

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

Q 4 . 2 0 2 1



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



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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 "COPPA Rule" or 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 2021

AS OF THE END OF Q4 2021; AS MEASURED BY PIXALATE



There are **>379k child-directed** mobile apps across Google and Apple stores



**~63%** of child-directed mobile apps are from unknown countries



**9%** of Apple App Store apps and **7%** of Google Play Store apps are child-directed



**~40%** of child-directed mobile apps also access personal information














**12.7k** child-directed apps access personal info but have no detected privacy policy



**~22%** of App Store child-directed apps have no detected privacy policy

# GOOGLE VS. APPLE: SCORECARD FOR CHILDREN'S PRIVACY (Q421)

AS OF THE END OF Q4 2021; AS MEASURED BY PIXALATE

Child-Directed Apps w/	Google	Apple
<b>Total</b>	215,230 (7% of all apps are child-directed) 	163,857 (9% of all apps are child-directed)
<b>Undetected Privacy Policy</b>	25,521 child-directed apps (12% of child-directed) 	35,906 child-directed apps (22% of child-directed apps)
<b>Personal Info Access</b>	93,009 (43% of child-directed)	 64,042 (39% of child-directed)
<b>GPS Transmitted</b>	14,719 (7% of child-directed)	 8,385 (5% of child-directed)
<b>IP Transmitted</b>	10,240 (5% of child-directed) 	 7,662 (5% of child-directed)
<b>Undetected Privacy Policy &amp; Personal Info Access</b>	2,470 (1% of child-directed) 	10,216 (6% of child-directed)
<b>Undetected Privacy Policy &amp; GPS Transmitted</b>	1,033 (0.5% of child-directed) 	975 (0.6% of child-directed)
<b>Undetected Privacy Policy &amp; IP Transmitted</b>	800 (0.4% of child-directed) 	1,619 (1% of child-directed)
<b>Undetected Privacy Policy &amp; Personal Info Access &amp; GPS Transmit &amp; IP Transmit</b>	65 (.03% of child-directed) 	227 (.14% of child-directed)
<b>Undetected Privacy Policy &amp; Camera Access</b>	24 (.01% of child-directed) 	4,615 (2.82% of child-directed)

# CHILD-DIRECTED APPS ON THE GOOGLE & APPLE APP STORES

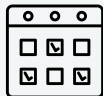
The scale of child-directed apps - and how often personal data is shared on those apps



App Store

# ~8%

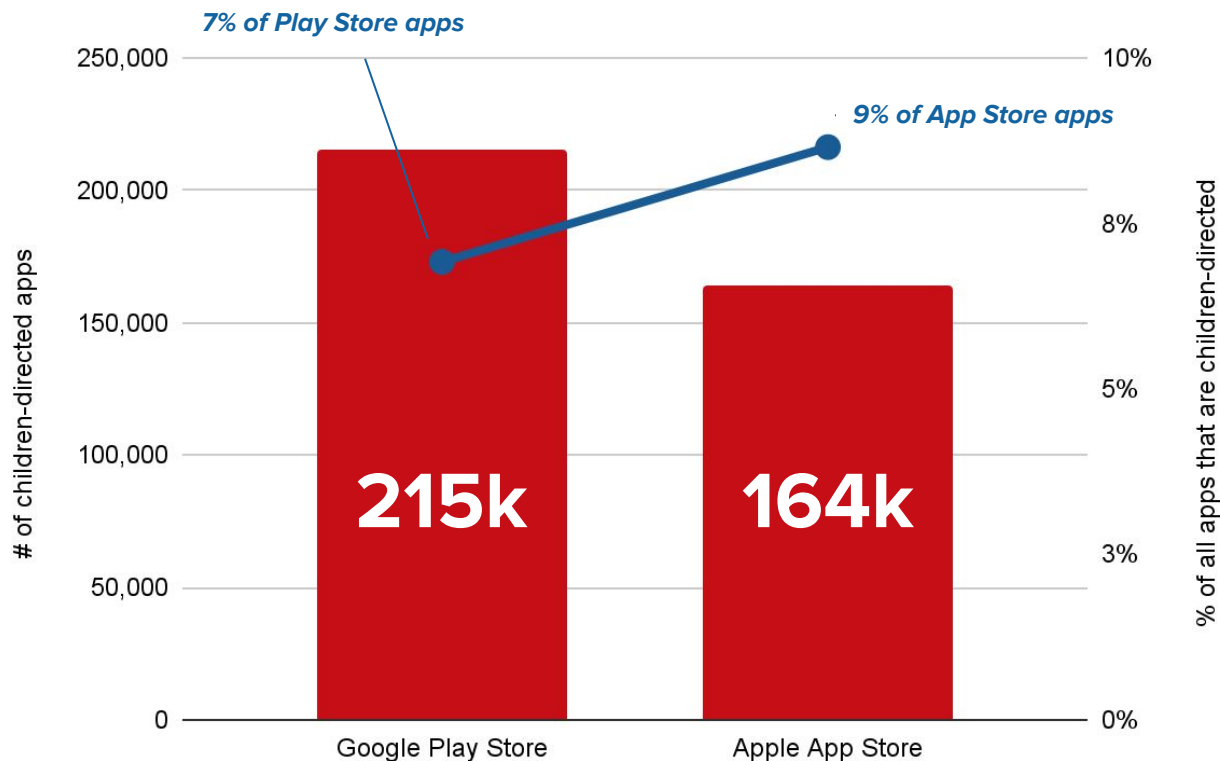
of all apps (7% on Google Play Store and 9% on Apple App Store) are child-directed as of Q421, according to Pixalate's data



Want to see all the apps? Schedule a demo: [pixal.at/demo](https://pixal.at/demo)

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

AS OF THE END OF Q4 2021; AS MEASURED BY PIXALATE



# ~63%

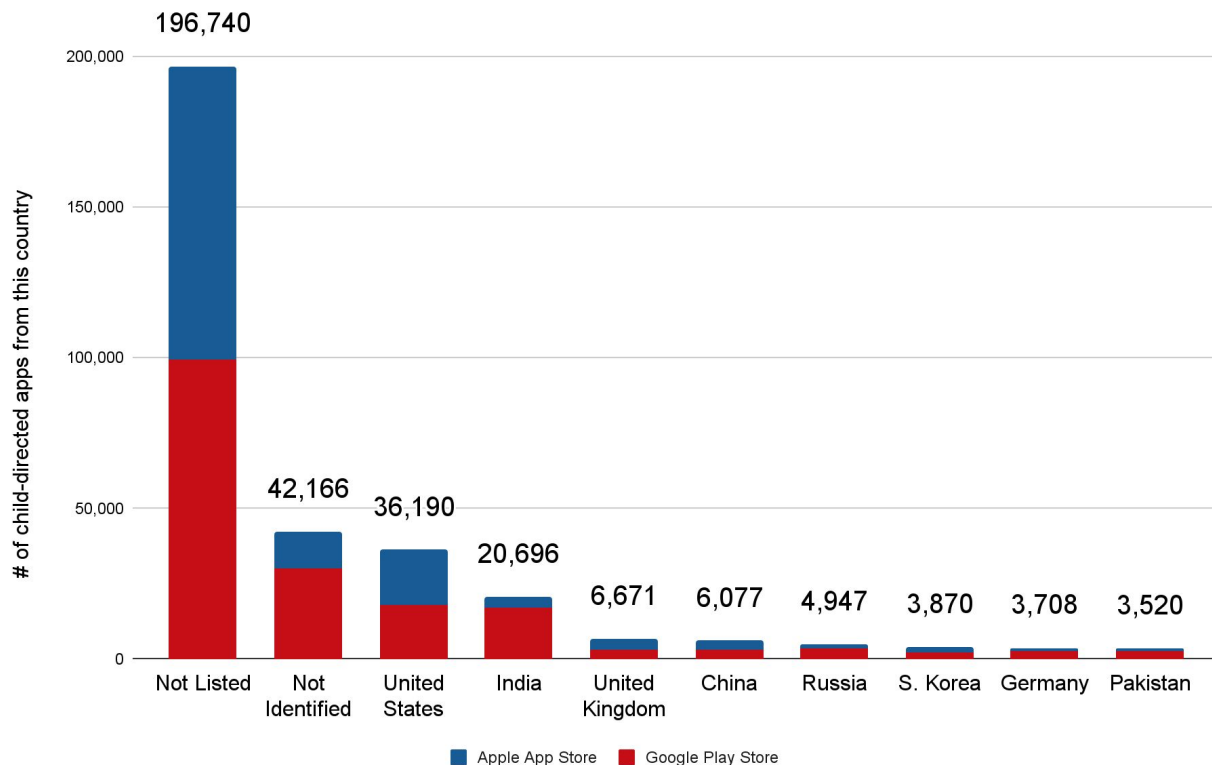
The percentage of child-directed apps across both the Google Play Store and Apple App Store as of the end of 2021 that had either no country of registration or a country of registration that was not identifiable by Pixalate



Want to see all the apps? Schedule a demo: [pixal.at/demo](https://pixal.at/demo)

## >238K CHILD-DIRECTED APPS FROM UNKNOWN COUNTRIES

AS OF THE END OF Q4 2021; AS MEASURED BY PIXALATE



# 3.4B

Number of downloads of Russian or Chinese child-directed apps from the Google Play Store as of the end of 2021

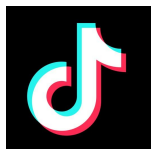


Want to see all the apps? Schedule a demo: [pixal.at/demo](https://pixal.at/demo)

## TOP CHILD-DIRECTED APPS FROM CHINA & RUSSIA

OF APPS AVAILABLE FOR DOWNLOAD FROM THE APP STORES IN Q4 2021; 'TOP' BASED ON DOWNLOADS (ANDROID) OR USER RATINGS (IOS)

### Google Play Store



TikTok

Country: China  
(Singapore in store)  
Downloads: 1B+



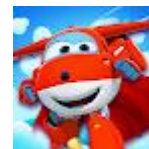
Children's doctor:  
dentist.

Country: Russia  
Downloads: 100MM+



Bubble Shooter  
Legend

Country: China  
Downloads: 50MM+



Super Wings : Jett Run

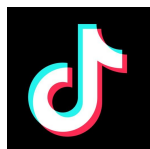
Country: China  
Downloads: 50MM+



Bubble Shooter

Country: China  
Downloads: 50MM+

### Apple App Store



TikTok

Country: China



Sandbox - Pixel Art  
Coloring

Country: Russia



Animal Crossing:  
Pocket Camp

Country: China



LINE ポコポコ

Country: China



开心糖果猫 - 2021全民益智消除游戏

Country: China





# THE DATA 'DARK ZONE' ON CHILD-DIRECTED APPS

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

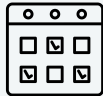


App Store

\* 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.

# 85%

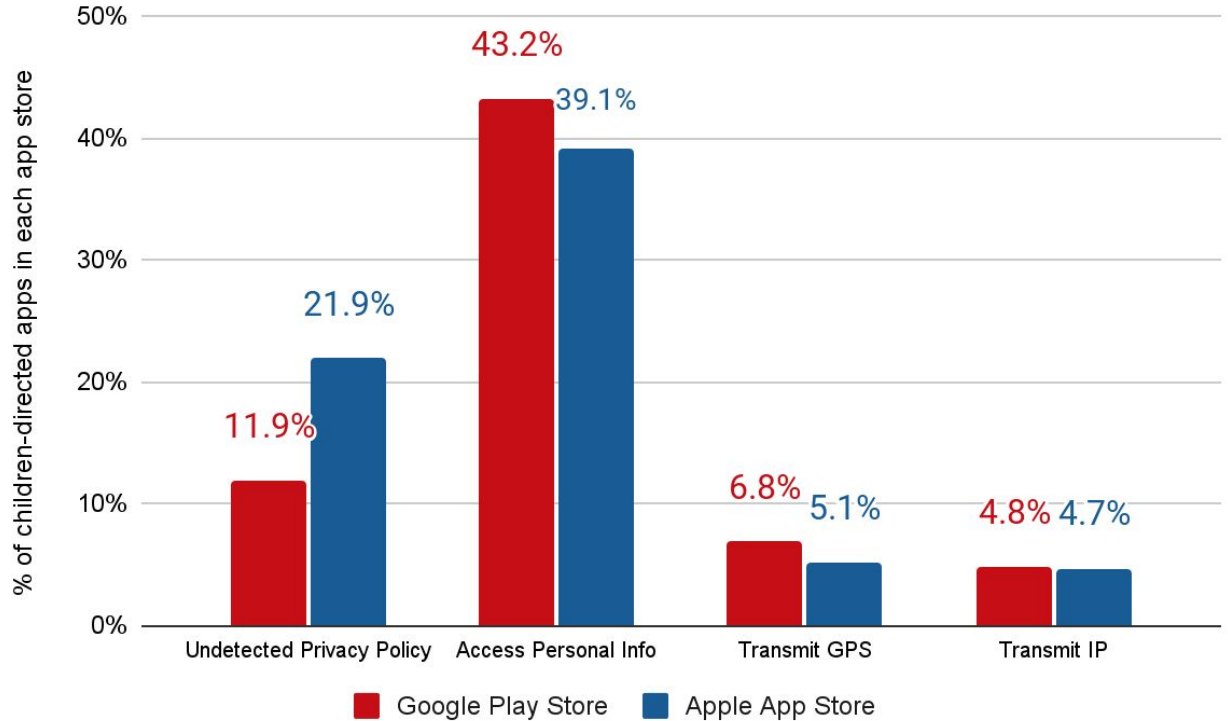
Child-directed apps on the Apple App Store are 85% less likely to have a detected privacy policy than child-directed apps on the Google Play Store



Want to see all the apps? Schedule a demo: [pixal.at/demo](https://pixal.at/demo)

