Introduction to Data Donation

Workshop TU Ilmenau 2026

Session 1️⃣: Welcome & Intro to Digital Trace Data

👉 Part of the SPP DFG Project Integrating Data Donations in Survey Infrastructure

UNIVERSITÄT
KLAGENFURT

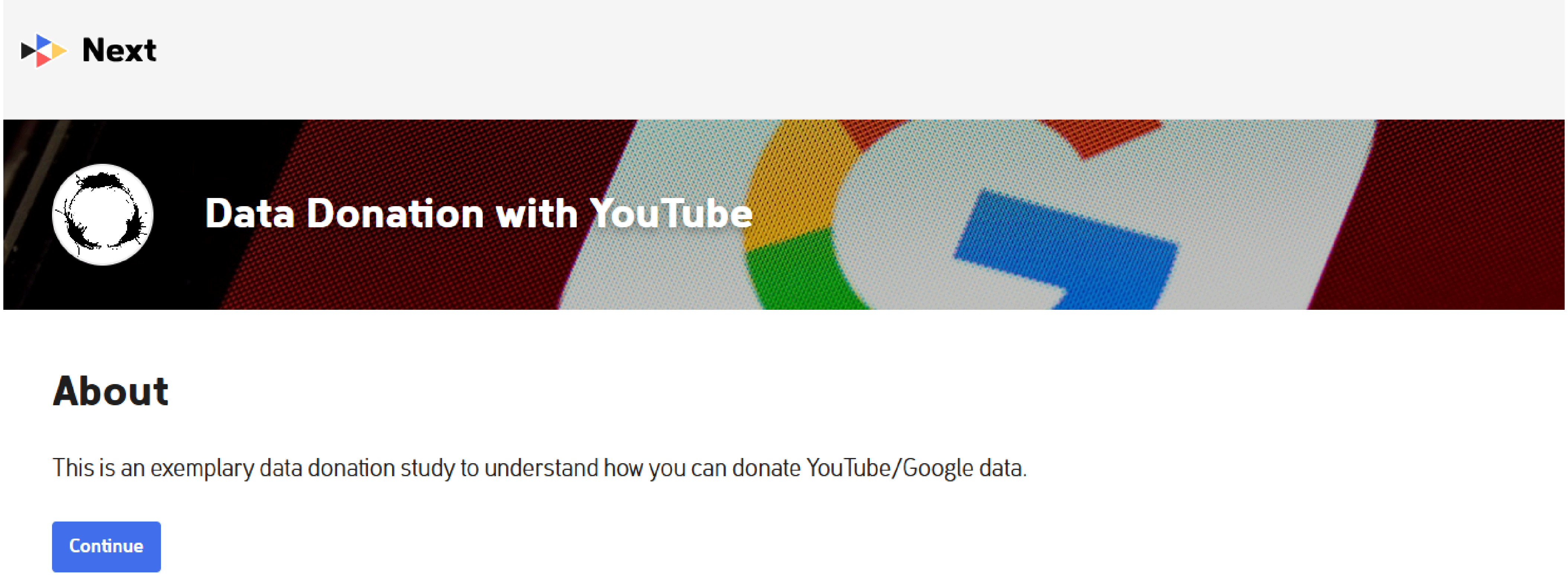
Agenda

1. Intro to the workshop
2. What is digital trace data?
3. How can we collect digital traces?

Image by Hope House Press via Unsplash

Before we start: Have you requested and downloaded your Google Data? 🤔

Otherwise, use this link to request your data now: https://next.eyra.co/a/nWPJC4?p=999 - replace number after *p=* with random number



Next

Data Donation with YouTube

About

This is an exemplary data donation study to understand how you can donate YouTube/Google data.

1. Intro

Source: Image by Markus Winkler via Unsplash

Who are you?

Please raise your hand ✋ if you ....

- are familiar with the term digital trace data
- have worked with APIs
- have worked with automated content analysis
- have worked with data donation

Who are you?

In 2-3 sentences, tell us...

