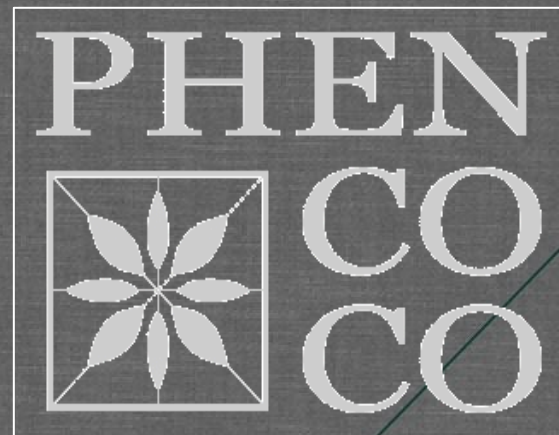


Welcome to  
PHENOMENOLOGY \* COGNITION \* COMPUTATION



# Digital self determination & personal identity



# Digital self determination & personal identity



## Content:

Part I: digital self-determination as research object  
Personal identity & digital identity  
Identity data Management

Part II: Complexity issues: perspectives  
Different users  
Reasons buried in tech talk

Part III: decentralisation vs. data cockpit

# digital self-determination as research object

A large graphic consisting of three concentric, broken circles in shades of blue and white, centered on a dark blue background that transitions to white at the bottom.

   **ceres**  
cologne center for  
ethics, rights, economics, and social sciences  
of health

# digital self-determination as research object

1. With which existing theoretical concept can
  - a) digital self-determination be precisely conceptualized?
  - b) Empirical evidence systematically located in relation to their meaning for digital self-determination?
2. What is the attitude of internet users towards their digital self-determination?

# digital self-determination as research object



- includes a look at connected linguistic instances like
  - "self"
  - "autonomy"
  - "identity"

which converge in the notion of "personal identity" and are of interest, when talking about self-determination in general.

- digital self-determination is conceptualized via general concept of self determination:
  - the former is in some sense a use case, or a specific version of the latter
  - everything that goes for the general, goes for the specific

# digital self-determination as research object



# digital self-determination as research object



A well thought out concept of digital self-determination  
Enables the forming of empirical preconditions (hypothetically)  
about the presumptions

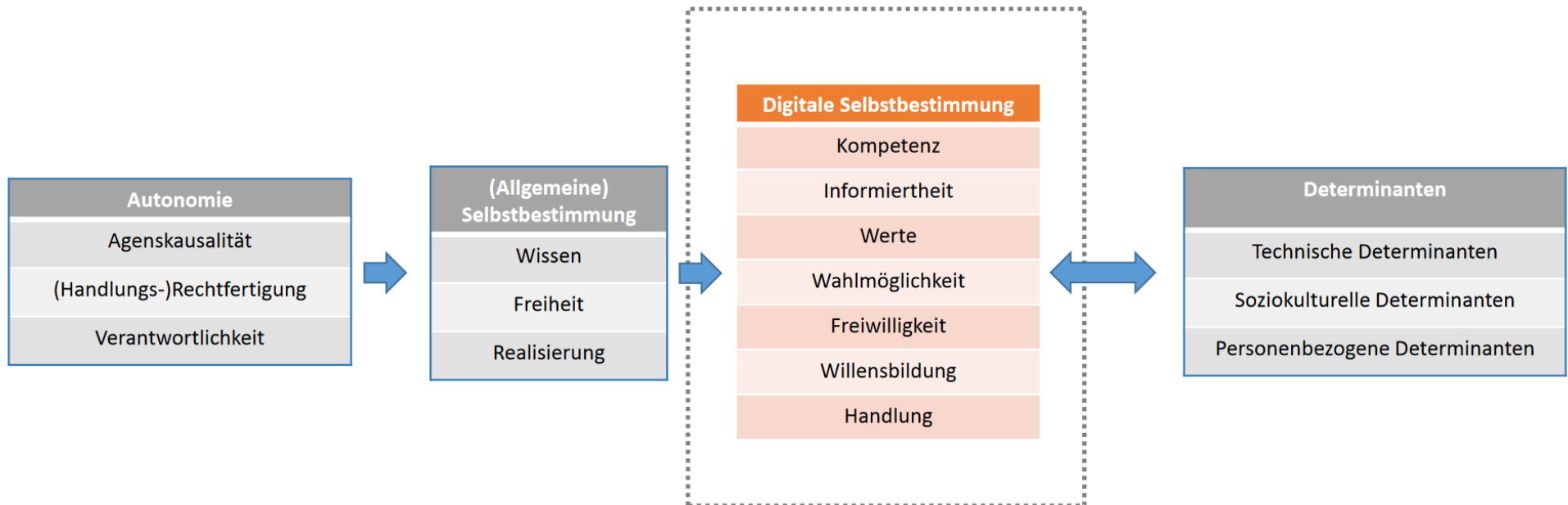
which are entailed in the conceptual components.

