

Handout

Educational Apps – What are You Paying With?

February 2025

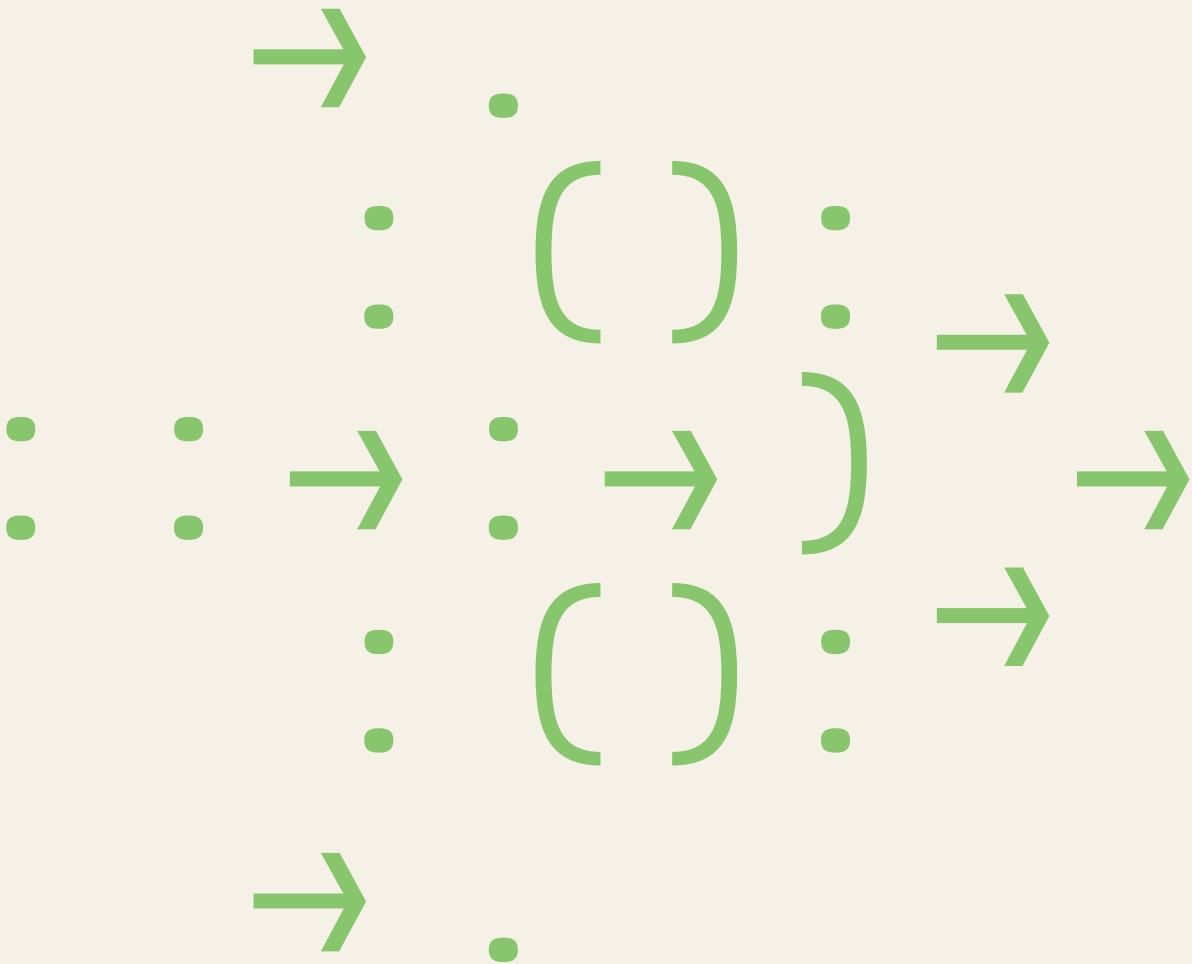


Table of Content

1. Introduction	3
2. Hidden costs: More data collection from apps purchased post-download	4
3. Consent missing, even when legally required	5
4. Less data collection from paid apps than from free apps	6

1. Introduction

In January 2025, The Danish Agency for Digital Government published the report *Educational Apps: What do You Pay With? – Data Collection from Educational Apps for Children*. Based on an analysis of 40 popular paid-for educational apps targeted at children aged 0-14, the analysis aimed to evaluate the extent of data collection by third parties after purchase.