- your main research interests
- the methods you mainly use
- related to which theoretical questions/data you are interested in data donation as a method

About me: Valerie Hase

Professor of Digital Media and Communication

- Digital Media and Methods Lab
- University of Klagenfurt

Research interests:

- CSS (automated content analysis, digital traces, bias, data access)
- Digital journalism, crisis communication

👉 More info: github.com/valeriehase & valerie-hase.com

A big thank you 🙌 to the organizers

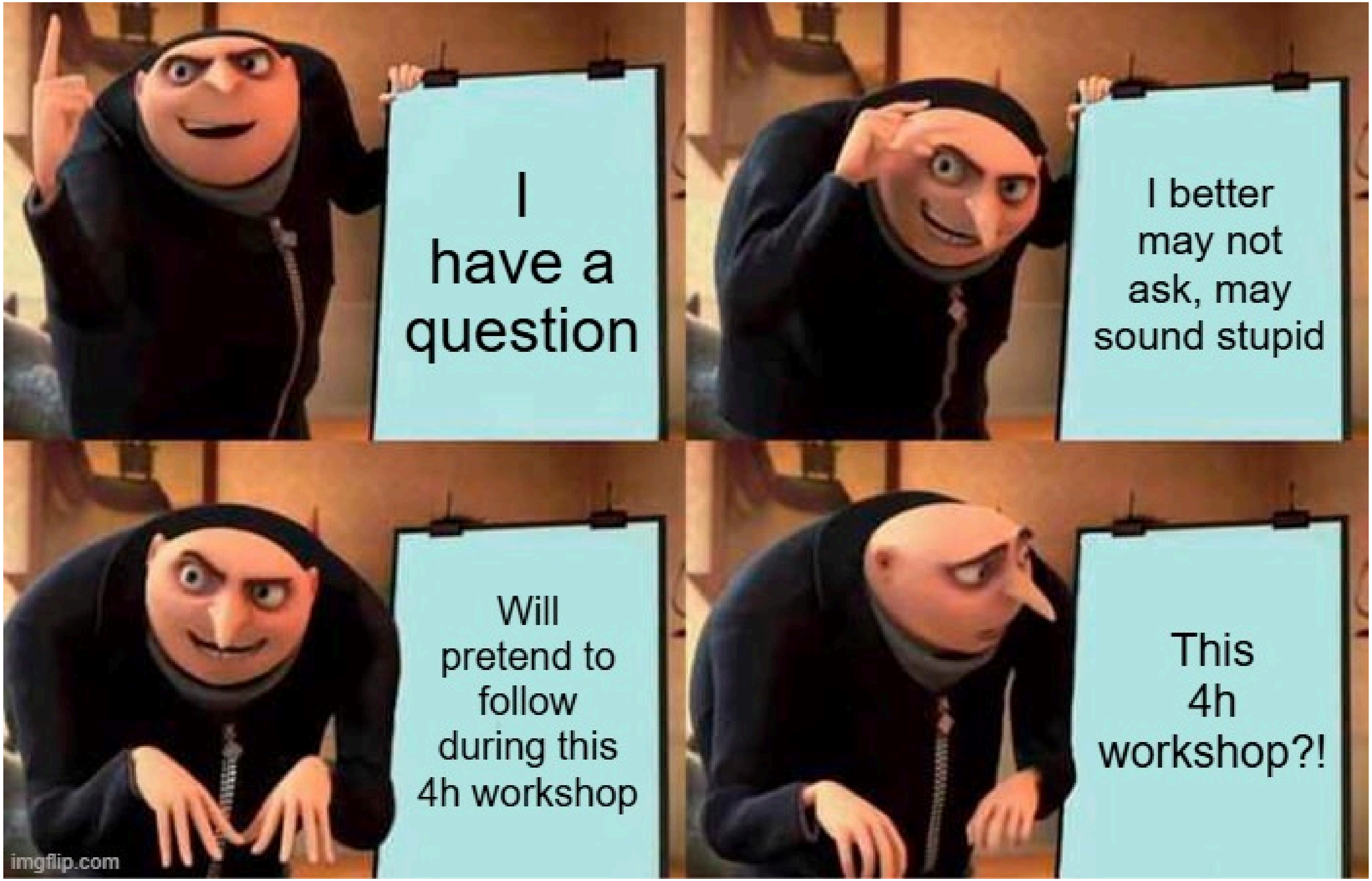
Shoutout to the organizers behind this workshop

- Max Schindler
- Leonie Kühn

What is the goal of this workshop?

- ✅ Understanding digital data traces as a *type* of data
- ✅ Understanding data donation as a *method* of data access
- ✅ Working through key steps of data donation methods (user & researcher view)
- ✅ Discussing when (not) to use data donation studies
- ❌ Detailed implementation (e.g., server set-up, coding data extraction scripts)

How do we communicate in this workshop?


I have a question
I better may not ask, may sound stupid
Will pretend to follow during this 4h workshop
This 4h workshop?!
imgflip.com

How do we communicate in this workshop?

My goal is that you…

- just **ask right away** if there is something you did not understand
- keep in mind that there **are not stupid questions**
- feel free to ask questions specific to your potential data donation projects!

