

Data donations – a user-centric approach to collect digital trace data

Journalistica: The Methods Section

In this section, Journalistica puts a spotlight on research methods used in journalism studies and/or journalism practice.

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KEYWORDS

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1. Description of the method

Data donations can be defined as a *user-centric data collection approach where research participants voluntarily disclose their existing digital trace data to researchers* (Ohme et al., 2024; Schnurr et al., 2026). It typically refers to forms of data access that enable the collection of user-level digital trace data – initially collected by a digital platform (e.g., browser, health tracker, social media) – for secondary use. Data donations currently take three main forms, distinguished primarily by how much they demand of participants and the degree of detail they provide to researchers:

- **Aggregated mobile use donation** is an approach where participants transfer aggregate usage statistics that devices automatically record (e.g., Apple Screen Time) to researchers via screenshots, screen recordings, or manually (Asensio et al., 2026; Ohme et al., 2021; Toth et al., 2025). This results in moderate participant effort and provides cross-app data, but is limited to aggregated data (e.g., time spent in App X over the past week) with no behavioural detail.

- **Data Download Packages (DDPs)** draw on GDPR's right to data portability. Participants download their full digital trace data of a certain application and donate it to researchers – possibly through a privacy-preserving donation tool (Boeschoten et al., 2022). This approach provides highly granular timestamped data (e.g., views, likes, shares, etc.), but is commonly limited to one or a few platforms in a study design, and places a high burden on participants (Ohme et al., 2024).
- **Authentication-based access** allows participants to authorize a platform they use (e.g., TikTok) to share their user trace data directly with a third-party app (e.g., a research app) without having to request, download, and upload the data themselves – substantially reducing the burden of the DDP approach while yielding comparable data (*data-access mandates* in Hase et al., 2024). This approach is very recent, and only now are ongoing research projects putting it into practice. It builds on the data portability right established under GDPR, which the Digital Markets Act extended to authorized third parties with continuous, real-time access.

Importantly, variants of data donations are often tied to current legal frameworks – hence current variants may disappear, or change.

2. Examples of use

Loecherbach et al. (2024) use browser history DDPs to show, how a broader news concept reveals blind spots that occur when researchers focus exclusively on mainstream news sources in digital news use measurements. Kiddle et al. (2026) also based on browser history DDPs, find that news access via social media or search – rather than direct navigation – increases both topic and outlet diversity. Both studies demonstrate that data donations can provide the kind of granular behavioural evidence needed to answer longstanding questions about audience news diets.

3. Relevance and potential for journalism studies

Data donations provide access to granular, retrospective behavioural traces that currently cannot be retrieved through any other means. For journalism studies – a field that continues to struggle to support its digital turn with digital methods (Fan et al., 2025) – this opens up research designs on both the producer and audience side, combining qualitative depth with quantitative scale.

On the qualitative side, DDPs can be processed into visualisations that allow researchers to walk participants through their own past activity as an interview prompt (Gajardo et al., 2026). Applied to news producers, data donations of their accounts would allow researchers to prompt journalists with actions that may impact public discourse but would not be observable via public data. Such intermediation practices on social platforms (Mayer et al., 2026) may include banning accounts, or hidden spotlighting practices such as liking or privately sharing content. On the audience side, confronting participants with their actual consumption traces enables investigation of the heuristic processes underlying news selection and avoidance.

For larger samples, DDPs allow detailed mapping of news diets, and hence investigation of the content audiences actually access, via which pathways, and from which outlets (Kiddle et al., 2026). The analytical possibilities are extensive, and with multi-wave research designs being in principle feasible (Wedel & Ohme, 2026), causal inference based on ecologically valid user-level data is within reach for the field.

4. Main advantages and challenges of using the method

Compared to other forms of individual digital trace data collection (tracking via an app or a browser plugin), data donations hold the advantage of typically being collected retrospectively, and hence not being reactive, as well as not being restricted to the time of app/plugin installation – often covering a much longer temporal window of data traces (Ohme et al., 2024). Furthermore, while being restricted to one platform, data donations cover all activities on that platform – no matter across how many devices that platform is used.

The method's main limitations are practical: selection biases are introduced throughout the donation flow through participant burden, digital literacy, and privacy concerns (Xiong et al., 2025) and sample sizes are typically small and non-representative (see Bechmann et al., 2025 for a rare case of a larger sample; Wedel et al., 2026). These issues are the subject of active methodological work (e.g., de León et al., 2025). Importantly, data donations often do not include content-level data – only content IDs – meaning an additional augmentation step (e.g., scraping) is often required for content-level analysis (Wedel et al., 2024).

5. Ethical considerations

Ethical considerations are central to this method given the sensitivity of individual-level digital trace data, which is compounded by typical data-linkage study designs adding sociodemographic and attitudinal measures via self-report (Otto et al., 2024). It remains an open question under what circumstances informed consent can be provided given that one cannot reasonably review all the data before donating (Groot Kormelink et al., 2025).

The field is continuing to improve the data collection flow to account for its various issues, with extensive work on data donation completeness (de León et al., 2026), emerging best practices (Carrière et al., 2025), and privacy sensitive donation tools (Boeschoten et al., 2023; Pfiffner et al., 2024).

6. Further readings

Along with the cited literature the following papers provide an excellent starting point to the topic:

- Bechmann et al. (2025) provide a report on one of the largest data donation studies on YouTube to date with donations from 1000 Danes.
- Schnurr et al. (2026) provide a broader discussion on the definition of data donations.
- Chouaki et al. (2024) published one of the earliest empirical works on news exposure measurement through TikTok data donations from the perspective of computer science.
- Kruschinski et al. (2026) provide an extensive methods overview on the topic of data donations in general.

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