

Balancing Privacy and Data Utilization

A Comparative Vignette Study on User Acceptance
of Data Trustees in Germany and the US

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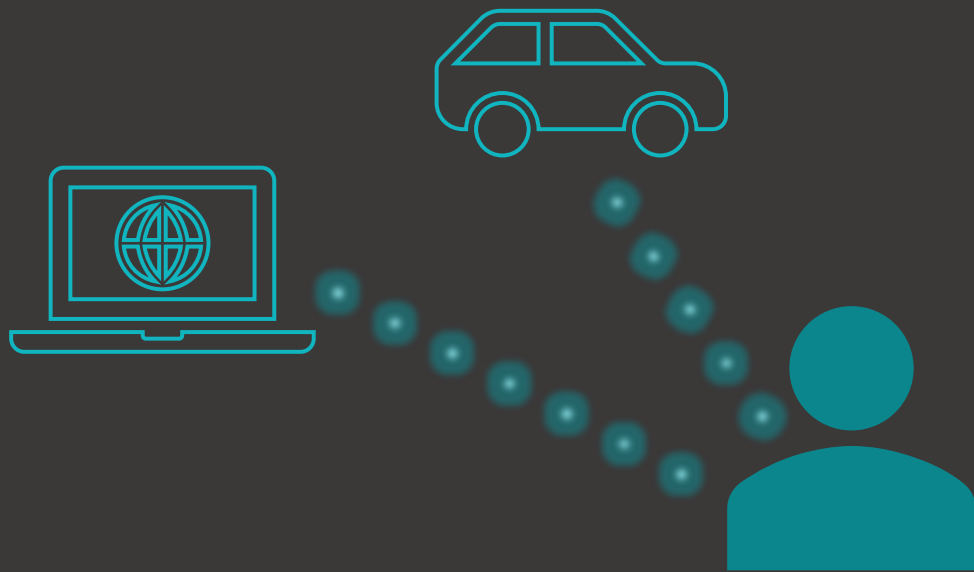
Hanna Püschel
TU Dortmund

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TU Dortmund

Oliver D. Reithmaier
Leibniz University Hannover













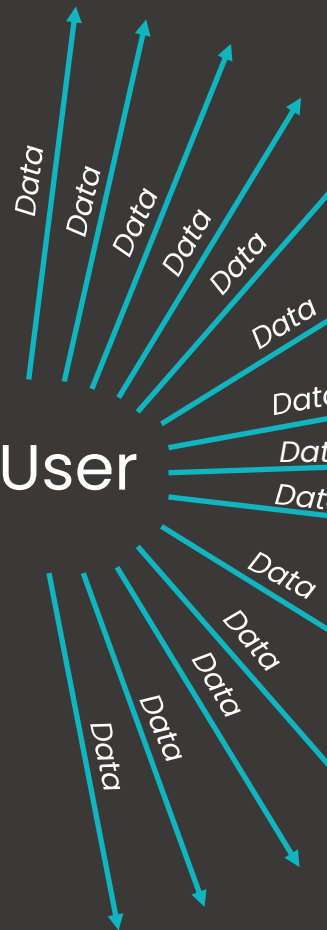
Data Subject
(*You*)



Data Subject
(You)

Data

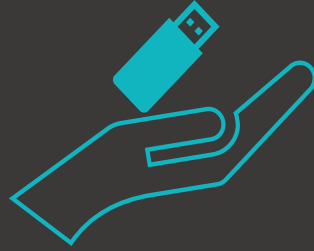
Data User



Data Subject
(You)

Data User

Data Trustee



Data Subject
(*You*)

Data User

Data Trustee

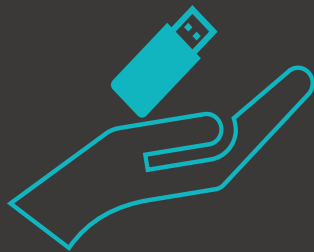


Data Subject
(*You*)



Data User

Data Trustee



Data

Some Data

Data Subject
(You)

Data User

Data Trustee



Data

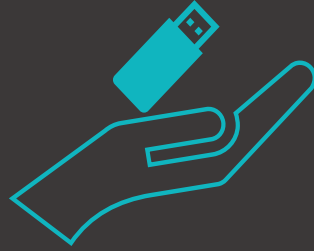
Some Data

Data Subject
(You)

Data User

- **European Legislation (DGA)**
- **CCPA**

Data Trustee



Data Subject
(*You*)

Data User

Data Trustee



Data Subject
(*You*)

Data User

**User
Acceptance**

METHOD

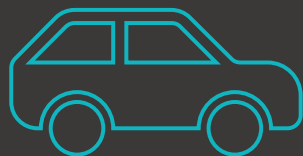


METHOD

- Germany & USA
- N = 1800
- Vignette Study



MEDICAL



CAR



IOT



ONLINE



VIGNETTE STUDIES



VIGNETTE STUDIES

The medical data is stored to provide access to research institutions.

