of cash is declining and our card payments are dependent on American payment companies. For these reasons, the ECB is researching to issue a Digital Euro, a European payment system offered by a public institution, often explained as digital cash. I argue that instead of distinguishing itself on increased convenience or usability, Digital Euro rather provides indirect benefits, which have to align with people's values.

As a scope, this project investigates how to communicate the value of **privacy** in the Digital Euro during in-store payments. As an approach, first various tensions around (the perception of) privacy were mapped out, these were translated into speculative payment app designs and evaluated with consumers to elicit their values around privacy when paying.

### Three value tensions around privacy

Access D€ through a public party or Identifying towards a trusted intermediary or One standard of low information sharing or

commercial intermediary? full anonymity when paying? full freedom to share data for benefits?

### 1. The EU prototype

Let users build trust in privacy by providing a fully public, European payment app that urges users to follow its norms and shared goals for personal data sharing, creating a collective identity. Let users verify themselves as "part of the group" through DigiD.

**Paternalistic Community-building Normative** 

2. The cash-like prototype

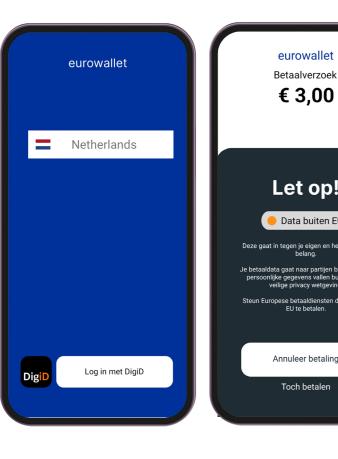
Let users build trust in privacy by giving them a simple offline payment method, secluded from third parties or settings that request attention, that conveys its locality and anonymity by copying many familiar characteristics from cash to mobile payments.

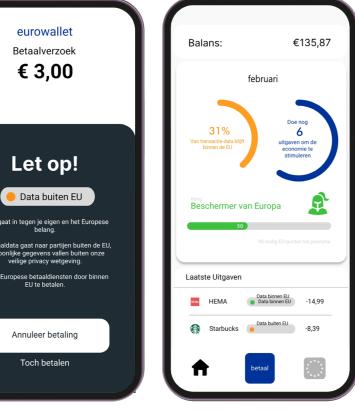
**Tangible** Simple Secluded

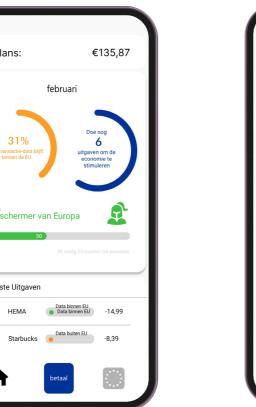
### 3. The configurable prototype

Let users build trust in privacy by giving them control over which personal data is shared with whom. The system facilitates this without judgment and approaches them as rational actors, providing them with choices, objective information, and options to contest.

Informing Rational **Precise** 







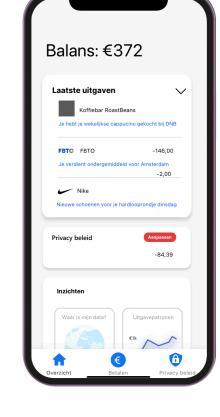












## Insights from the user research

Protected from own dissonance

Rationally weighing options

"I appreciate the warning, but I would still pay, I don't know why."

> "What makes Europe better per se than America?"

**Convenience and data sharing** for benefits

"I don't care whether Beijing knows that I'm getting a coffee" **Desiring symptoms of anonymity** 



"When I never have to log in I believe it's anonymous"



"I would like to have more influence on how I share my data, but that's just not the way things work..."

1. Values differed greatly among participants, with a main division between users valuing normative, long term values such as autonomy, privacy or safety and others valuing pragmatic values, direct benefit such as increased

convenience and financial gain.

2. Often, participants showed felt a lack of agency about data **sharing practices.** They expressed faulty mental models that their personal data flows freely between parties, that they already implied consent by engaging with a party earlier. This lead to indifference or a sort of cynic resignation.

3. Few participants were interested in anonymity, since most deemed the safety risk of losing local money not worth it. Those who did desired it as seclusion from financial institutions.

4. People's values are not static, but rather conflict, change over time, or are not enacted through usage. Some respondents were aware of this and longed for an environment that allowed this dissonance or one where the user could sit down for reflection.

5. Rather than preferring a public or private party, participants relied on trust

to make a judgment about intermediaries. Based on familiarity, they tended to engage with their own bank, and avoid unknown parties such as the ECB. Based on reputations, they labeled Big Tech as "unethical"

Joost van Baar Experimentally prototyping towards a Digital Euro 25 April 2025 MSc Design for Interaction

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