

MOBILE APPS: GOOGLE VS. APPLE COPPA SCORECARD (CHILDREN'S PRIVACY)

Q1.2022



An analysis of child-directed* mobile apps
across the Google and Apple app stores



* Based on Pixalate's [methodology](#)



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A NOTE ABOUT COPPA

The Children's Online Privacy Protection Act ("COPPA") is a United States federal law passed by Congress in 1998 to protect children's online privacy. COPPA required the Federal Trade Commission ("FTC") to issue and enforce a rule implementing the law. The FTC's [COPPA Rule](#) (the "Rule") became effective in 2000, and it was [amended](#) in 2013. The FTC is presently in the [process of reviewing](#) the Rule again. COPPA is enforced by the FTC and by state Attorneys General, who have the authority to seek civil penalties from companies that violate the Rule.

KEY STATS: THE STATE OF CHILD-DIRECTED MOBILE APPS IN Q1 2022

AS MEASURED BY PIXALATE



There are **>391k child-directed** mobile apps across Google and Apple stores



Programmatic advertisers **spent 3.1x more** per app on child-directed* apps than on general audience apps**



8% of Apple App Store apps and **7%** of Google Play Store apps are child-directed*



Personal info*** is **42% more likely** to be shared w/ advertisers on child-directed apps



~40% of child-directed* mobile apps have potential access to personal info***



12k child-directed apps have potential access to personal info*** but have no detected privacy policy

* Based on Pivalate's [methodology](#)

** General audience is the term used by the FTC to describe sites and services that do not target children under 13 as a portion of the audience. See the FTC's 1999 [Statement of Basis and Purpose](#).

*** Geolocation info, persistent identifiers such as IP address or unique device identifier, and photo, video or audio files containing a child's image or voice are all considered personal info under COPPA. See [COPPA Rule](#) at 16 C.F.R. § 312.2 for more.

GOOGLE VS. APPLE: SCORECARD FOR CHILDREN'S PRIVACY (Q1 2022)

AS OF THE END OF Q1 2022; AS SCORED BY PIXALATE

Child-Directed Apps With...	Google 	Apple 
Total	226,483 7% of all apps	165,172 8% of all apps
Undetected Privacy Policy	24,974 11% of child-directed	34,824 21% of child-directed
Potential Personal Info Access	98,948 44% of child-directed apps	64,780 39% of child-directed apps
GPS Transmitted to the Ad Industry	11,628 5% of child-directed	6,907 4% of child-directed
Residential IP Transmitted to the Ad Industry	11,067 5% of child-directed	6,289 4% of child-directed
Request Camera Access	62,641 28% of child-directed	44,476 27% of child-directed
Undetected Privacy Policy & Camera Access	19 0.01% of child-directed	4,460 2.7% of child-directed
Undetected Privacy Policy & Potential Personal info Access	2,178 1% of child-directed	9,819 5.9% of child-directed
Undetected Privacy Policy & GPS Transmitted	517 0.2% of child-directed	517 (0.4% of child-directed)
Undetected Privacy Policy & Res. IP Transmitted	635 0.3% of child-directed	1,180 (0.7% of child-directed)
Undetected Privacy Policy & Potential Personal Info Access & GPS & Res. IP Transmitted	34 (0.02% of child-directed)	132 (0.1% of child-directed)

Chart shows # of child-directed apps and overall % of child-directed apps in parenthesis



CHILD-DIRECTED APPS ON THE GOOGLE & APPLE APP STORES

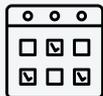
The scale of child-directed apps and how often personal data is shared on those apps