VIGNETTE STUDIES

Data Type

The **medical data** is stored to provide access to research institutions.

VIGNETTE STUDIES

Data Type

Processing

The **medical data** is **stored** to provide access to research institutions.

VIGNETTE STUDIES

The ^{Data Type} **medical data** is ^{Processing} **stored** to provide
access to ^{Recipient} **research institutions.**

VIGNETTE STUDIES

Data Type Processing
The **medical data** is **stored** to provide
access to **the government.**
 Recipient

VIGNETTE STUDIES

Data Type

Processing

The automotive data is stored to provide
access to the government.
Recipient

VIGNETTES



A rectangular box containing two sets of horizontal lines for writing, representing a template for vignettes. Each set consists of a short line followed by four longer lines, totaling eight lines for each set.

VIGNETTES

Scenario Description

A rectangular box containing two sets of horizontal lines for text entry. The top set consists of four lines, and the bottom set consists of eight lines, all in a light gray color.

VIGNETTES

Scenario Description



Data Trustee Description

A large rectangular box with a thin white border contains two sets of horizontal lines for text input. The top set consists of four lines, and the bottom set consists of eight lines, providing a structured area for writing the vignettes.

VIGNETTES

Scenario Description



MEDICAL



CAR



IOT



ONLINE

VIGNETTES

Scenario Description



Data Trustee Description



FACTORS

Operator



Anonymity



Processing



Storage



Recipient



Access



Benefits



Monitoring



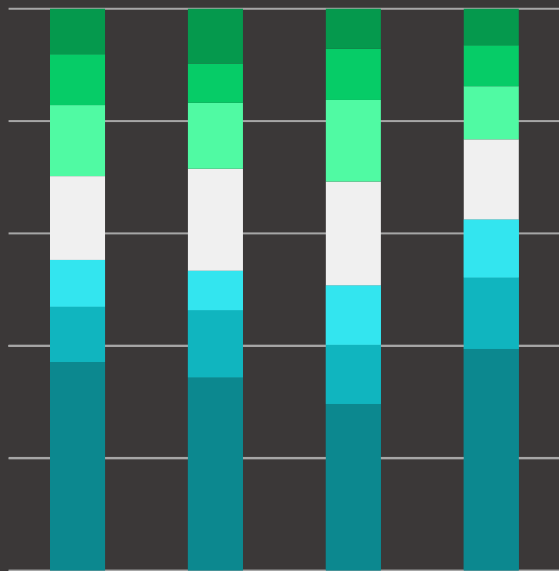
RESULTS



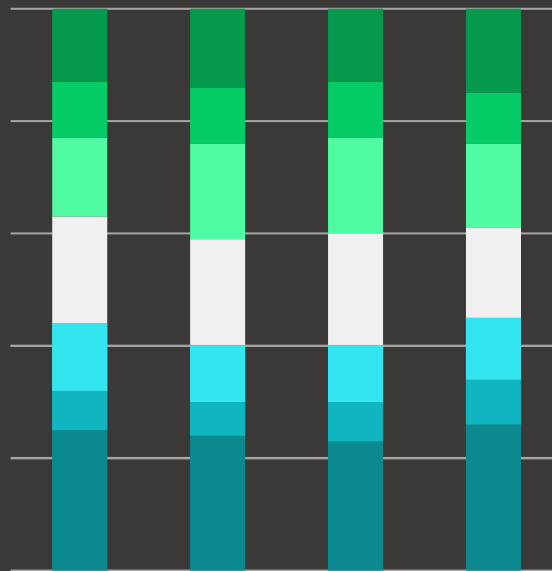
How likely would you **use** the Data Trustee?

How likely would you use the Data Trustee?