This handout accompanies the report and presents its key insights.

Hidden costs: More data collection from apps purchased post-download

Two types of apps with different payment methods were tested: those, requiring payment before download and those offering full access through a one-time purchase or subscription after download. The analysis revealed that third parties collected data more extensively from the latter.

Consent missing, even when legally required

None of the analysed apps presented the user with a consent form. Third-party services collected data for marketing or statistical purposes from 47.5% of the apps. This practice is not compliant with the ePrivacy Directive, which requires explicit user consent for any data collection beyond what is technically necessary.

Less data collection from paid apps than from free apps

In total, third parties collected data from 67.5% of the analysed apps. A previous report, published by The Danish Agency for Digital Government, focusing on third-party data collection from 24 free mobile games, revealed that this was the case for 100% of the analysed apps.

While this handout presents some of the main findings, the report itself provides further context and implications. Furthermore, please refer to the report for the list of apps that was analysed and the methods applied to do so.

2. Hidden costs: More data collection from apps purchased post-download

Apps follow various business models, including microtransactions, ad-supported revenue from data collection, and direct payments — either one-time or subscription-based. This report analyses 40 paid apps: half require a one-time purchase before download, while full-access to the other half are bought via subscription or a one-time payment after download.

The analysis revealed that third-party services collect notably more data from the apps purchased post-download than from those purchased directly from the app store, as seen in Figure 1.

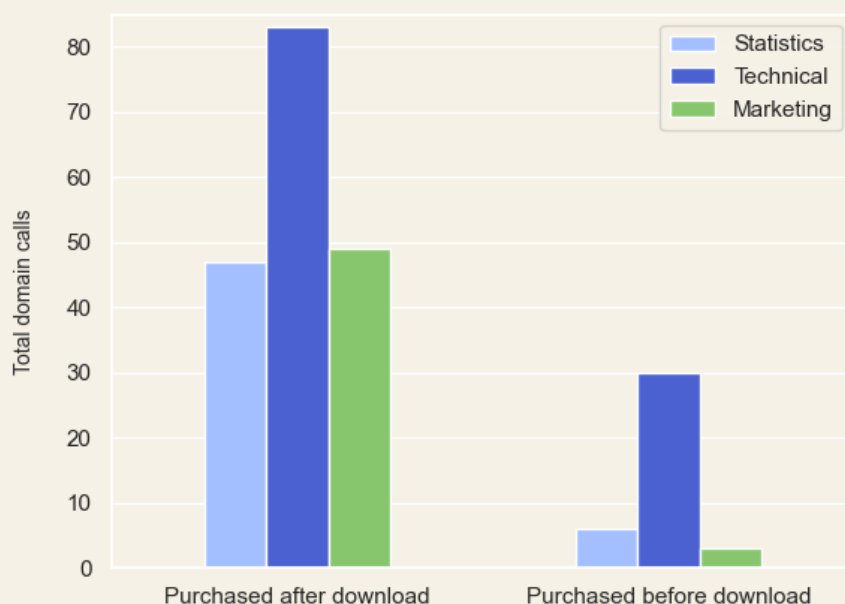


Figure 1: Total domain calls from apps purchased respectively before and after download.

Furthermore, apps that require payment after download account for **94%** of marketing-related data collection and **89%** of the data collected for statistical purposes.

An implication of this is that users may find themselves in a situation where they pay for their apps with money as well as data, raising concerns about transparency and consent in paid-for apps targeted at children.

3. Consent missing, even when legally required

Per the ePrivacy Directive, providers of digital services are required to insure valid user consent if they retrieve or store data on a users' device for purposes that are not strictly technically necessary. Consent is often obtained via a so-called 'cookie banner'.

Out of the 40 apps analysed, third-party services collected data from 27 of these (67.5%). Out of these 27 apps, third parties collect data for marketing or statistical purposes from 19 (47.5%) as seen in Figure 2. These purposes are not viewed as technical necessary; however, none of the apps obtains valid user consent, as required by law.