It also allows for an assignment of causally effective direct and  
indirect factors.



# digital self-determination as research object

Abbildung 1: Rahmenkonzept der Digitalen Selbstbestimmung



# digital self-determination as research object



## Outcomes:

- No unified notion of digital self-determination
- Single analysis are useful and interesting
- → but there is a danger of losing sight of it as
  - unified research object,
  - well as ethical, legal and politically desirable aim

## Definiton:

The concrete enfolding of a human personality, or the possibility of realization of respectively own designs to act and decisions to act, as far as this concerns the conscious or intentional use of digital media

Or as far as it is dependent on the existence or funcitonality of digital media.

# Personal identity & digital identity

# Personal identity & digital identity



- **Biometrische Merkmale (Fingerabdruck, Gesicht)**
  - stabil über die Zeit, kaum änderbar, nicht übertragbar, langfristig speicherbar (Reisepass), häufig wiederverwendet (Passkontrolle), authentisch, andere können darauf zugreifen (sofern nicht verschleiert)
  - **potentiell gefährlich für die Privatheit**
- **selbstbestimmte Identitätsmerkmale (Login, Passwort)**
  - anonym oder pseudonym, leicht änderbar, übertragbar an Dritte, Zugriff anderer nicht möglich, oft nur für unwichtige Teile des pers. Lebens relevant
  - **weniger gefährlich für die Privatheit**

# Personal identity & digital identity

Digital Self. Determining autonomy. Personal identifiers.

## **personal identity**

ontological questions

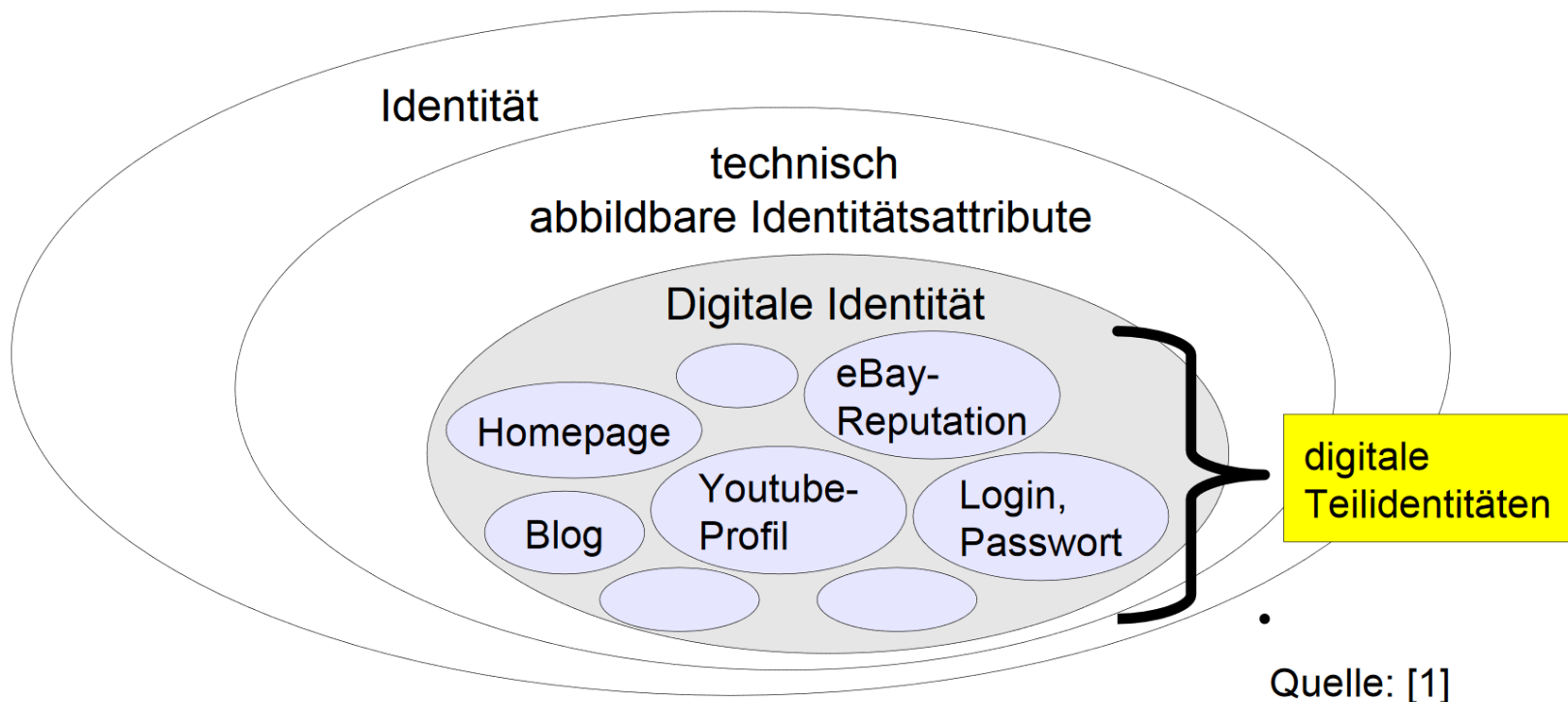
psychological theories, philosophical theories and all kinds of human interested arts and science approaches.