Germany



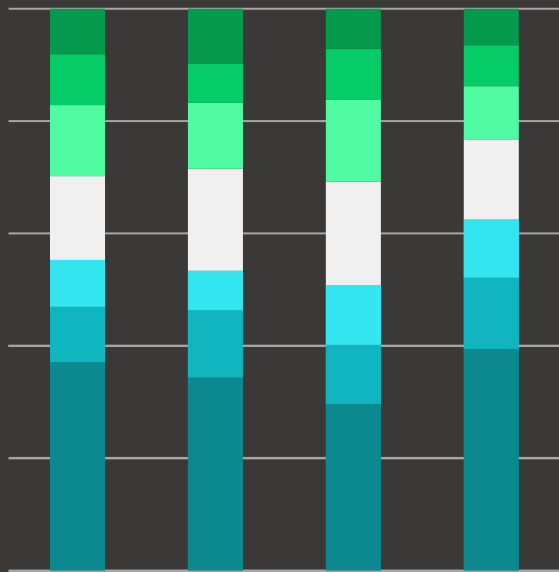
USA



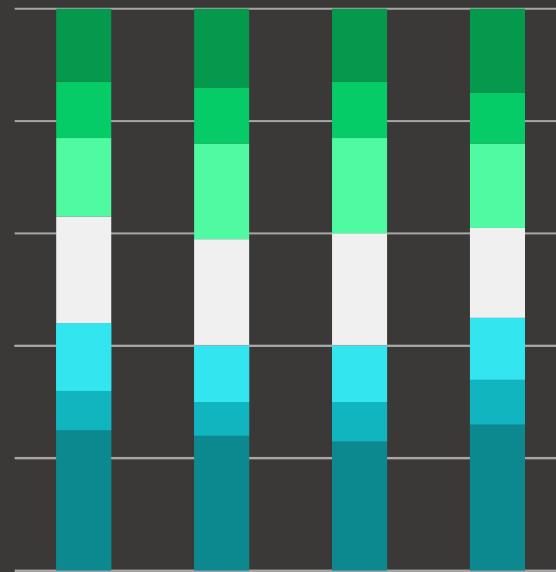
How likely would you use the Data Trustee?