Timetable

⏰ 10-10:15am	Session 1️⃣: Welcome & Intro to Digital Traces
⏰ 10:15-11am	Session 2️⃣: Data Donation Studies (Participant Perspective)
⏰ 11am-12:15pm	Session 3️⃣: Data Donation Studies (Researcher Perspective)
🥖 12:15-13:15pm	Lunch break
⏰ 13:15-2pm	Session 4️⃣: Bias in Digital Trace Data & Outro

2. What is digital trace data?

Source: Image by Markus Winkler via Unsplash

What is digital trace data?

Definition 💡 : *The recording and storing of activities on digital platforms to draw conclusions about digital and analog phenomena*

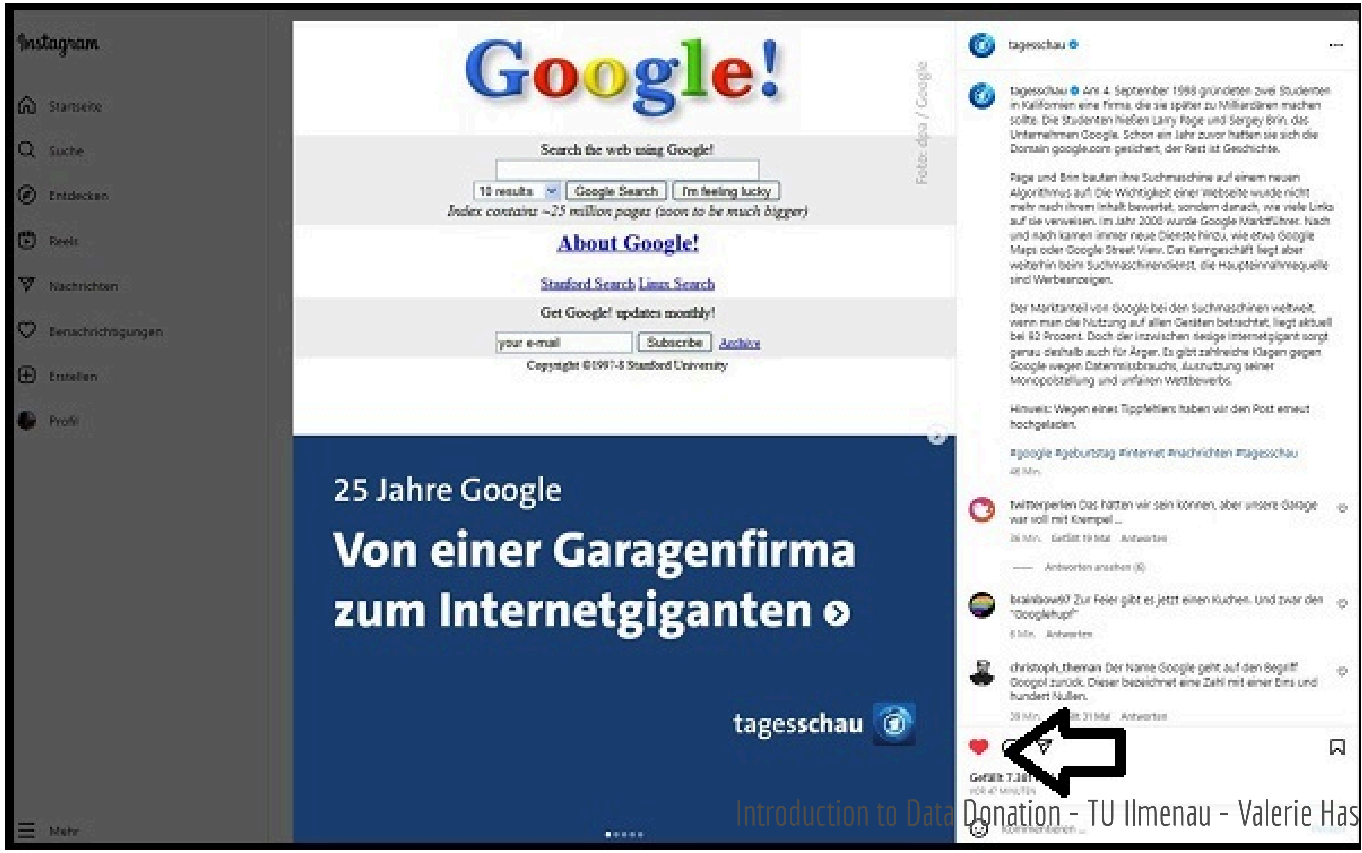
- e.g., tweets, likes, shares on social media
- e.g., geo data (locations, movements)
- e.g., digital payments
- e.g., Spotify playlists

What is digital trace data?