**Digital Identity → Verification**



# Übersicht: Identität im Netz

- Digitale Teilidentität: Untermenge der digitalen Identität, die eine Untermenge der abbildbaren Attribute sind
  - viele separate **digitale Teilidentitäten** möglich



# "analog self-determination" & "digital self-determination"



- Start
- Über das Projekt
- Expertisen
- Projektverbund
- Veranstaltungen
- Kontakt



## HERAUSGEBER\*INNE

Folgt man den Autor\*innen, besteht durch die Digitalisierung die Gefahr, dass Nutzer\*innen kaum noch selbstbestimmt im Netz handeln können. Daher ist es besonders wichtig, das Konzept der digitalen Selbstbestimmung genauer zu definieren. Ziel dieser Untersuchung ist es daher, eine Definition für digitale Selbstbestimmung zu erarbeiten. Hierfür werden zunächst eine explorative Literaturanalyse und eine Begriffsarbeit durchgeführt. Dabei stellen die Autor\*innen fest, dass Kompetenz ein Teil digitaler Selbstbestimmung ist. Anschließend wird eine Online-Befragung, repräsentativ für die deutsche Bevölkerung durchgeführt, um die Einstellungen der Bürger\*innen in Bezug auf den Umgang mit personenbezogenen Daten zu untersuchen.

## Annahmen über die Folgen der Digitalisierung

Neben den vielen Nutzungspotenzialen der neuen Medien, wie beispielsweise der erleichterte Zugang zu Informationen, ergeben sich auch viele Herausforderungen durch den technologischen Fortschritt. Gefahren sind beispielsweise die Einschränkung oder sogar der Verlust von selbstbestimmten Entscheidungen und Handlungen im digitalen Umfeld. Die Forschenden argumentieren, dass diese Einschränkung bzw. Verlust der Selbstbestimmung den Nutzer\*innen oft nicht bewusst ist, da ihnen die Kompetenzen fehlen, die das Verständnis der "heimlichen" Erhebung, Sammlung und Verwertung ihrer Daten ermöglichen würden.

## Kompetenzanforderungen

Nutzer\*innen sollen in der Lage sein, Apps auf dem Smartphone installieren zu können, sie sollen verstehen, wie Foren und Blogs funktionieren und wie man an solchen Angeboten teilnehmen kann. Außerdem sollen Nutzer\*innen ein Verständnis von Trojanern haben und auch in der Lage sein, die eigenen PCs vor Trojanern schützen zu können.

## Zentrale theoretische Annahmen über Kompetenz

Kompetenz wird von den Forschenden als ein Aspekt der digitalen Selbstbestimmung thematisiert. Unter Kompetenz werden die Fähigkeiten, Fertigkeiten und das Wissen verstanden, die dazu benötigt werden, Informationen, die für Handlungen und Entscheidungen relevant sind, zu finden, zu verstehen und bewerten zu können. Zudem ist es auch wichtig festzustellen, wann nur Informationen vorliegen (zum Beispiel bei Suchmaschinenergebnissen) und wann tatsächliches Wissen präsentiert wird. D.h. Nutzer\*innen sind in der Lage, Informationen bezüglich ihrer Qualität und Relevanz zu beurteilen.

## Kompetenzmodell & empirische Studie

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# Identity data management





# Identity data management

Where exactly are we talking about, who are the data, and which players are analysed?

The second part is concerned with the argumentation for practical approaches to a problematised account of digital-self determination. Namely, this is the problem of users not being in control of their own data.

This presentation will focus on the example of identity data not being controlled by the user it belongs to. It also comments on the problematic consequences arising from this lack of control, in specific circumstances. For example, the distribution of identity data in the internet without a handle on it.

# Identity data management

## ID2020

### We need to get digital ID right

Identity is vital for political, economic, and social opportunity. But systems of identification are archaic, insecure, lack adequate privacy protection, and for over a billion people, inaccessible. **Digital identity is being defined now — and we need to get it right.**

[Discover the Alliance](#)

- Digital Identity Guidelines (NIST)
- Digital Identification and Authentication Council of Canada
- Technical Standards for Digital Identity Systems for Digital Identity (World Bank Group)
- Digital Inclusion through Trust and Agency (IEEE)
- ID2020
- ISO/NP TR 23246 – Overview of identity management using blockchain and distributed ledger technologies

# Identity data management

- NIST SP 800-63-3, Digital Identity Guidelines
- Executive Summary
- 1 Purpose
- 2 Introduction
  - 2.1 Applicability
  - 2.2 Considerations, Other Requirements, and Flexibilities
  - 2.3 A Few Limitations
  - 2.4 How to Use this Suite of SPs
  - 2.5 Change History
    - 2.5.1 SP 800-63-1
    - 2.5.2 SP 800-63-2
    - 2.5.3 SP 800-63-3
- 3 Definitions and Abbreviations
- 4 Digital Identity Model
  - 4.1 Overview
  - 4.2 Enrollment and Identity Proofing
  - 4.3 Authentication and Lifecycle Management
    - 4.3.1 Authenticators
    - 4.3.2 Credentials
    - 4.3.3 Authentication Process
  - 4.4 Federation and Assertions
    - 4.4.1 Assertions
    - 4.4.2 Relying Parties

## Abstract

These guidelines provide technical requirements for federal agencies implementing digital identity services and are not intended to constrain the development or use of standards outside of this purpose. The guidelines cover identity proofing and authentication of users (such as employees, contractors, or private individuals) interacting with government IT systems over open networks. They define technical requirements in each of the areas of identity proofing, registration, authenticators, management processes, authentication protocols, federation, and related assertions. This publication supersedes NIST Special Publication 800-63-2.

## Keywords

authentication; authentication assurance; authenticator; assertions; credential service provider; digital authentication; digital credentials; identity proofing; federation; passwords; PKI.

## Acknowledgments

The authors gratefully acknowledge Kaitlin Boeckl for her artistic graphics contributions to all volumes in the SP 800-63 suite and the contributions of our many reviewers, including Joni Brennan from the Digital ID & Authentication Council of Canada (DIACC), Ellen Nadeau and Ben Piccarreta from NIST, and Danna Gabel O'Rourke from Deloitte & Touche LLP.

This publication is available

# Identity data management

*This section is informative.*

Digital identity is the online persona of a subject, and a single definition is widely debated internationally. The term persona is apropos as a subject can represent themselves online in many ways. An individual may have a digital identity for email, and another for personal finances. A personal laptop can be someone's streaming music server yet also be a worker-bot in a distributed network of computers performing complex genome calculations. Without context, it is difficult to land on a single definition that satisfies all.

Digital identity as a legal identity further complicates the definition and ability to use digital identities across a range of social and economic use cases. Digital identity is hard. Proving someone is who they say they are — especially remotely, via a digital service — is fraught with opportunities for an attacker to successfully impersonate someone. As correctly captured by [Peter Steiner in The New Yorker](#), “On the internet, nobody knows you're a dog.” These guidelines provide mitigations to the vulnerabilities inherent online, while recognizing and encouraging that when accessing some low-risk digital services, “being a dog” is just fine; while other, high-risk services need a level of confidence that the digital identity accessing the service is the legitimate proxy to the real-life subject.

For these guidelines, digital identity is the unique representation of a subject engaged in an online transaction. A digital identity is always unique in the context of a digital service, but does not necessarily need to uniquely identify the subject in all contexts. In other words, accessing a digital service may not mean that the subject's real-life identity is known.

# Identity data management: ID 2020

## **ID 2020**

*With the opportunity for immunization to serve as a platform for digital identity, the program harnesses existing birth registration and vaccination operations to provide newborns with a portable and persistent biometrically-linked digital identity. The program will also explore and assess several leading infant biometric technologies to offer a persistent digital identity from birth, unlocking a potential global public good.*

# Complexity issues



# Complexity issues: Perspectives

- Who has/ should have control over whom's data?
- How is this control conceptually implemented or realised?
- In what context is control being taken away/ gained?
- Which circumstances of the individual are part of this context?
- Which technologies are being suggested/ promoted/ made available to (re-)gain control
- Why should control be granted or taken away?



# Complexity issues: Perspectives

## ID 2020

<https://id2020.org/manifesto>



**1.1 Billion**

People Worldwide Live  
Without A Digital ID



**Identity data**

is outside of  
individual control



**Protections for**

privacy are  
insufficient



# Complexity issues: Perspectives



- The question "How can we mend the problem of a lack of control on our identity data?" fails to take into account the user differences, because the question, thusly formulated, asks for a universal solution.
- The question "Which user groups need which degree of autonomy?" fails to address the notion of equal chances and possibilities, that is ideologically fundamental.
- The question "Why should we use blockchain for identification verification purposes?" fails to address the issue of whether something like identification verification is needed, in the first place, and for what.

# Complexity issues: Reasons buried in tech talk



Many sources of information for technologies which can be used, (lets call them) 'arguments' are made on the side, which justify the reasons why this technology is explained. Those are almost never properly situated in theoretical frameworks, seldomly introduced and often barely recognisable - the more the learner or thinker pays attention to the technological explanations, the less time and capacity is left to question the reasons for implementation.

The same goes for political explanations of taking responsibility and ethical and security demands seriously, while paving the way for implantations of biometrical chips.

# Different users



## Digital natives:

- interact seamlessly
- are born into a world in which interaction with technology is an integral part of life
- The App Generation
  
- 3 aspects of the lives of young people that are most affected by digital technology:
  - their sense of identity,
  - capacity for intimate relations and
  - imaginative powers.

# Different users



## Digital immigrants:

- adapt to their environment,
- always retain, to some degree, their "accent," that is, their foot in the past
- The “digital immigrant accent” can be seen in such things as turning to the Internet for information second rather than first
- in reading the manual for a program rather than assuming that the program itself will teach us to use it
- printing out your email (or having your secretary print it out for you –an even “thicker” accent)
- bringing people physically into your office to see an interesting web site (rather than just sending them the URL)

# Different users



## Digital Natives Prefer:

- Receiving info quickly from multiple sources
- Multitasking and parallel processing
- Pictures, sounds and video before text
- Hyperlinked sources
- Interacting in “real-time”
- User generated content
- Learning that is instant, relevant and fun

## Digital Immigrants Prefer:

- Controlled release of info from limited sources
- Single or “focused” tasks
- Often prefer to get information from text
- Greater need for private and personal space for introspection
- Like info presented linearly, logically and sequentially

# decentralisation vs. data cockpit

One tries to diversify

-

the other tries to collect and  
centralise identity data

## Conclusion:

The conclusion of the presentation estimates that one of the solution proposals has a better chance of success than the other. The criteria for this success estimation, here, is realism - a try to estimate how realistic the success, in light of the complexity of the topic, actually is.



# Sources:

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