Germany

Very likely

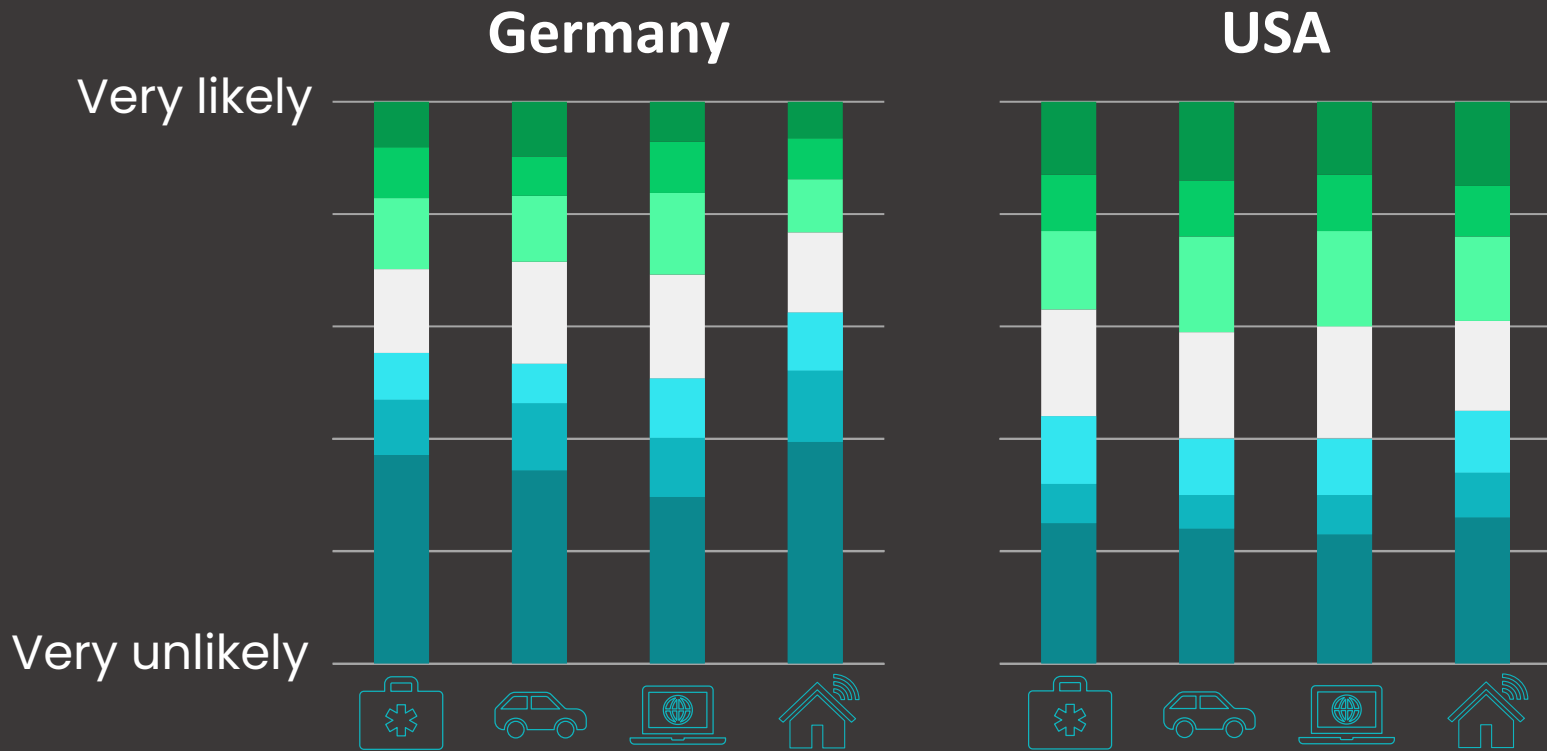


USA



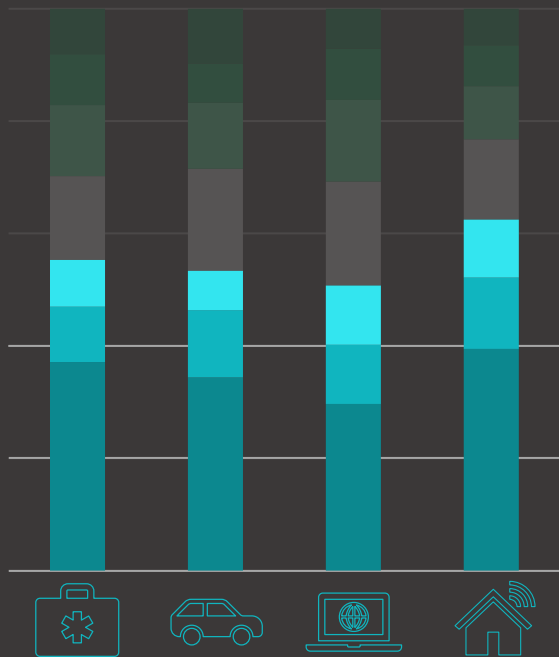
Very unlikely

How likely would you use the Data Trustee?

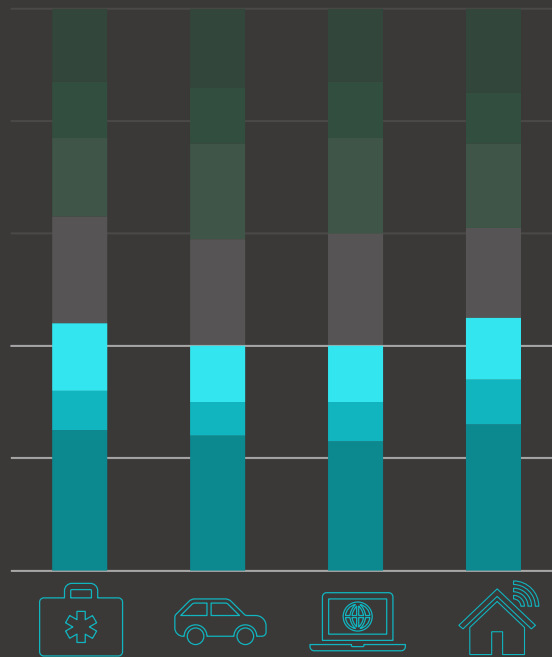


How likely would you use the Data Trustee?

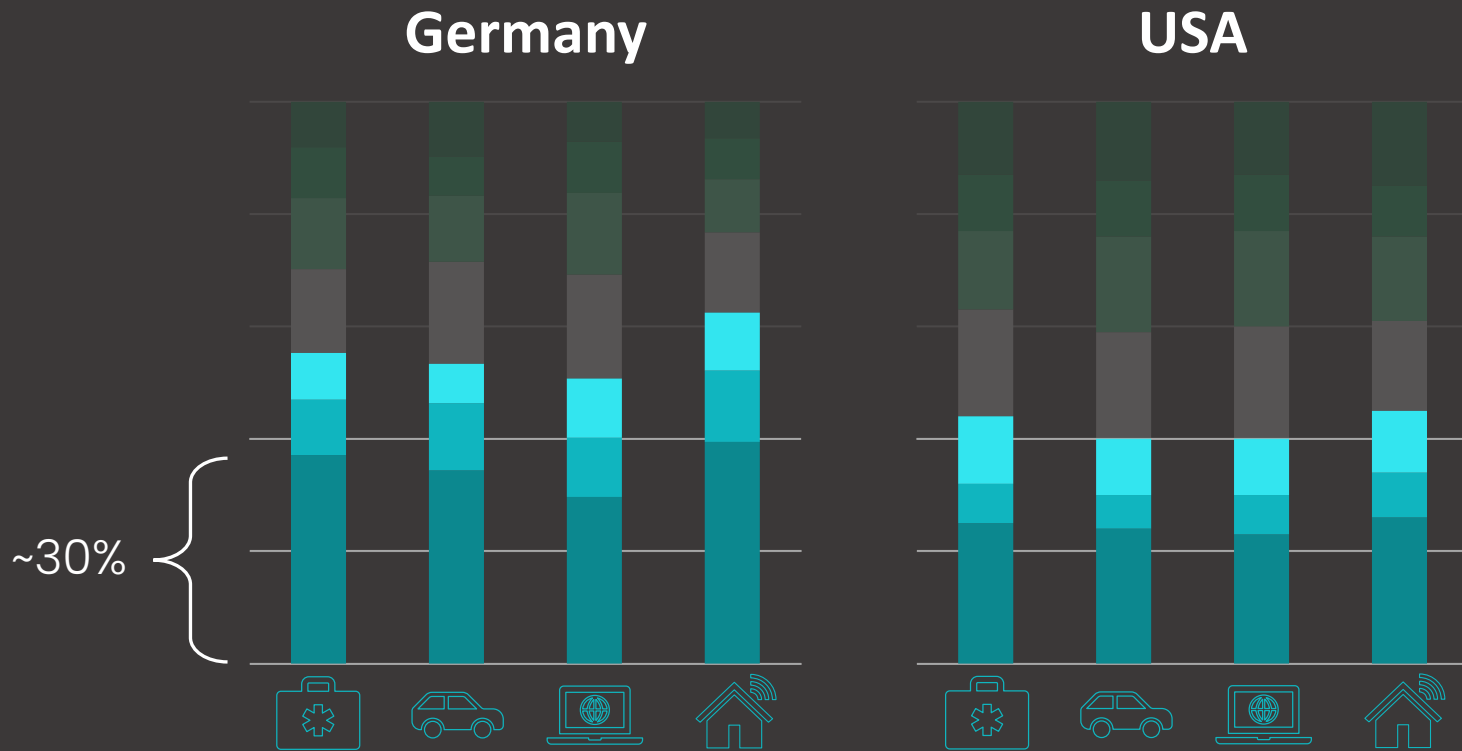
Germany



USA

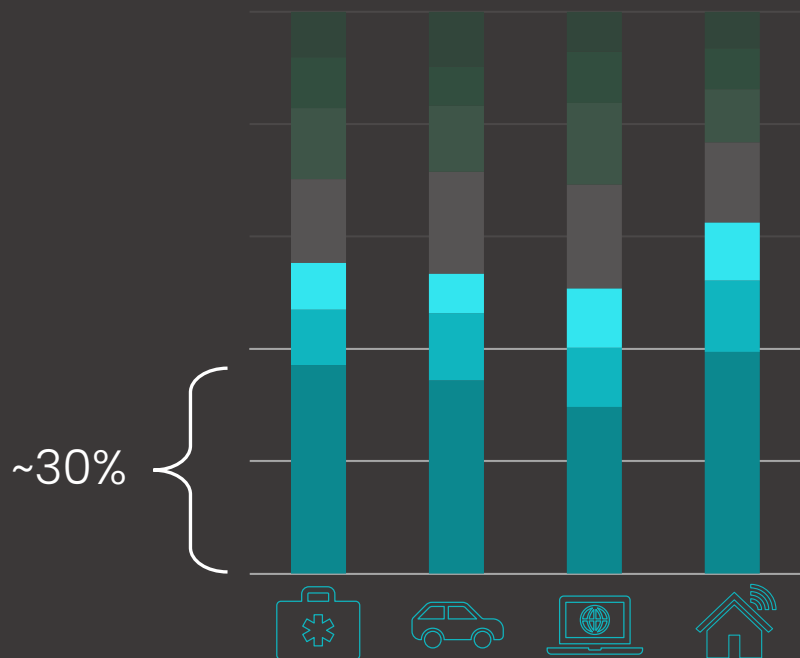


How likely would you use the Data Trustee?

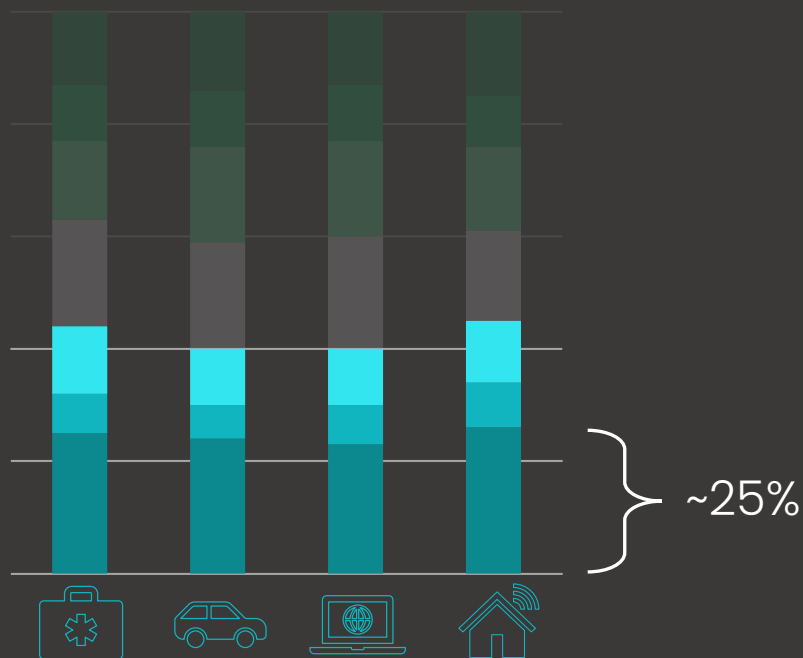


How likely would you use the Data Trustee?