Definition 💡 : *The recording and storing of activities on digital platforms to draw conclusions about digital and analog phenomena*

- e.g., tweets, **likes**, shares on social media

Example: Instagram Like



tagesschau Am 4. September 1998 gründeten zwei Studenten in Kalifornien eine Firma, die sie später zu Milliardären machen sollte. Die Studenten hießen Larry Page und Sergey Brin, das Unternehmen Google. Schon ein Jahr zuvor hatten sie sich die Domain google.com gesichert, der Rest ist Geschichte.

Page und Brin bauten ihre Suchmaschine auf einem neuen Algorithmus auf: Die Wichtigkeit einer Webseite wurde nicht mehr nach ihrem Inhalt bewertet, sondern danach, wie viele Links auf sie verweisen. Im Jahr 2000 wurde Google Marktführer. Nach und nach kamen immer neue Dienste hinzu, wie etwa Google Maps oder Google Street View. Das Kerngeschäft liegt aber weiterhin beim Suchmaschinendienst, die Haupteinnahmequelle sind Werbeanzeigen.

Der Marktanteil von Google bei den Suchmaschinen weltweit, wenn man die Nutzung auf allen Geräten betrachtet, liegt aktuell bei 82 Prozent. Doch der inzwischen riesige Internetgigant sorgt genau deshalb auch für Ärger. Es gibt zahlreiche Klagen gegen Google wegen Datenmissbrauchs, Ausnutzung seiner Monopolstellung und unfairen Wettbewerbs.

Hinweis: Wegen eines Tippfehlers haben wir den Post erneut hochgeladen.

#google #geburtstag #internet #nachrichten #tagesschau

48 Min.

twitterperlen Das hätten wir sein können, aber unsere Garage war voll mit Krempel ...

36 Min. Gefällt 19 Mal Antworten

Antworten ansehen (6)

brainbow67 Zur Feier gibt es jetzt einen Kuchen. Und zwar den "Googlehupf"

5 Min. Antworten

christoph_themon Der Name Google geht auf den Begriff Googol zurück. Dieser bezeichnet eine Zahl mit einer Eins und hundert Nullen.

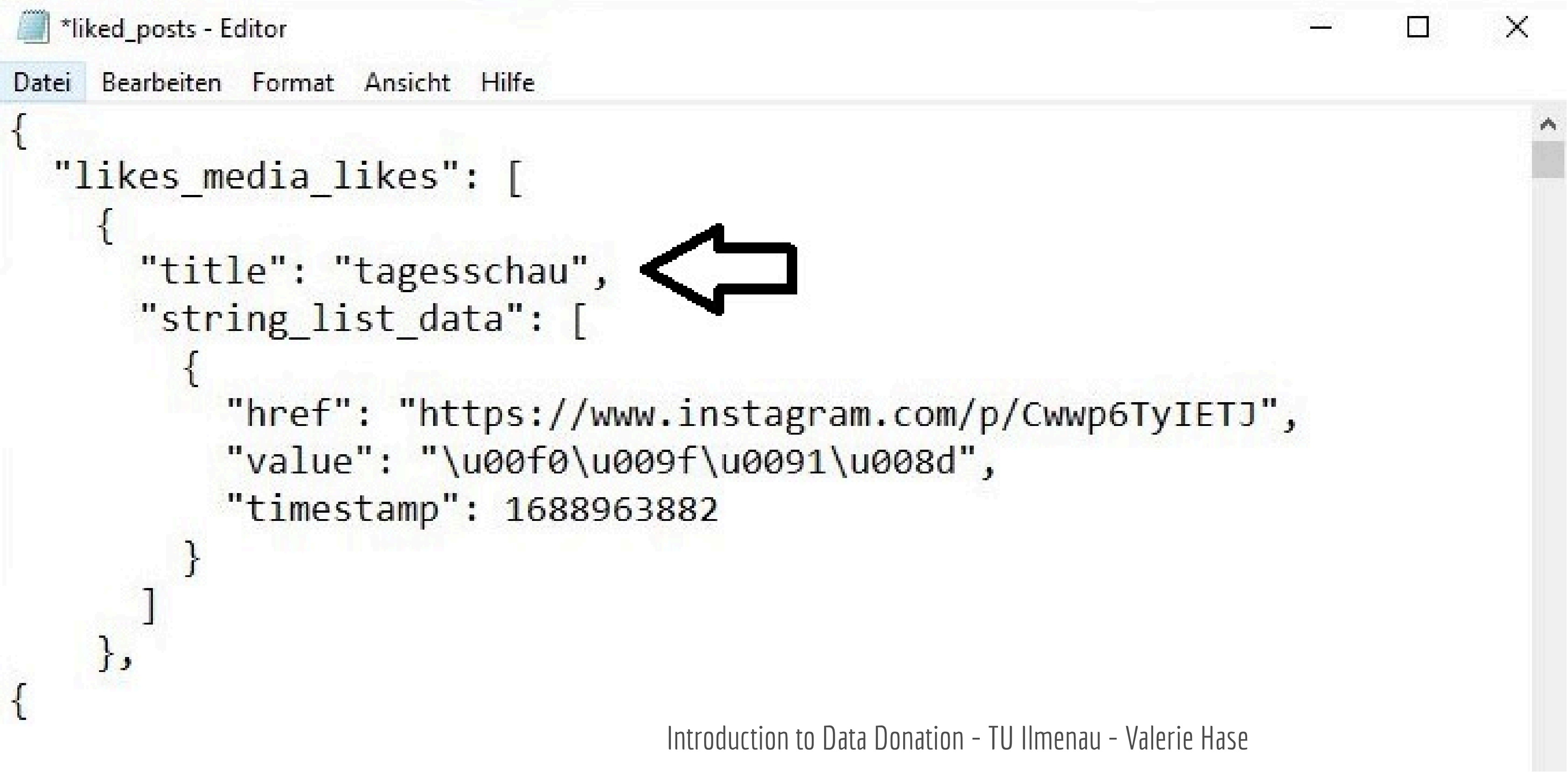
38 Min. Gefällt 31 Mal Antworten

What is digital trace data?

Definition 💡 : *The recording and storing of activities on digital platforms to draw conclusions about digital and analog phenomena*

- e.g., tweets, **likes**, shares on social media

Example: Instagram Like

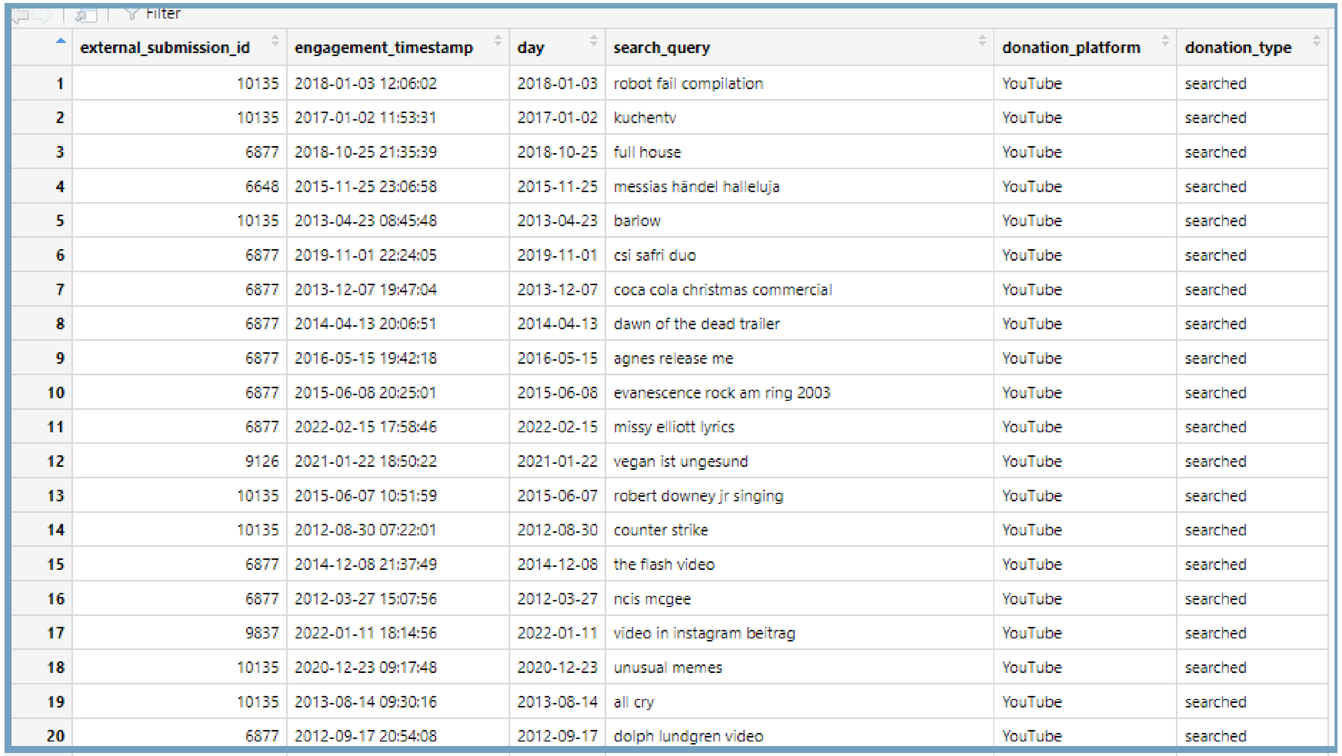


```
{
  "likes_media_likes": [
    {
      "title": "tagesschau",
      "string_list_data": [
        {
          "href": "https://www.instagram.com/p/Cwwp6TyIETJ",
          "value": "\u00f0\u009f\u0091\u008d",
          "timestamp": 1688963882
        }
      ]
    },
{
```

What is digital trace data?

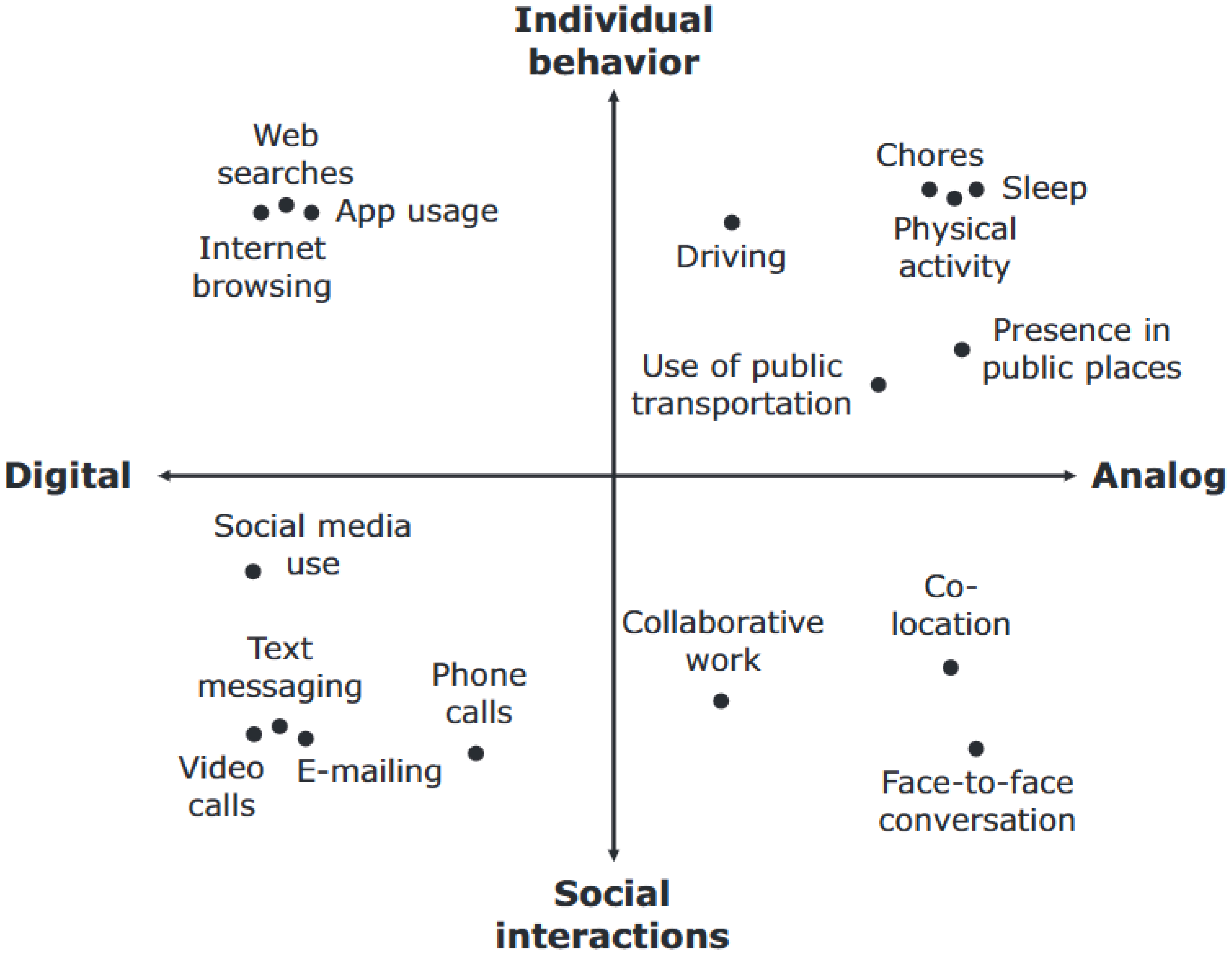
Depending on the data collection method… (Haim & Hase, 2023; Ohme et al., 2024):

- often fine-grained (e.g., time-stamped)
- often longitudinal (e.g., over years, within-individual change)
- often less reactive (e.g., less concerns about social desirability)



	external_submission_id	engagement_timestamp	day	search_query	donation_platform	donation_type
1	10135	2018-01-03 12:06:02	2018-01-03	robot fail compilation	YouTube	searched
2	10135	2017-01-02 11:53:31	2017-01-02	kuchentv	YouTube	searched
3	6877	2018-10-25 21:35:39	2018-10-25	full house	YouTube	searched
4	6648	2015-11-25 23:06:58	2015-11-25	messias händel halleluja	YouTube	searched
5	10135	2013-04-23 08:45:48	2013-04-23	barlow	YouTube	searched
6	6877	2019-11-01 22:24:05	2019-11-01	csi safri duo	YouTube	searched
7	6877	2013-12-07 19:47:04	2013-12-07	coca cola christmas commercial	YouTube	searched
8	6877	2014-04-13 20:06:51	2014-04-13	dawn of the dead trailer	YouTube	searched
9	6877	2016-05-15 19:42:18	2016-05-15	agnes release me	YouTube	searched
10	6877	2015-06-08 20:25:01	2015-06-08	evanescence rock am ring 2003	YouTube	searched
11	6877	2022-02-15 17:58:46	2022-02-15	missy elliott lyrics	YouTube	searched
12	9126	2021-01-22 18:50:22	2021-01-22	vegan ist ungesund	YouTube	searched
13	10135	2015-06-07 10:51:59	2015-06-07	robert downey jr singing	YouTube	searched
14	10135	2012-08-30 07:22:01	2012-08-30	counter strike	YouTube	searched
15	6877	2014-12-08 21:37:49	2014-12-08	the flash video	YouTube	searched
16	6877	2012-03-27 15:07:56	2012-03-27	ncis mcgee	YouTube	searched
17	9837	2022-01-11 18:14:56	2022-01-11	video in instagram beitrag	YouTube	searched
18	10135	2020-12-23 09:17:48	2020-12-23	unusual memes	YouTube	searched
19	10135	2013-08-14 09:30:16	2013-08-14	all cry	YouTube	searched
20	6877	2012-09-17 20:54:08	2012-09-17	dolph lundgren video	YouTube	searched

Which types of data does this include?



Source: Keusch & Kreuter, 2023, p. 102

Why are digital traces becoming more popular?

- **Problems with self-reported data** (e.g., via survey)
  - Inaccurate measurements (recall issues)
  - Bias (Parry et al., 2021; Scharkow, 2016): individual characteristics may predict under- or overreporting
  - Declining response rates in surveys (Luiten et al., 2020)

Why are digital traces becoming more popular?

- **Problems with self-reported data** (e.g., via survey)
- **Availability of digital traces**
  - cheap (e.g., via APIs)
  - large data sets (“big data”)
  - more accurate (“objective data”)

Why are digital traces becoming more popular?

- Problems with self-reported data (e.g., via survey)
- Availability of digital traces

Why are digital traces becoming more popular?

- Problems with self-reported data (e.g., via survey)
- Availability of digital traces

Be careful: These "advantages" of traces are often claimed, but **empirically disputed**.

Digital traces are **neither** necessarily less biased, nor cheaper, or larger (we will discuss this in Session 4️⃣).

(Dis-)advantages of digital trace data

- ✅ More fine-grained, often longitudinal measures due to timestamps
- ✅ Partly measurement of new variables (e.g., algorithmic inference)
- ❌ Still bias due to errors in representation and measurement
- ❌ Implementation can be expensive and cumbersome

👉 More data does not mean better data!

Summary: What is digital trace data? 📚

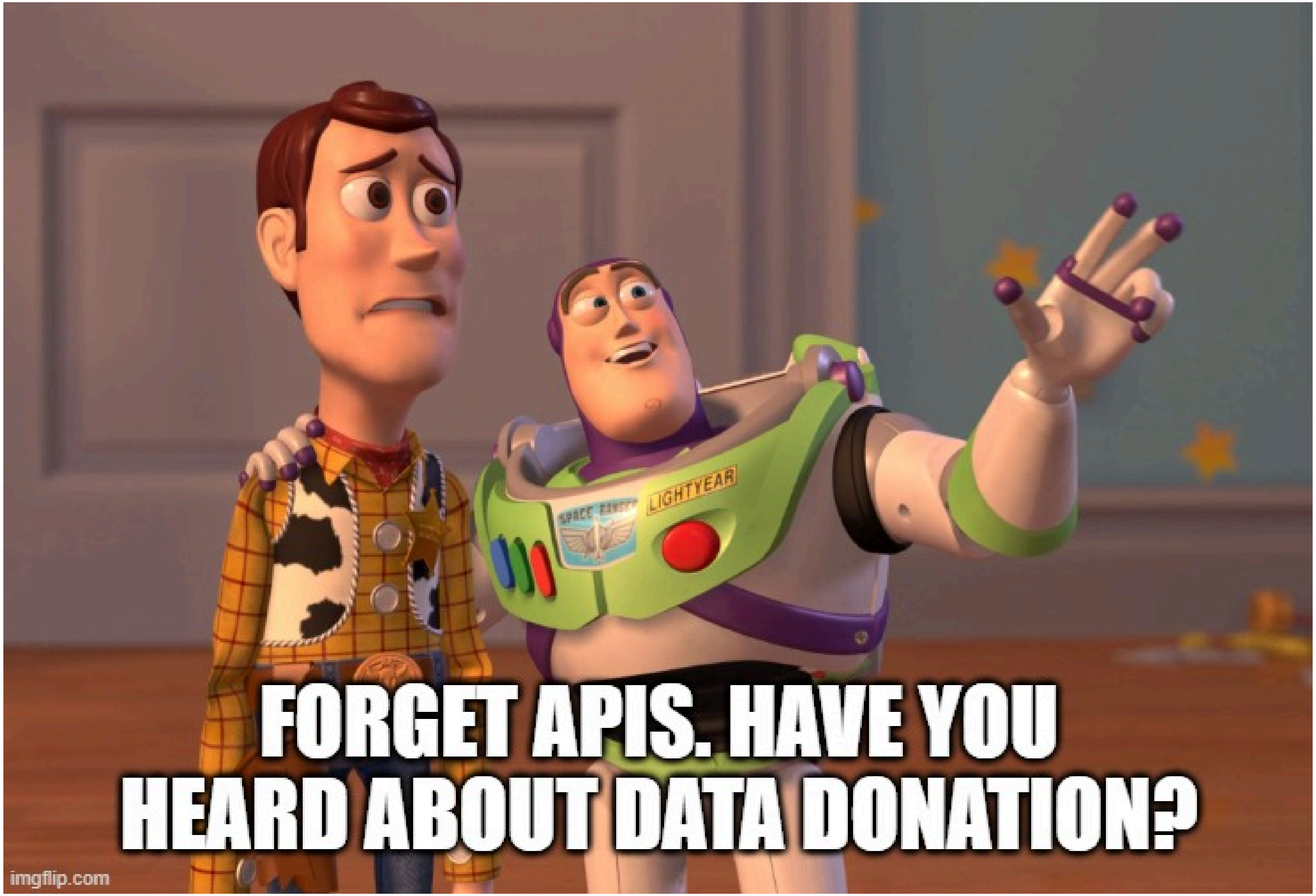
- **Definition**: *The recording and storing of activities on digital platforms to draw conclusions about digital and analog phenomena*
- **Further literature**
    - Keusch & Kreuter (2021)
    - Haim & Hase (2023)
    - Ohme et al. (2024)

3. How can we collect digital traces?

Source: Image by Markus Winkler via Unsplash

Which methods do you know/have you used for collecting digital trace data? 🤔

Platform- and user-centric methods



Platform- and user-centric methods

- **Platform-centric** (based on platform cooperation)
  - API (Jünger, 2021)
  - Cooperation with platforms (Wagner, 2023)
- **User-centric** (based on user cooperation and informed consent) or “follow the user” approaches (Caliandro, 2024)
  - Data donation (Carrière et al., 2024)
  - Linkage to existing databases (Sloan et al., 2020)
  - Active sharing via sensors (Struminskaya et al., 2021)
  - Passive sharing via sensors/tracking (Christner et al., 2022)

Platform- and user-centric methods

- **Restrictions of platform-centric methods**
  - Discontinuation of APIs (Freelon, 2018)
  - Concerns about bias (Schatto-Eckrodt, 2022; Ulloa et al., 2025)
- **User-centric methods become more popular, given …**
  - Legal frameworks enabling such studies (GDPR, DSA)
  - Presumably (!) more researcher control
  - Ethical considerations (informed consent)

Summary: How can we collect digital traces? 📚

- **Summary**
    - Platform-centric methods (e.g., APIs) and user-centric methods (e.g., data donation)
    - Key differences: control over samples & measurements, legal & ethical contexts
- **Further literature**
    - Haim & Hase (2023)
    - Ohme et al. (2024)

Questions? 🤔

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