App Store

~8%

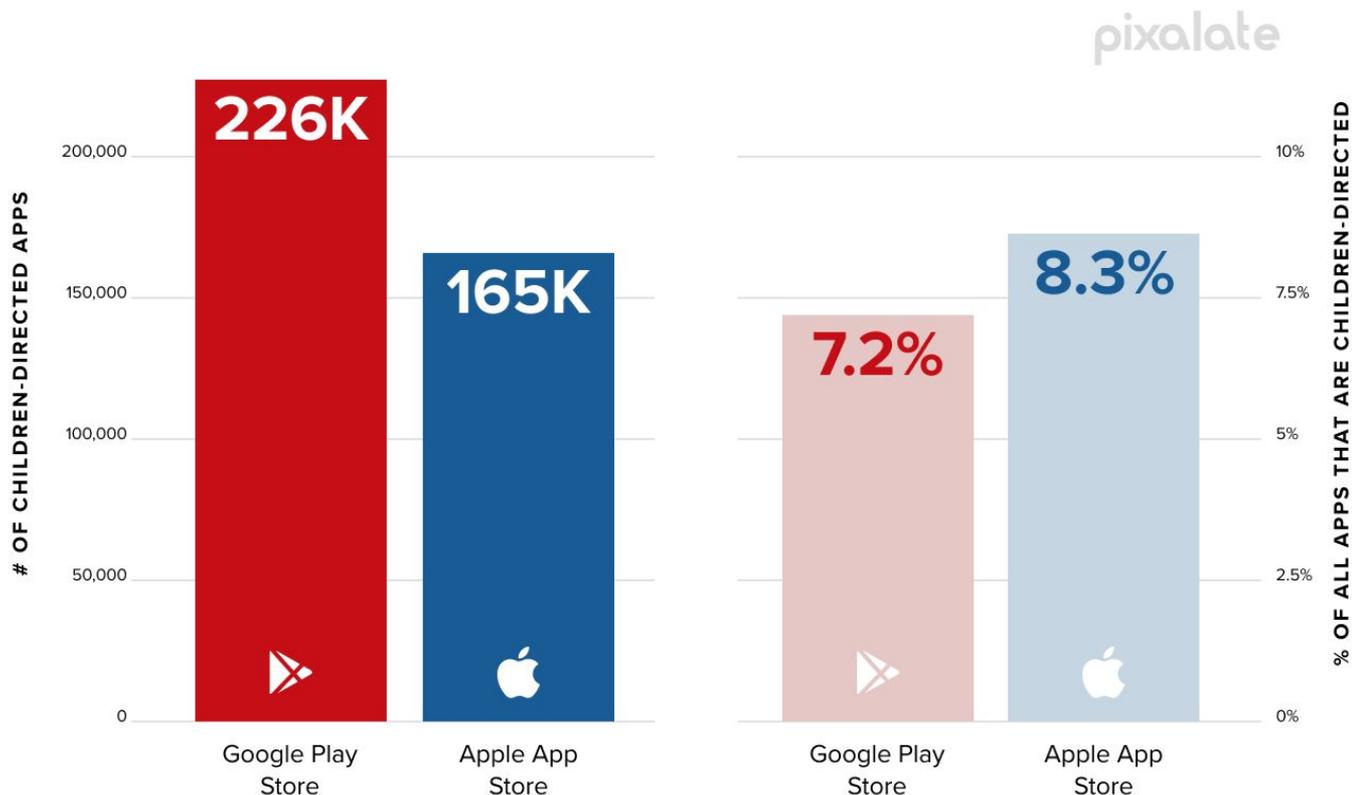
of all apps (7.2% on Google Play Store and 8.3% on Apple App Store) are child-directed as of Q122, according to Pivalate's data



Want to see all the apps? Schedule a demo: pival.at/demo

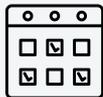
379K CHILD-DIRECTED APPS ON GOOGLE & APPLE APP STORES

AS OF THE END OF Q1 2022; AS MEASURED BY PIXALATE



47%

Of the top 1k most popular apps in the Google Play Store transmitted location and personal IP addresses in the ad bid stream during Q122, according to Pivalate's data

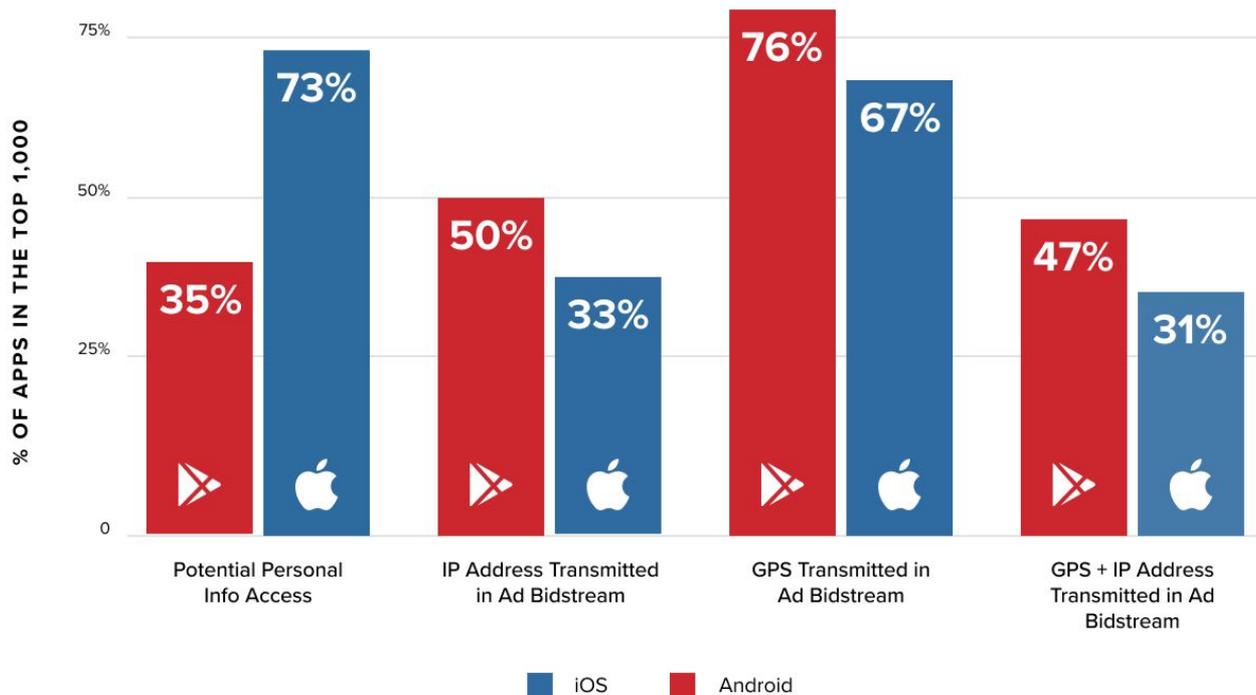


Want to see all the apps? Schedule a demo: pival.at/demo

67%+ OF THE TOP 1K CHILD-DIRECTED APPS TRANSMIT LOCATION

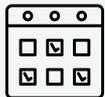
Q1 2022; AS MEASURED BY PIXALATE; 'TOP' APPS BASED ON DOWNLOADS (GOOGLE STORE) OR USER RATINGS (APPLE STORE)