Germany

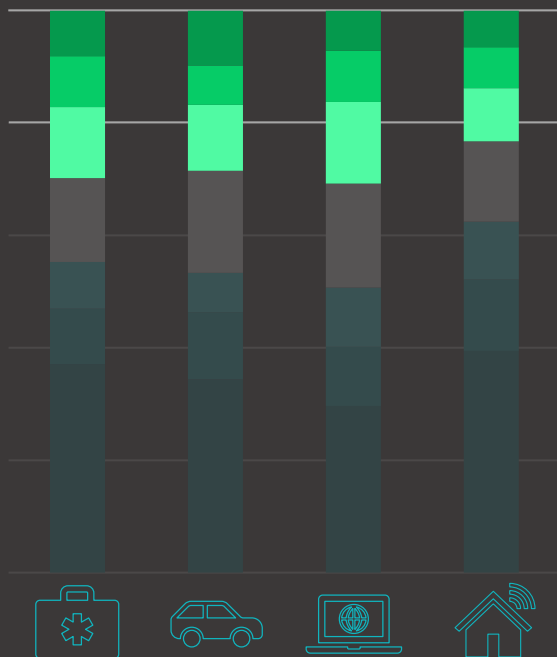


USA

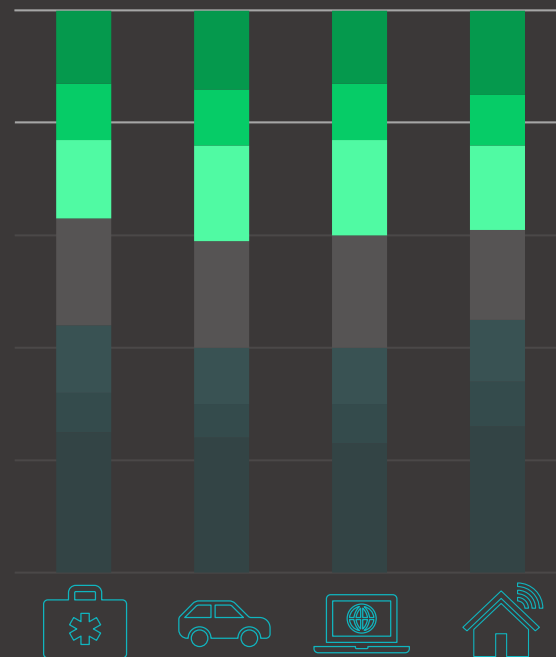


How likely would you use the Data Trustee?

Germany

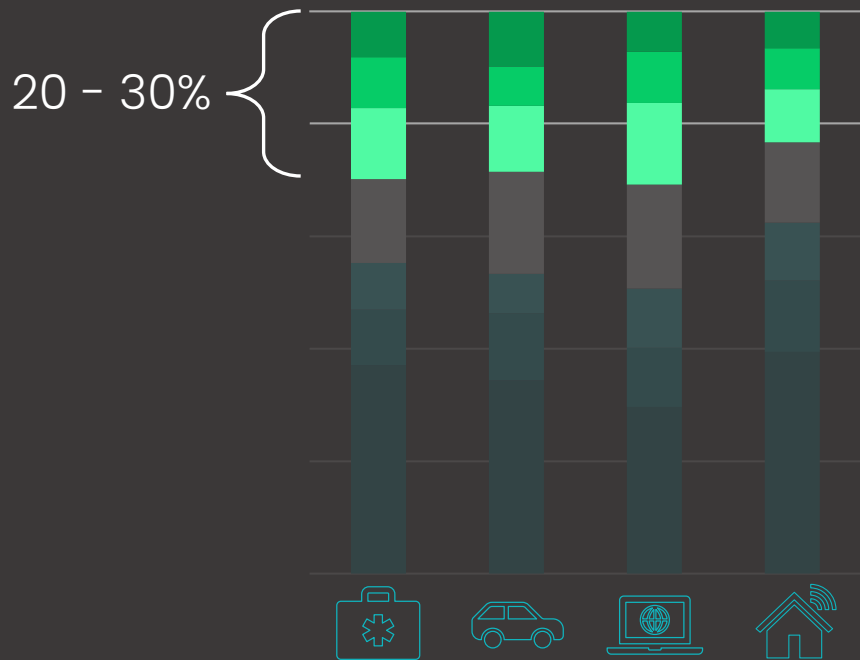


USA

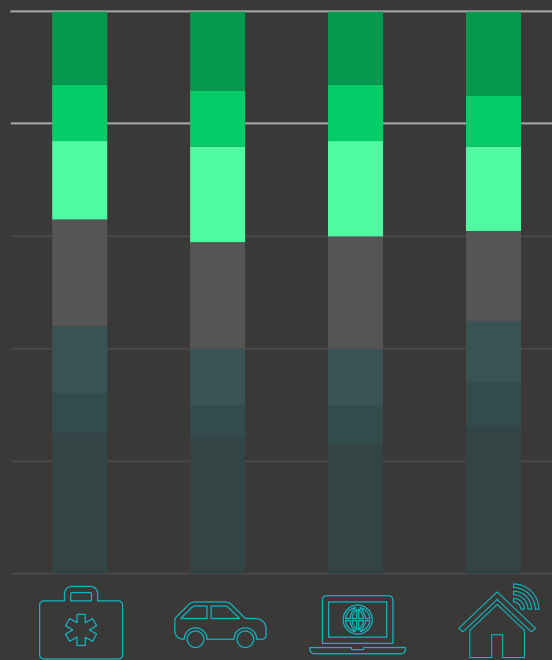


How likely would you use the Data Trustee?

