

Screenshots as data and documentation

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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1. Introduction

Digital media are characterised by their ephemerality: continuous news updates, stories on social media being available for only 24 hours, ever-changing feeds, and promotion of new content on streaming services. From a scholarly and cultural heritage perspective, the fleetingness is a challenge as digital media are generally not systematically archived. On this background, Aegidius and Andersen (2024, p. 2) stress that interfaces “[...] are essentially lost to us on a daily basis”, and Kelly (2022) warns that the lack of digital preservation can lead to a scholarly dark age (see also Distelmeyer, 2023). However, in the words of Kneese (2022, p. 163): “Screenshots are one strategy for working with and through platform temporality”. Taking screenshots (also termed screen captures or screen grabs) is a simple and straightforward method for collecting, archiving, and presenting the user experience of an on-screen interface. As such, it differs from e.g. web scraping where data is typically extracted from a webpage and does not depict the interface that meets the user.

For several years, screenshots have been a natural part of research of digital media (e.g. Caple, 2019; DeCook, 2018; Eklund, 2022; Hesmondhalgh & Lotz, 2020; Johnson, 2017), but interestingly, it is not necessarily widespread practise for scholars to reflect explicitly on the use of screenshots as their method for archiving and analysing digital content (for exceptions, see Andersen, 2024; Bruun &

Bille, 2022; Johnson, 2019; Lassen, 2023). However, in all research, it is important to be aware of and reflect on one's choice and use of methods, and this also applies to the use of screenshots. This contribution offers reflections on and recommendations for integrating screenshots into digital media research. While the examples and much of the literature are related to qualitative research into audiovisual streaming services, it is important to emphasise that screenshots can be used in the study of a variety of media, which can be accessed via a screen such as webpages of news media, social media, video games, digital communication (e.g. text messages), and self-tracking apps.

2. Description of the method

As stated above, digital interfaces are typically not collected and archived, and services such as the Internet Archive's *Wayback Machine* or the Danish *Netarkivet* do not offer a stable day-to-day collection. Therefore, researchers must collect the data themselves by taking screenshots. Using this method for data collection requires planning as screenshots often cannot be used for collecting data retrospectively: Newspages, feeds, and interfaces constantly change and must thus be captured going forward. Several questions must therefore be considered regarding sampling strategy: which services to collect, when, how often, and for how long a period (see also Markham, 2020). The examples of use below illustrate different research designs, all based on screenshotting but with different sampling strategies and outcomes.

The tools for screenshotting are always at hand, as the computer's keyboard or smartphone's buttons can be used to capture an on-screen image. However, it is possible to install a browser extension that takes a screenshot of the entire page length just as webrecordings can be considered to supplement or replace the static screenshot. Preferably, screenshotting should be carried out on the device usually used to access the given medium in accordance with a given target group's media habits. This would typically mean a smartphone for social media and other apps, a PC for computer games and news websites, and TV sets for streaming services. However, this principle must be balanced with pragmatism. For instance, audiovisual streaming service researchers often collect data on PCs instead of TVs because screenshotting tools are readily available on PCs.

Once screenshotting has been used as a method to collect data, the captured screenshots function as data that can be analysed. Depending on the research question, the screenshots can be subject to

e.g. visual (Pajkovic, 2022), (para)textual (Lassen, 2023), semiotic (Caple, 2019), or discourse analysis (DeCook, 2018). Which approach is most suitable depends on the research purpose, questions, and data.

3. Example of use

The following three research examples make use of screenshots in analysing and documenting curational practices on Danish and/or transnational streaming services, but their research design and purpose differ.

In his analysis of how the placement of reality programmes on the front pages of four streaming services changes over time, Andersen's (2024) conclusions are based on a larger corpus of screenshots. Lassen (2023) uses screenshots to examine how temporality is emphasised by the two legacy broadcasters DR and TV 2 in the captions, labelling of programmes, and placement of time-sensitive content within their streaming services. Using screenshots from four different Netflix profiles, Pajkovic (2022) tracks how personalisation affects the artwork on the front pages so that the same programme is offered with different thumbnail pictures across the profiles. Even though all of these studies employ screenshots as data, there are important differences to highlight: Both Lassen's and Pajkovic's findings can be characterised as snapshots as they document practices during a period of two weeks. In contrast, Andersen has built an archive with data collected over a period of three years. Similarly, Andersen uses constructed weeks as a sampling strategy, whereas Lassen and Pajkovic use consecutive days. Finally, both Andersen and Lassen collect data from unused accounts, while Pajkovic seeks to personalise the Netflix profiles before the data collection. In all three cases, screenshotting is a suitable method for data collection as interfaces play a vital role in the user's experience of and engagement with a streaming service.

Just as screenshotting can be employed in research of various digital media, it is important to emphasise that screenshots can function as data in its own right or can be integrated into different kinds of mixed or multi-methods research. Several studies combine screenshotting with qualitative interviews (e.g. Flore, 2024; Ørmen & Thorhauge, 2015; Schreiber, 2017) but there are also examples of screenshotting being integrated into or combined with quantitative research of digital communication (e.g. Clark-Gordon et al., 2017; Cramer et al., 2023; Judy Kamalodeen & Jameson-Charles, 2016).

4. Main advantages and challenges of using the method

A picture is worth a thousand words. Compared to describing an interface or making illustrations to depict the analytical object, screenshots have the advantage that they allow the researcher to display the object of study as it appeared to the user at a given point in time. As noted above, a further advantage of this data collection method is that screenshots are easy to take. There are, however, some important shortcomings which are relevant to reflect on when deciding to include screenshots in research. Laursen, Brügger, and Sandvik (2017, p. 35) consider a disadvantage of screenshots to be the limited useability compared with the original webpage: links do not function, the screenshots are not searchable, and audiovisual content is not playable. Besides these limitations, Andersen (2024) points out how a rich dataset can be time-consuming to build. This might seem self-evident, but another point is that while it is very easy to acquire a significant amount of data, the same amount requires a systematic approach and good structure to archive and navigate.

5. Ethical considerations

In general, screenshots are to be considered quotes if analysing them in a publication. If studies are based on e.g. social media content or donated data from smartphones, it is necessary to consider if what is in the screenshot is subject to GDPR rules and requires informed consent, blurring, or other precautions to ensure privacy protection.

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