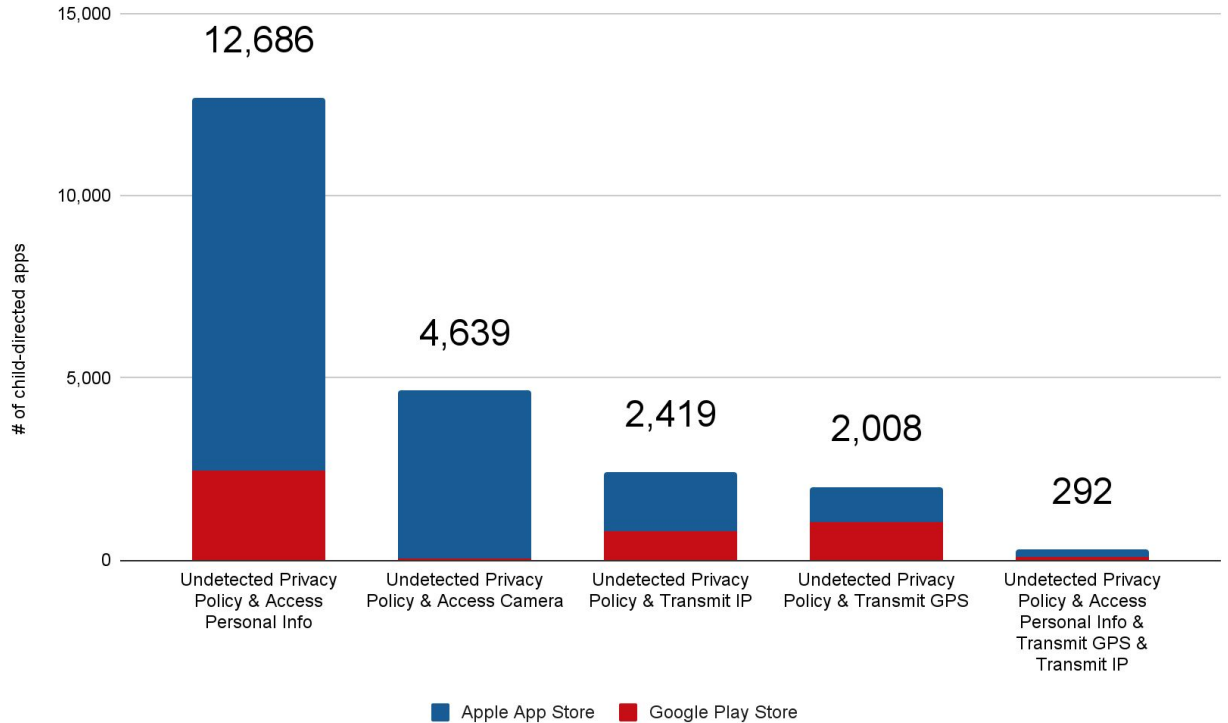
## 40% OF CHILD-DIRECTED APPS ACCESS PERSONAL INFO\*

AS OF THE END OF Q4 2021; AS MEASURED BY PIXALATE



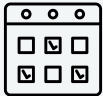
# >2K CHILD-DIRECTED APPS TRANSMIT GPS DATA WITHOUT A DETECTED PRIVACY POLICY

AS OF THE END OF Q4 2021; AS MEASURED BY PIXALATE



# 12,686

Child-directed apps across the Google and Apple app stores that access personal information but have no detected privacy policy



Want to see all the apps? Schedule a demo: [pixal.at/demo](https://pixal.at/demo)



\* 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.

# 292

# of child-directed apps across Google & Apple stores w/ no detected privacy policy that transmit personal data, GPS, and IP as of Q421. Here are the top 5.



Want to see all the apps? Schedule a demo: [paxlate.com/demo](https://paxlate.com/demo)

## CHILD-DIRECTED APPS THAT ACCESS & TRANSMIT PERSONAL INFO\*

OF APPS AVAILABLE FOR DOWNLOAD FROM THE APP STORES IN Q4 2021; 'TOP' BASED ON DOWNLOADS (ANDROID) OR USER RATINGS (IOS)

### Top 5 most-downloaded Google Play Store apps for children w/ no detected privacy policy that access personal information and transmit both IP and GPS data



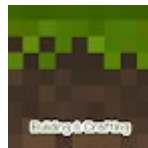
**Fashion Challenge: Life Design**

Country: Russia  
Downloads: 5MM+



**Muscle Land**

Country: Unidentified  
Downloads: 1MM+



**Minecraft 2021 - New Building & Crafting 3D**

Country: Unidentified  
Downloads: 500K+



**Fashion Challenge: Life Design**

Country: Not Listed  
Downloads: 100K+



**Fashion Challenge: Life Design**

Country: Not Listed  
Downloads: 100K+

### Top 5 most-reviewed Apple App store apps for children w/ no detected privacy policy that access personal information and transmit both IP and GPS data



**Geometry Dash Mettdown**

Country: Sweden



**White Tiles 4: Piano Master 2**

Country: China



**Galactic Craft Mods Guide for Minecraft PC**

Country: Not Listed



**King Tongue**

Country: France



**Learn English Vocabulary Pop Quiz**

Country: Unidentified



# METHODOLOGY & DISCLAIMER



Health

# 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 Q4 2021 (December 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 a combination of signals (coupled with significant 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).

## 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 from the app that requests access to them, and very often, many permissions requested 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 for children). 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. Pixalate has classified the most common mobile app

# METHODOLOGY (CONT.)

## Personal Data (continued)

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).

## 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.

# 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. Any references to outside sources should not be construed as endorsements. 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 (i.e., data subjects under 13 years of age, as defined by the COPPA Rule) does not mean that any such app, or its operator, is failing to comply with the COPPA Rule. Further, with respect to apps that appear to be child-directed 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 a combination of automated processing coupled with significant 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](http://www.pixalate.com)

 [www.linkedin.com/company/pixalate/](http://www.linkedin.com/company/pixalate/)

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

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# THANK YOU!

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