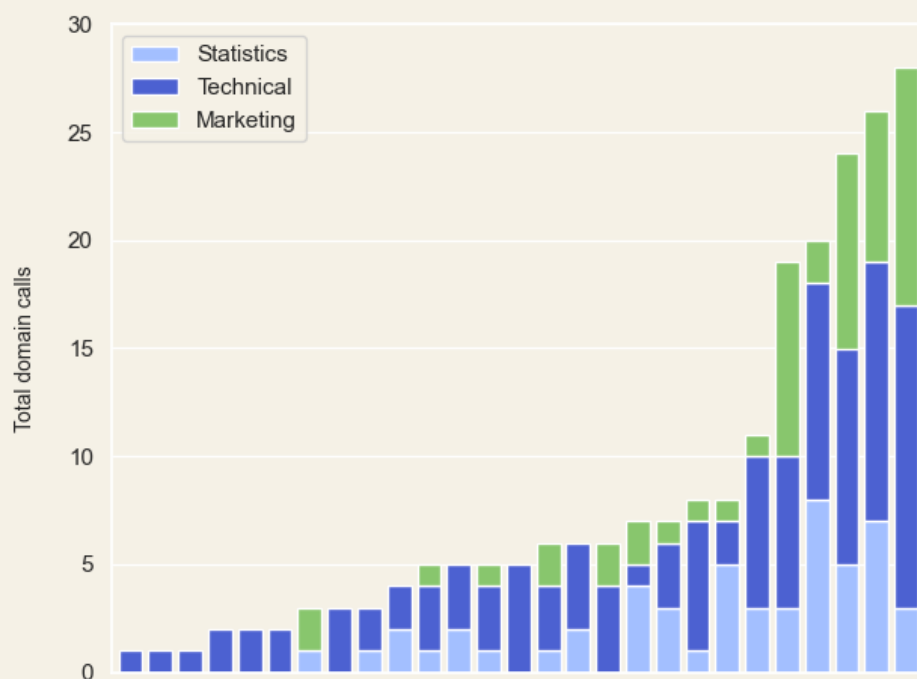


Figure 2. Domain calls per app differentiated by purpose. Each bar represents one app.

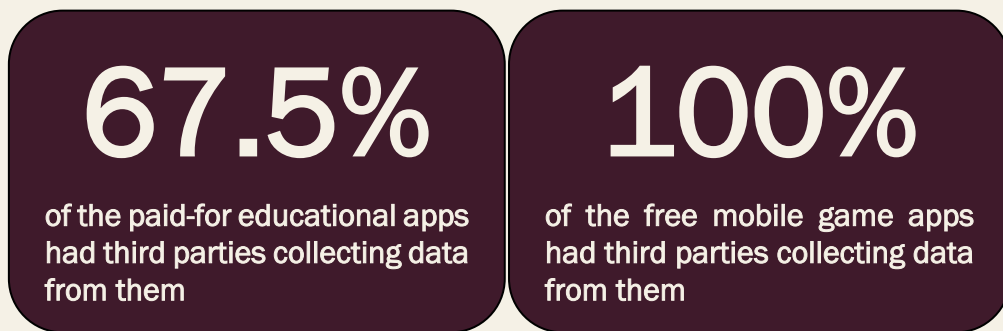
As a result, users are neither directly presented with the privacy policies of these apps nor offered an option to decline non-technically necessary tracking. This lack of transparency and control can raise privacy concerns, as users remain unaware of how their data is being collected and processed.

4. Less data collection from paid apps than from free apps

In 2024, The Danish Agency for Digital Government published the report *What Does a Free Mobile Game Cost?* This report detailed how free gaming apps aimed at children had third parties extensively collecting data from them. While free mobile games rely heavily on third-party data collection for marketing, paid educational apps collect significantly less user data.

Overall, third parties collected data from 67.5% of the paid-for educational apps. In contrast, data was collected by third-parties from 100% of the free mobile apps.

Results also showed a great difference in the amount and frequency of requests to third-party services.



The apps for both reports were tested for 15 min. each. In total, **the 40 paid-for apps made 217 domain calls to third parties** during testing, whereas **the 24 free mobile games made ~1600 domain calls**.

This difference is most likely related to the two business models applied by the mobile games and educational apps, respectively. The results indicate that users can significantly decrease data collection by third parties by purchasing their apps, thus potentially protecting their privacy.

Read the two reports by scanning the QR-code:



