

Report on Android Device Customization and Consumers' Choices

European Consumer Study of 4000 Android Users based in France, Germany, Italy and Spain November 2016

Android users are able to choose from over 2.2 million apps in the Google Play store¹. There are countless ways that users can customize their phones and use the apps they want. Mobile apps are created by developers to serve the needs of consumers; like any other product, they identify a problem and come up with a solution, then compete with other solutions on the market by trying to create their own unique brand or niche. Also like any other product, there are category leaders that are widely, but not exclusively, used.

In order to more closely investigate app usage and the degrees of customization, the Application Developers Alliance surveyed 4,000 Android users in France, Germany, Italy and Spain. Respondents were asked which apps they use to meet certain needs, how they organize their apps on their phone, and their thoughts on apps that come pre-loaded on the device.

We found that apps, even category leaders, tend not to be exclusively used; that almost all Android users customize their phone and their home screen in some way; and that most Android users prefer their device come "ready-to-go" with some apps preloaded. As a result, there is a significant amount of competition in the mobile app industry: for downloads, for users, and for placement on their home screen, regardless of the presence of pre-loaded apps.

Android Users Download a Lot of Apps

Android users vary significantly, making customization important. Some prefer only basic functions (perhaps, just phone and email in the case of a work device); others prefer as many apps as the device will hold. Around 32% have downloaded more than 26 additional apps on their device; 6% downloaded more than 60 apps.

27% of European Android users add at least one app store on their smartphone and 25% users download at least one alternative browser, in addition of those already preinstalled.

¹ https://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/

Android Users Are Not Exclusive About App Use

We looked specifically at 14 categories/functions: SMS texting, non-SMS messaging, video/voice calls, social media, shopping, hotels, flights, dining, email, productivity, notes, cloud storage, music, streaming video, and e-Reading. For each category, respondents were able to choose which apps they use to complete those functions, or write-in one. The detailed results in each category are in the Appendix.

Most apps, even category leaders, aren't used exclusively. **A majority of users of almost every top app also uses another competing app in the same category.** Android users use a wide range of apps to communicate on their phones. For example, they have 2,2 messaging apps (excluding the SMS ones) installed on their phone.

| Apps | Pan-EU | France | Germany | Italy | Spain |
|-----------------------|--------|--------|---------|-------|-------|
| WhatsApp | 72% | 29% | 81% | 86% | 91% |
| Facebook Messenger | 48% | 55% | 44% | 51% | 41% |
| SnapChat | 16% | 24% | 12% | 11% | 17% |
| Google Hangout | 12% | 12% | 11% | 11% | 13% |
| Telegram | 11% | 2% | 6% | 14% | 21% |

Messaging apps installed on Android phones

To do find and purchase products or services online, whilst there are a few apps that are most used to shop, there is a huge, growing, long-tail that are also used. For example, if **67% of European consumers use the Amazon app and 50% the eBay app for shopping, they are using an average of 3 shopping apps** including a lot of local companies:

| Apps | France | Germany | Italy | Spain |
|---------------------------|---------------|------------------------|------------------------|------------------------|
| #1 | Amazon | Amazon | Amazon | Amazon |
| | (58%) | (64%) | (79%) | (64%) |
| #2 | Google Search | eBay | eBay | eBay |
| | (40%) | (59%) | (60%) | (52%) |
| #3 | eBay (31%) | Google Search (38%) | Google Search (46%) | Google Search (42%) |
| #4 | PriceMinister | Otto | Groupon | Wallapop |
| | (20%) | (17%) | (29%) | (33%) |
| #5 | Vente-Privee | Zalando | Privalia | Milanuncios |
| | (19%) | (14%) | (13%) | (30%) |
| #6 | LeBonCoin | Shpok | Wish | SegundaManos |
| | (18%) | (11%) | (12%) | (17%) |
| Average # of apps used | 3 | 2,8 | 3 | 3,4 |

Which apps are used to search, review or purchase a product

Android users are enjoying a wide competition in the music sector with a lot of apps used. While Deezer is the most used app in France, Spanish Android users are the biggest fans of Spotify. Samsung music, which is preloaded on all Samsung phones by the device manufacturer, is used by 11% of Android users in Europe.