Germany

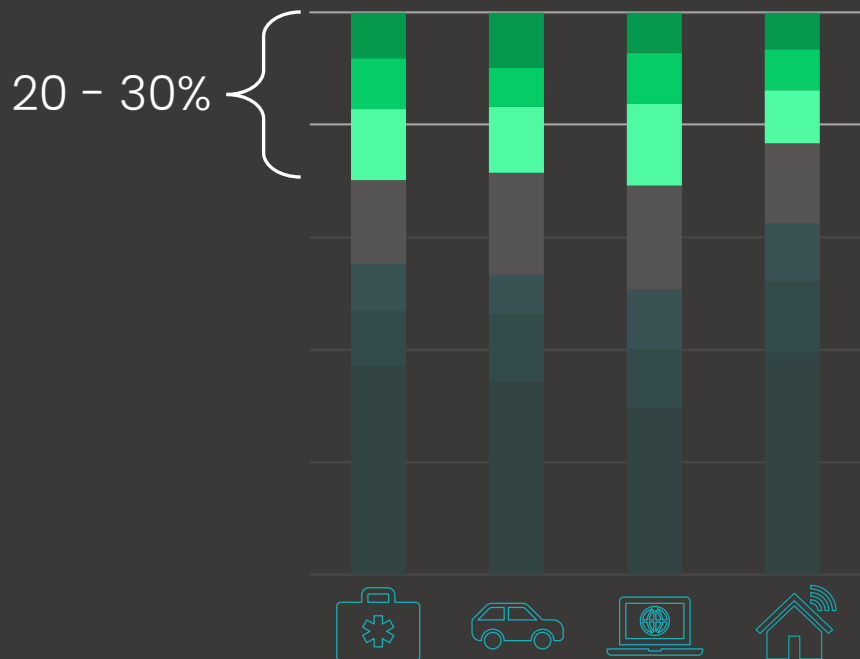


USA

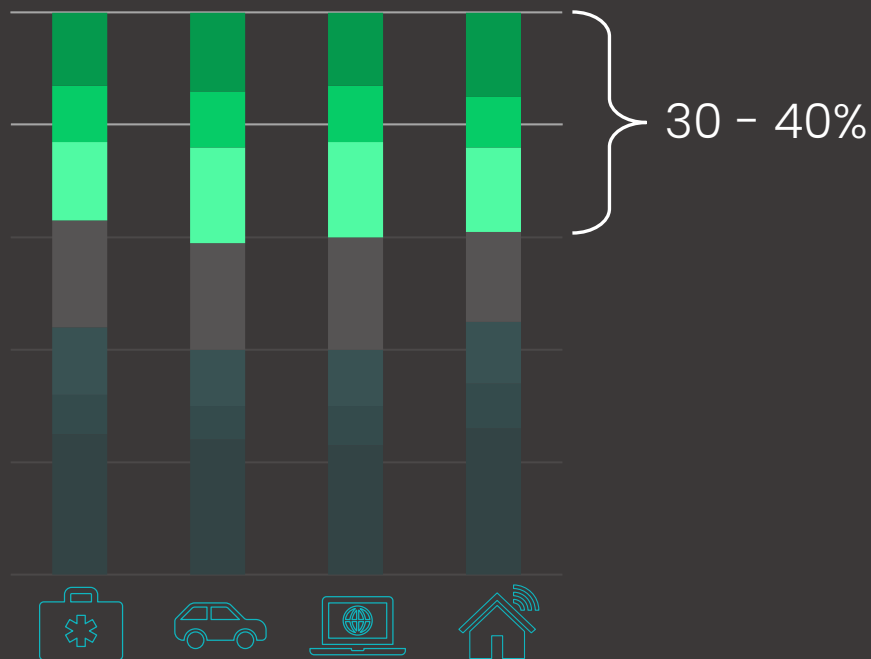


How likely would you use the Data Trustee?

Germany



USA



What **factors influenced** the **acceptance**?

What **factors** influenced the **acceptance**?

Operator



Anonymity



Processing



Storage



Recipient



Access



Benefits



Monitoring



What **factors** influenced the **acceptance**?

Operator



Anonymity



Processing



Storage



Recipient



Access



Benefits



Monitoring



How anonymous is the transmitted data?



Anonymity



How anonymous is the transmitted data?

Raw data | Anonymized data | Non-personal data



Anonymity





How anonymous is the transmitted data?

Raw data | Anonymized data | Non-personal data

Germany



Significantly **higher** agreement for
anonymized & **non-personal** data





How anonymous is the transmitted data?

Raw data | Anonymized data | Non-personal data

Germany



Significantly **higher** agreement for **anonymized** & **non-personal** data

USA



Significantly **higher** agreement for **anonymized** data





Recipient

Who can access the data?