pixalate



3.1x

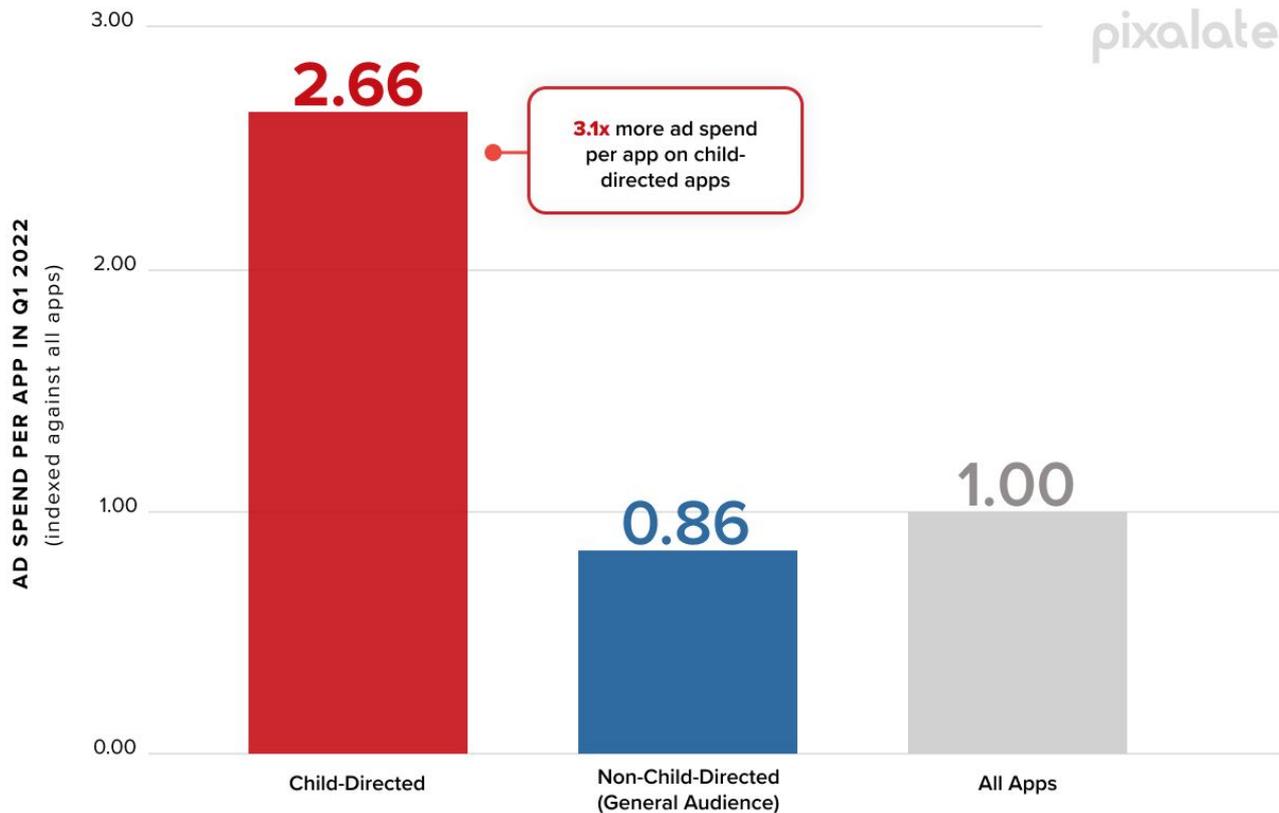
more ad spend per app on child-directed apps (compared to general audience apps) in Q1 2022, according to Pixelate's estimates



Want to see all the apps? Schedule a demo: pixelate.at/demo

ADVERTISERS SPEND 3.1X MORE ON CHILD-DIRECTED APPS VS. GENERAL AUDIENCE APPS

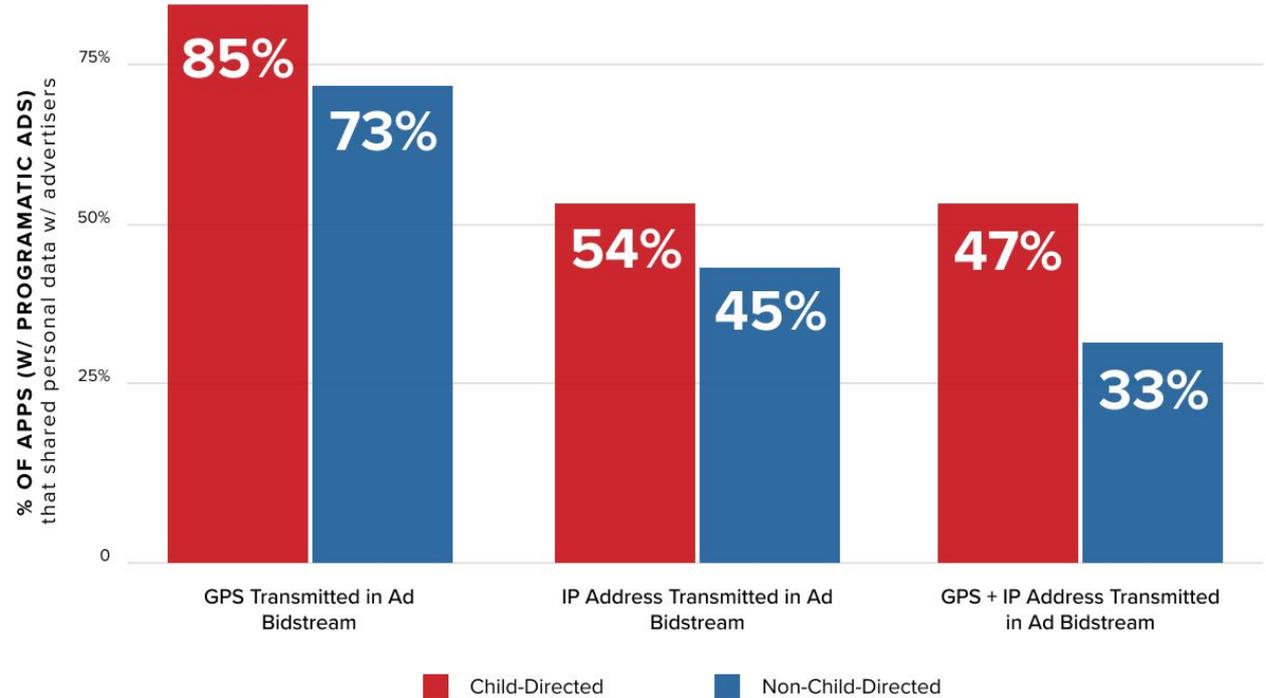
AD SPEND PER APP IN Q1 2022; INDEXED AGAINST ALL APPS (GOOGLE AND APPLE APP STORES); AS MEASURED BY PIXELATE



CHILD-DIRECTED APPS ARE MORE LIKELY TO SHARE SENSITIVE USER DATA WITH ADVERTISERS

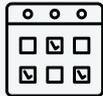
AMONG APPS WITH PROGRAMMATIC ADS IN Q1 2022: AS MEASURED BY PIXALATE

pixalate



+42%

Child-directed apps are 42% more likely to share both GPS and IP address with third-party digital advertisers than non-child-directed apps

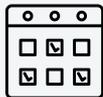


Want to see all the apps? Schedule a demo: pixal.at/demo



+4%

~4% increase in the # of child-directed apps across Google/Apple app stores with either no country of registration or a country of registration that was not identifiable by Pixalate

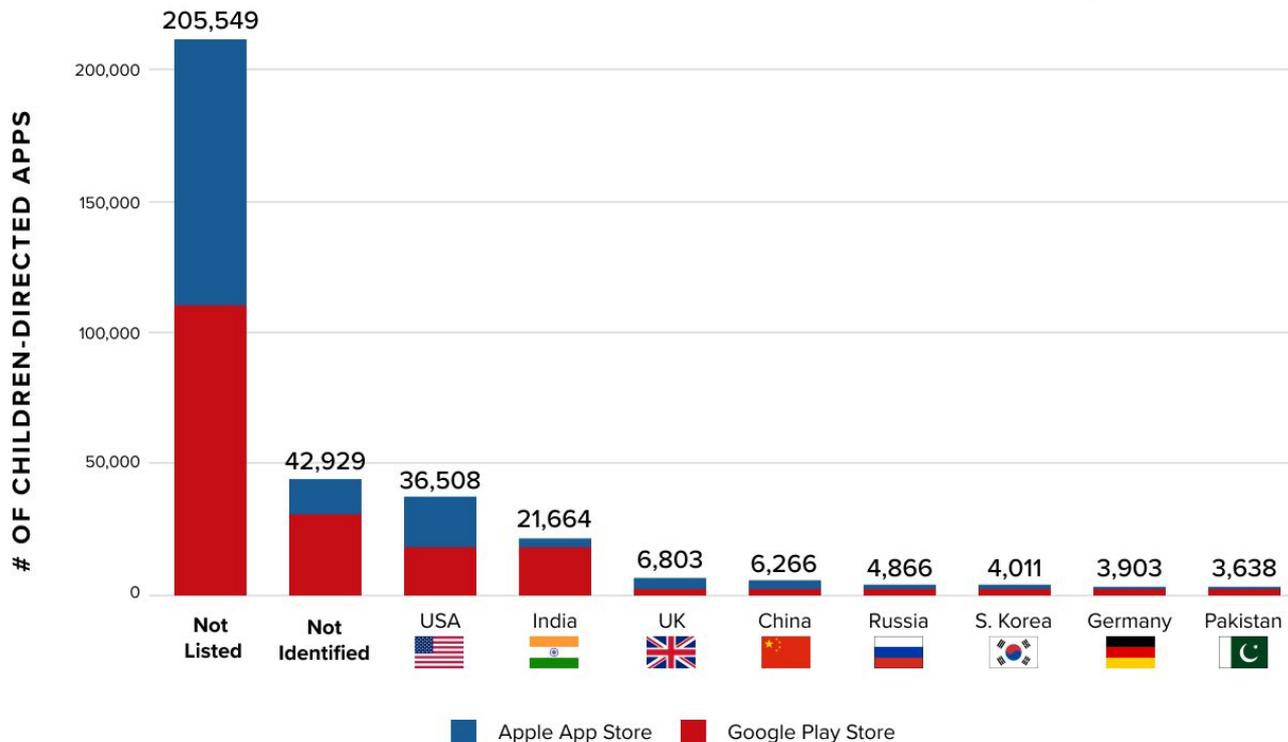


Want to see all the apps? Schedule a demo: pixal.at/demo

>248K CHILD-DIRECTED APPS FROM UNKNOWN COUNTRIES

AS OF THE END OF Q1 2022; AS MEASURED BY PIXALATE

pixalate



THE DATA 'DARK ZONE' ON CHILD-DIRECTED APPS

Apps with no detected privacy policy but access to and/or transmission of personal information

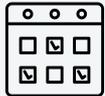


App Store

* Geolocation information, persistent identifiers such as IP address or unique device identifier, and photo, video or audio files containing a child's image or voice are all considered personal information under COPPA. See [COPPA Rule](#) at 16 C.F.R. § 312.2 for more.

~40%

of child-directed apps across Google/Apple have potential access to personal information through the device permissions they request

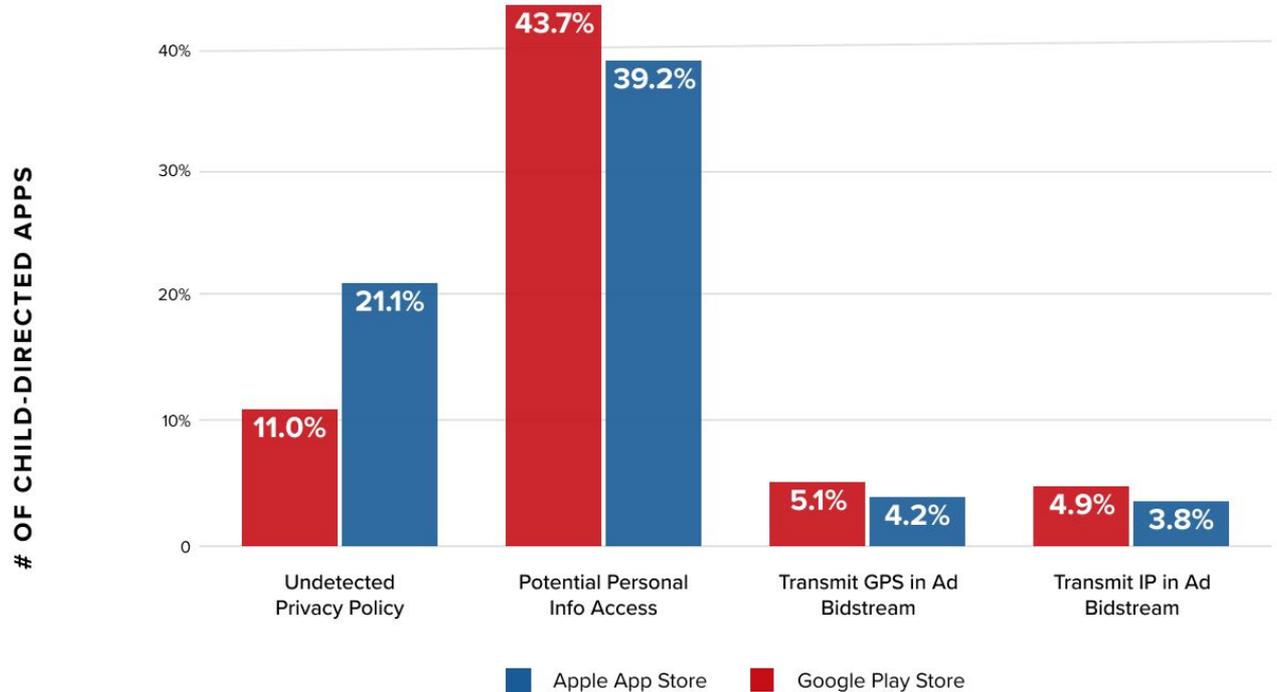


Want to see all the apps? Schedule a demo: pixal.at/demo

>40% OF CHILD-DIRECTED APPS HAVE POTENTIAL ACCESS TO PERSONAL INFO VIA DEVICE PERMISSIONS

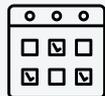
AS OF THE END OF Q1 2022; AS MEASURED BY PIXALATE

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11,997

Child-directed apps across Google/Apple have potential access to personal information but no detected privacy policy as of Q122 (a slight improvement from 12.7k such apps in Q421)

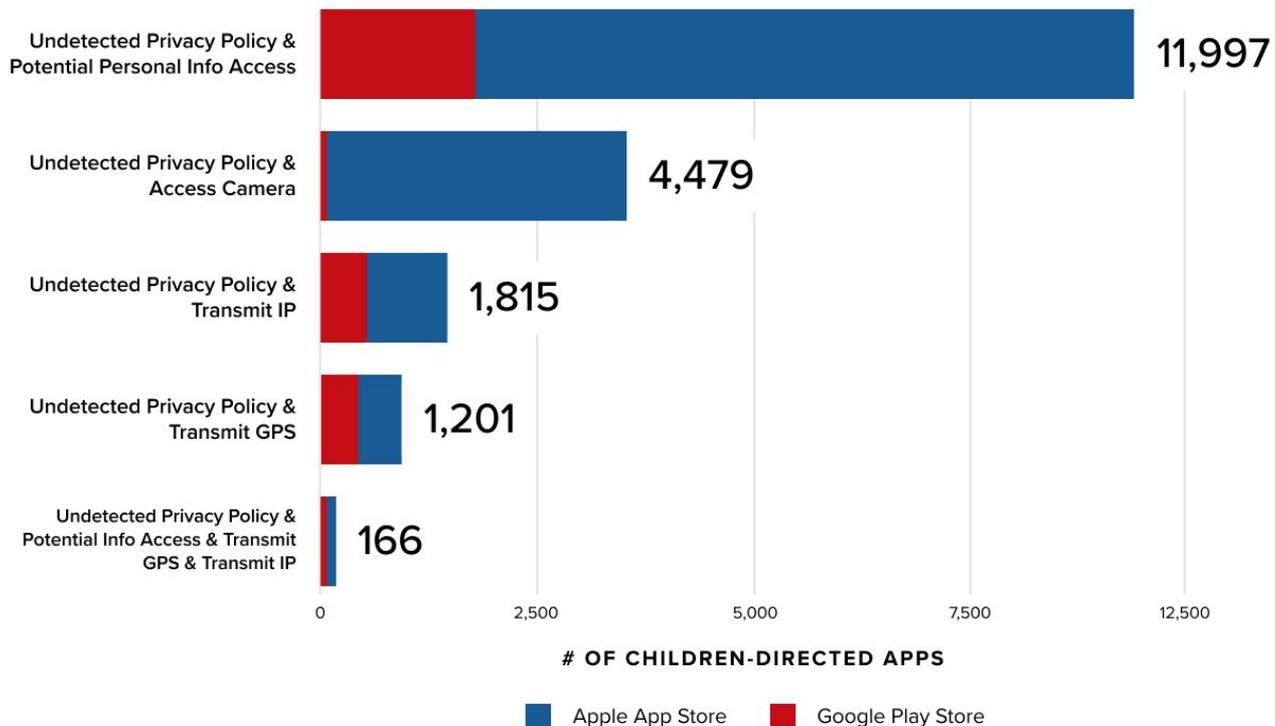


Want to see all the apps? Schedule a demo: pixal.at/demo

~12K CHILD-DIRECTED APPS HAVE POTENTIAL ACCESS TO PERSONAL INFO BUT NO DETECTED PRIVACY POLICY

AS OF THE END OF Q1 2022; AS MEASURED BY PIXALATE

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METHODOLOGY & DISCLAIMER



Health



5G

METHODOLOGY

General

Pixalate's data science and analyst team analyzed apps available for download via the Apple App Store and Google Play Store as of the last date of Q1 2022 (March 31); data derived from crawls of the respective app stores performed by Pixalate or one of Pixalate's third party licensors.

Country of Registration

The country of registration for a given app is determined only if a) the app has a physical address published in its app store page, or otherwise b) from the registrant physical address of the publisher domain listed in the app store page excluding privately registered ones. If none of them is available, the physical address associated with an app cannot be determined. Sometimes, the same developer may list different countries of registration for different apps.

Child-Directed Apps

Pixalate uses automated processing derived from a combination of signals (which at times is coupled with human intervention) to determine if an app is likely to be child-directed, including the app's category, sub-category, content rating, and contextual signals (specifically, child-related keywords in app's title or the app's description). [See our full methodology](#) for more.

General Audience Apps

General audience is the term used by the FTC to describe sites and services that do not target children under 13 as a portion of the audience. See the [FTC's 1999 Statement of Basis and Purpose](#).

Personal Data

Mobile apps request access to certain device permissions in order to operate, such as access to location services, access to the contact list, etc. In many cases, not all the permissions are used by the app that requests access to them, and very often, many permissions requested

METHODOLOGY (CONT.)

Personal Data (continued)

might not even be needed for the normal operation of the app (e.g. GPS coordinates might be necessary for a weather app, but not for a drawing app). However, the fact that access to certain permissions has been requested creates additional risks since the permissions can be used at any time in the future. Pivalate has classified the most common mobile apps in terms of their COPPA risk, i.e. the risk to expose sensitive data. The COPPA sensitive permissions highlighted in this report include access to the device's camera and access to the device's location (including latitude and longitude coordinates). See the full list [here](#).

Privacy Policy

An app is considered to have a detectable Privacy Policy if crawls of the Google or Apple app stores from Pivalate or one of Pivalate's third party licensors found proof of a privacy policy. Otherwise, the app is considered to have either no or an undetected Privacy Policy.

Estimated Ad Spend

Pivalate calculates estimated programmatic ad spend through statistical models that incorporate programmatic monthly active users (MAU), the average session duration per user, the average CPM for the category of a given app, and ad density.

DISCLAIMER

The content of this report reflects Pivalate’s opinions with respect to the factors that Pivalate believes can be useful to the digital media industry. Any data shared is grounded in Pivalate’s proprietary technology and analytics, which Pivalate is continuously evaluating and updating. Pivalate’s opinions are just that, opinions, which means that they are neither facts nor guarantees.

It is important to note that the mere fact that an app appears to be directed to children (e.g., data subjects under 13 years of age, as defined by COPPA), does not mean that any such app, or its operator, is failing to comply with COPPA. Further, with respect to apps that appear to be directed to children and have characteristics that, in Pivalate’s opinion, may trigger related privacy obligations and/or risk, such assertions reflect Pivalate’s opinions (i.e., they are neither facts nor guarantees); and, although Pivalate’s methodologies used to render such opinions are derived from automated processing, which at times is coupled with human intervention, no assurances can be – or are – given by Pivalate with respect to the accuracy of any such opinions.

Pivalate is sharing this data not to impugn the standing or reputation of any entity, person or app, but, instead, to render opinions and report trends pertaining to apps available for download via the official Apple App Store and Google Play Store.

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ABOUT PIXALATE

Pixalate is the market-leading fraud protection, privacy, and compliance analytics platform for Connected TV (CTV) and Mobile Advertising. We work 24/7 to guard your reputation and grow your media value. Pixalate offers the only system of coordinated solutions across display, app, video, and OTT/CTV for better detection and elimination of ad fraud.

Pixalate is an MRC-accredited service for the detection and filtration of sophisticated invalid traffic (SIVT) across desktop and mobile web, mobile in-app, and OTT/CTV advertising. www.pixalate.com

 www.linkedin.com/company/pixalate/

 <https://www.facebook.com/pixalate>

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info@pixalate.com

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