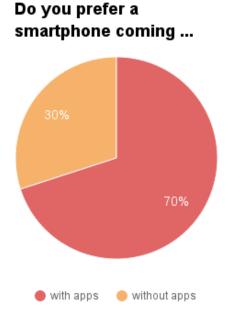
| Apps | Pan-EU | France | Germany | Italy | Spain |
|------------------|--------|--------|---------|-------|-------|
| Spotify | 30% | 17% | 23% | 29% | 51% |
| Youtube | 26% | 20% | 20% | 31% | 28% |
| Play Music | 20% | 17% | 16% | 23% | 25% |
| Shazam | 18% | 14% | 12% | 26% | 22% |
| Deezer | 13% | 31% | 9% | 5% | 6% |
| Soundcloud | 13% | 9% | 14% | 10% | 17% |
| Samsung Music | 11% | 10% | 13% | 13% | 10% |
| Amazon Music | 8% | 4% | 15% | 6% | 5% |
| Apple Music | 7% | 2% | 5% | 3% | 5% |

Which app(s) do you use to listen to music?

This non-exclusivity is a norm, even in the email apps. Android users use an average of 1,7 differents apps including Gmail (70%), Microsoft Outlook (33%) and Yahoo Mail (15%). In Germany, where Gmail is used by half of the users, 27% of Android users have a Web.de app, 24% opted also for GMX.

Non-exclusivity demonstrates competitiveness. Even if there is a clear category leader (like Amazon or an app that came with the device), and even if most people are using Amazon to do shopping, **there is room for a competing app to get noticed, get downloaded, and get used by consumers**. This significantly lowers the bar for competition – app developers don't have to beat Amazon. They only have to provide a shopping experience that is unique from Amazon (and other competing apps) that fills a need.

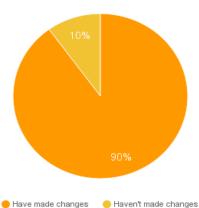
Impact of Pre-Loaded Apps Mitigated by Customization



Customization is very important – the feeling that the device you own and use every day is truly "yours", set up just the way you like for ease of use and familiarity. That's why **90% of Android users make at least some adjustment to their home screen**, and only 10% leave the suite of apps that comes with the phone untouched. **70% of Android users prefer to buy an Android device with basic apps already loaded**. The number is growing to 74% in Italy and 77% in Spain.

The reasons for this are simple (and somewhat overlapping): 39% like the ease and convenience of having apps pre-loaded, while 36% like having a device that's ready for use as soon as they get it.

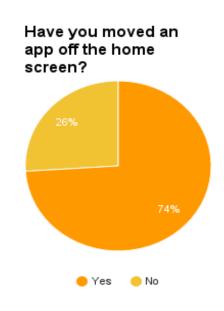
Of the 30% that don't like pre-loaded apps, the biggest reason (46%) is because they prefer to customize and choose apps themselves.



Have you made changes to your Android home screen? For **74% of Android users, this means moving a pre-loaded app off the home screen**. Another half (52%) of users say they move pre-loaded apps they don't use into a folder.

And 44% of users have already changed the default app to perform a task (changing the default search engine, default browser, default photos gallery, etc.).

The home screen on an Android is where users prefer to store their most frequently used apps. We asked respondents to tell us the content of their home screen. Of the actual listings of apps that we received, we found enormous variety:



around 2,000 unique apps were reported in total, with over a 100 different apps popular enough to appear on at least dozen home screens. WhatsApp appears the most often. 40% of the respondents said they put this communication app on their home screen, the second one being Facebook (30%) followed by a long tail of apps (including Youtube, Gmail, Google Search, Instagram, Amazon, etc.) appearing on less than 15% of the smartphone's main screen.

Conclusions

Android users benefit from the high amount of competition in the mobile app space – in every category there are numerous apps to choose from to serve whatever need they have (and if a need is unmet, that's an opportunity for an app developer to fill it). They take full advantage of this competition by customizing their phones with apps that they use, both pre-loaded and downloaded, and typically downloading and using competing apps alongside each other.

The ability to customize their devices to the degree they are, and are able to find many types of apps for every function, is a major reason why consumers prefer pre-loaded apps. It makes things easier, and they're going to download and use the apps they want anyways. In the end, they have a device that is unique to them, serving their needs and offering new opportunities every day.



This report is produced by the Application Developers Alliance, a non-profit global membership organization that supports developers as creators, innovators, and entrepreneurs.

We promote the continued growth of the industry and advocate on behalf of our members on public policy and industry issues.

Our membership includes a global network of tens of thousands of developers with diverse skills, expertise, and interests; and hundreds of companies that depend on and work with developers.

Learn more at AppAlliance.org

APPENDIX: TOPLINE RESULTS n=4,592 EU-based Android users September 2016

1. What is your age?

| 18 - 24 | 14% |
|---------|-----|
| 25 - 34 | 24% |
| 35 - 49 | 34% |
| 50 - 64 | 23% |
| Over 65 | 4% |

2. Do you regularly use an Android phone or tablet?

| Android phone | 66% |
|----------------|-----|
| Android tablet | 6% |
| Both | 28% |

3. Do you use this device primarily for business or personal use?

| Personal | 67% |
|----------|-----|
| Work | 1% |
| Both | 32% |

4. Which app(s) do you use for SMS texting? Please choose all that apply.

| Whatsapp | 75% |
|---------------------|-----|
| Facebook Messenger | 50% |
| Messenger (Android) | 25% |
| Textra SMS | 5% |
| Go SMS Pro | 4% |
| Chomp SMS | 4% |
| EvolveSMS | 3% |
| Handcent Next SMS | 2% |
| Other | 8% |
| None | 7% |

5. Which app(s) do you use to message people (not texting)? Please choose all that apply.

| WhatsApp | 72% |
|--------------------|-----|
| Facebook Messenger | 48% |
| Snapchat | 16% |
| Google Hangouts | 12% |
| Viber | 10% |
| LINE | 7% |
| Yahoo Messenger | 5% |
| WeChat | 4% |
| Kik | 3% |
| Hangouts Dialer | 2% |
| Tango | 2% |
| BBM | 1% |
| KakaoTalk | 1% |
| Whisper | 1% |
| Slack | 1% |
| Link | 1% |
| | |
| Other | 2% |
| None | 11% |

6. Which app(s) do you use to make video and voice calls? Please choose all that apply.

| 47% |
|-----|
| 46% |
| 9% |
| 7% |
| 5% |
| 3% |
| 3% |
| 2% |
| 2% |
| 2% |
| 1% |
| 1% |
| 1% |
| 1% |
| 1% |
| |
| 2% |
| 27% |
| |

7. Which social media app(s) do you use to stay in touch with people? Please choose all that apply.

| Facebook | 79% |
|-----------------------|-----|
| Twitter | 31% |
| Instagram | 28% |
| Google Plus | 18% |
| Snapchat | 15% |
| LinkedIn | 12% |
| Pinterest | 9% |
| Tumblr | 4% |
| Vine | 3% |
| Periscope | 3% |
| Flickr | 3% |
| Moments (By Facebook) | 2% |
| Music.ly | 1% |
| Path | 1% |
| Whisper | 1% |
| Other | 1% |
| None | 13% |

10

8. Which app(s) do you use to find, review, and purchase products when shopping? Please choose all that apply.

| Amazon | 67% |
|----------------------------------------------------|-----|
| еВау | 50% |
| Google search | 42% |
| Groupon | 17% |
| Wish | 8% |
| Wallapop | 7% |
| Milanuncios | 6% |
| Zalando | 6% |
| Privalia | 5% |
| Yahoo search | 5% |
| PriceMinister | 5% |
| Vente-Privee | 4% |
| LeBonCoin | 4% |
| Shpok | 4% |
| ОТТО | 4% |
| SegundaManos | 4% |
| Retailer-specific app (e.g., Target, Macy's, etc.) | 3% |
| Etsy | 3% |
| Bing search | 2% |
| Shopfully | 2% |
| Asos | 1% |
| Jet | 1% |
| Stocard | 1% |
| | |
| Other | 2% |
| None | 15% |

9. Which app(s) do you use to find, review, and book hotels? Please choose all that apply.

| Trivago | 39% |
|------------------------------------------------------|-----|
| Trip Advisor | 37% |
| Booking.com | 36% |
| Google search | 29% |
| КАҮАК | 13% |
| Expedia Hotels | 10% |
| Hotels.com | 9% |
| Yahoo search | 4% |
| Hotel-specific app (e.g., Hilton, Holiday Inn, etc.) | 3% |
| Bing search | 2% |
| Priceline | 1% |
| Hotwire | 1% |
| Choice Hotels | 1% |
| | |
| Other | 1% |
| None | 28% |

10. Which app(s) do you use to find, review, and book flights? Please choose all that apply.

| Google search | 30% |
|---------------------------------------------------|-----|
| Expedia | 19% |
| Travelocity | 2% |
| Airline-specific app (e.g., JetBlue, Delta, etc.) | 7% |
| Priceline | 1% |
| eDreams | 18% |
| КАҮАК | 19% |
| Orbitz | 1% |
| CheapFlights | 2% |
| Yahoo search | 5% |
| CheapOAir | 1% |
| Bing search | 3% |
| SkyScanner | 12% |
| | |
| Other | 2% |
| None | 40% |
| | |

11. Which app(s) do you use to find, review, and make reservations at places to eat? Please choose all that apply.

| TripAdvisor | 35% |
|-----------------------|-----|
| Google search | 34% |
| Michelin | 10% |
| LaFourchette/The Fork | 7% |
| Yahoo search | 5% |
| Yelp | 4% |
| Restaurant Finder | 4% |
| Restaurant.com | 4% |
| Near Me Restaurants | 3% |
| Open Table | 2% |
| AroundMe | 2% |
| Bing search | 2% |
| UrbanSpoon | 1% |
| Zomato | 1% |
| | |
| Other | 1% |
| None | 39% |
| | |

12. Which app(s) do you use for email? Please choose all that apply.

| Gmail | 70% |
|---------------------------------------|-----|
| Microsoft Outlook | 33% |
| Yahoo Mail | 15% |
| GMX | 7% |
| WEB.de | 7% |
| ISP app (e.g., Orange, Telekom, etc.) | 7% |
| AOL Mail | 3% |
| Inbox by Gmail | 3% |
| All Email Providers | 3% |
| MyMail | 3% |
| ASUS Email providers | 2% |
| Mail.RU | 1% |
| | |
| Other | 3% |
| None | 4% |

13. Which productivity app(s) do you use? Please choose all that apply.

| Adobe Acrobat Reader | 49% |
|--------------------------------------------|----------|
| Google Drive (Docs, Sheets, Slides) | 31% |
| DropBox | 27% |
| Microsoft Office (Word, Excel, PowerPoint) | 25% |
| Google PDF Viewer | 23% |
| Microsoft Office Mobile | 14% |
| OneNote | 13% |
| OfficeSuite + PDF Editor | 10% |
| WPS Office + PDF | 6% |
| Polaris Office + PDF | 5% |
| Docs To Go | 3% |
| Box | 3% |
| Quick Edit | 3% 1% |
| Other | 1% |
| None | 24% |

14. Which app(s) do you use to take notes? Please choose all that apply.

| NotePad OneNote ColorNote Evernote Google Keep Keep my notes Note Everything Wanderlist Any Do | 23% 19% 14% 10% 7% 4% 2% 2% 2% 1% |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Any Do | 1% |
| Todoist | 1% |
| Remember The Milk | 1% |
| Other | 3% |
| None | 40% |

15. Which app(s) do you use to store files on the cloud? Please choose all that apply.

| Google Drive | 33% |
|-------------------------------------------|-----|
| Dropbox | 32% |
| Microsoft OneDrive | 15% |
| Adobe Acrobat | 11% |
| My Cloud | 10% |
| Amazon Drive | 4% |
| Amazon Photos | 3% |
| Cloud d'Orange | 3% |
| CM Backup | 2% |
| Box | 2% |
| pCloud | 2% |
| SFR Cloud | 2% |
| Operator-specific app (Orange, SFR, etc.) | 2% |
| Verizon Cloud | 1% |
| G Cloud Backup | 1% |
| Cloud Console | 1% |
| Cloud VPN | 1% |
| | |
| Other | 1% |
| None | 26% |
| | |

16. Which app(s) do you use to listen to music? Please choose all that apply.

| Pandora | 1% |
|---------------------------|-----|
| YouTube Music | 26% |
| Google Play Music | 20% |
| Spotify | 30% |
| iHeartRadio | 1% |
| Amazon music | 8% |
| Soundcloud | 9% |
| Samsung Music | 11% |
| Shazam | 18% |
| Apple Music | 8% |
| VeVo | 3% |
| Free Music for Soundcloud | 4% |
| Rhapsody | 1% |
| Tidal | 1% |
| | |
| Other | 3% |
| None | 25% |
| | |

17. Which app(s) do you use to watch streaming videos? Please choose all that apply.

| 75% 12% 1% 5% 5% 5% 7% |
|------------------------------------------|
| 1% 20% |
| |

18. Which app(s) do you use for e-Reading (Books or magazines)?

| Amazon Kindle | 18% |
|---------------------------------|-----|
| Play Books | 12% |
| Flipboard | 8% |
| EBook Reader | 7% |
| EBook Reader & PDF Reader | 6% |
| eBook Reader & Free ePub Books | 5% |
| Aldiko Book Reader | 5% |
| Коро | 4% |
| Play News Stand | 2% |
| FBReader (Favorite Book Reader) | 2% |
| eReader Prestigio: Book Reader | 2% |
| Moon+Reader | 2% |
| Universal Book Reader | 2% |
| Nook | 1% |
| Cool Reader | 1% |
| | |
| Other | 1% |
| None | 54% |
| | |

19. How many apps in total do you have downloaded on your Android device?

| Fewer than 10 | 26% |
|---------------|-----|
| 10 - 25 | 42% |
| 26 - 40 | 20% |
| 41 - 60 | 6% |
| More than 60 | 6% |

20. What types/categories of apps do you typically download? Please choose all that apply.

| Games Email Social, networking, and dating | 56% 47% 46% |
|--------------------------------------------------|-------------------|
| Music | 40% |
| Messaging and SMS texting | 39% |
| Shopping | 37% |
| News and media | 32% |
| Search engine | 31% |
| Video | 28% |
| App stores | 27% |
| Web browsers | 25% |
| Work, productivity, and time management | 22% |
| Find/review hotels and flights | 19% |
| Find/review restaurants | 15% |
| Other | 4% |

21. Have you ever downloaded an app to your Android device from an advertisement?

| Yes | 29% |
|----------|-----|
| No | 54% |
| Not sure | 18% |

22. Generally speaking, how often do you open an app when you receive a notification from that app?

| Almost always | 24% |
|---------------|-----|
| Frequently | 30% |
| Sometimes | 29% |
| Rarely | 13% |
| Never | 5% |

23. If you were to buy or receive a new Android device, would you prefer it to come with basic apps so it works out of the box (like an iPhone)?

| Yes | 70% |
|-----|-----|
| No | 30% |

24. Does your homescreen have mostly apps that came pre-loaded when you first got the device or mostly apps that you downloaded and moved to the homescreen?

| All apps that came with the device (no changes made) | 10% |
|--------------------------------------------------------------|-----|
| Mostly apps that came with the device | 21% |
| About half apps that came with the device, half new apps you | 29% |
| downloaded | |
| Mostly new apps that you downloaded and moved to the | 27% |
| homescreen | |
| All apps that you downloaded and moved to the homescreen | 12% |

Have you ever done any of the following to pre-loaded apps that came on your Android device:

25. Moved the app to another screen?

| Yes | 74% |
|-----|-----|
| No | 26% |

26. Moved the app into a folder?

| Yes | 52% |
|-----|-----|
| No | 48% |

27. Have you ever changed the default app for performing a task?(For example: changing the default app for using the camera, watching a video, or sending an SMS text message.)

| Yes | 44% |
|---------------------|-----|
| No | 41% |
| Didn't know I could | 15% |