Recipient

Who can access the data?

Research | Businesses | "Everyone" | Law enforcement





Recipient

Who can access the data?

Research | Businesses | "Everyone" | Law enforcement

Germany



Significantly **lower** acceptance
for access by **law enforcement**





Recipient

Who can access the data?

Research | Businesses | "Everyone" | Law enforcement

Germany



Significantly **lower** acceptance
for access by **law enforcement**



Significantly **lower** acceptance
for access by **everyone**

USA



Significantly **lower** acceptance
for access by **everyone**





Benefits

Which benefits convince?





Benefits

Which benefits convince?

None | Monetary | Personal





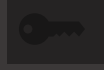
Which benefits convince?

None | Monetary | Personal

Germany



Significantly **higher** acceptance
with **monetary & personal** benefits





Which benefits convince?

None | Monetary | Personal

Germany



Significantly **higher** acceptance
with **monetary & personal** benefits

USA



Significantly **higher** acceptance
with **monetary** benefits



Operator



Storage



Access



Monitoring



No Influence



Germany

USA

Germany

1. Privacy Protection

USA

Germany

1. Privacy Protection

USA

1. Personal Benefits

Germany

1. Privacy Protection
2. User Anonymity

USA

1. Personal Benefits

Germany

1. Privacy Protection
2. User Anonymity

USA

1. Personal Benefits
2. Purpose

Germany

1. Privacy Protection
2. User Anonymity
3. Personal Benefits

USA

1. Personal Benefits
2. Purpose

Germany

1. Privacy Protection
2. User Anonymity
3. Personal Benefits

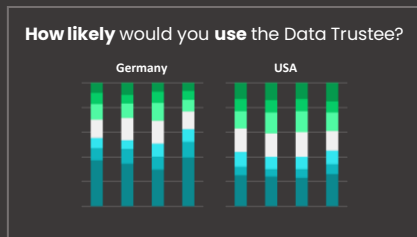
USA

1. Personal Benefits
2. Purpose
3. Privacy Protection



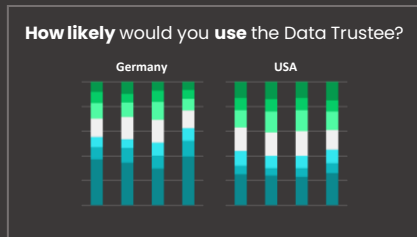
Summary

Summary

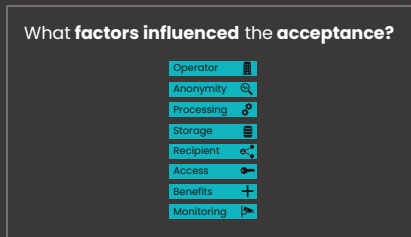


- Acceptance rather low
- US more open to idea

Summary

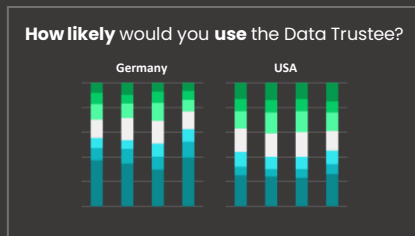


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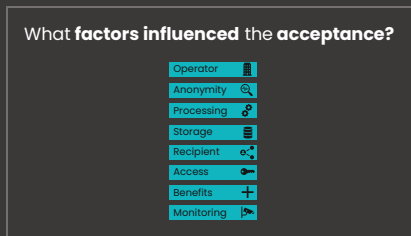


- Focus on Anonymity, Recipient, & Benefits
- Operator, Monitoring, & Storage are less crucial

Summary



- Acceptance rather low
- US more open to idea



- Focus on Anonymity, Recipient, & Benefits
- Operator, Monitoring, & Storage are less crucial

Germany	USA
1. Privacy Protection	1. Personal Benefits
2. User Anonymity	2. Purpose
3. Personal Benefits	3. Privacy Protection

- US focused on benefits, Germany on privacy

Summary

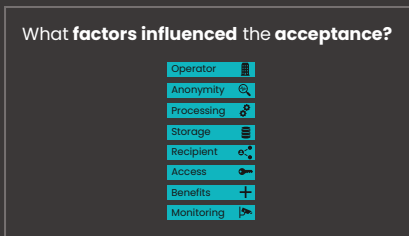
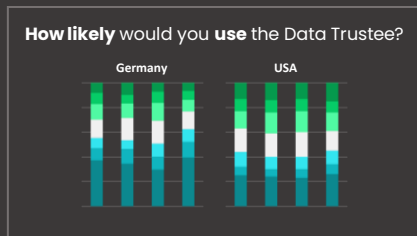
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markus.duermuth@itsec.uni-hannover.de | Markus Dürmuth



Germany	USA
1. Privacy Protection	1. Personal Benefits
2. User Anonymity	2. Purpose
3. Personal Benefits	3. Privacy Protection

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