Type of Mobile Apps, Mobile Screen Types, Enhance Mobile Interaction, Step to Make Powerful Mobile UI

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Type of Mobile Apps

There are three basic types of mobile apps if we **classify them by the technology**.

1. **Native apps:** these apps are created for **one specific platform or operating system**. Native apps for Google's Android OS can only work on Android mobile devices. Equally, a native app on Apple iOS can only work on iPhones/iPads. Native Android apps will not run on iOS devices; likewise, native iOS apps are useless on Android devices. **Examples** are; Google Maps, Spotify, Telegram, Waze, WhatsApp.

2. **Web apps:** Web apps behave similarly to native apps but are **accessed via a web browser** on your mobile device. They can run on desktop computers, smartphones, and tablets with web browsers. However, you **do not need to install** them on the hardware. Another characteristic of **web-based apps is adaptability**. Responsive versions can adapt to any screen size, be it a computer, laptop, or mobile device. Examples are; Amazon, Google Docs, Microsoft Office, Netflix, Slack, Walmart.

3. **Hybrid apps:** These apps **combine the capabilities of a native app and web app**. They take full advantage of a native app. It lets them access hardware features like a camera, contacts, Bluetooth, and more. At the same time, hybrid apps also function like web applications. They **retrieve web-based content and show it through a mobile WebView display**.

   Unlike native apps, hybrid apps **have cross-platform compatibility**. They are not bound by a specific operating system. **Examples**; Facebook, Gmail, Instagram, LinkedIn, Twitter, Uber.

Currently, there are more than **32** app categories in the Google Play Store and more than **24** in the Apple App Store. These lists can be narrowed down to six main categories of applications. **Common types of apps (category wise)**

1. Educational apps (Khan academy, W3schools, Google classroom, Quizlet)
2. Lifestyle apps (Health apps, Tinder, Sleep Cycle, TripAdvisor)
3. Social media apps (Facebook, Instagram, TikTok)
4. Productivity (business) apps (Slack, Google Docs, Hive, Calendly, LastPass)
5. Entertainment apps (Netflix, Twitch, YouTube)

6. Game apps (Pokemon Go, Minecraft, Mario Kart Tour)

Mobile screen types

According to the **Worldwide Screen Resolution Stats September 2023**, the most common screen resolutions across mobile, desktop, and tablet are 1920×1080, 1366×768, 1440×900, 1280×720, and 1280×1024. Desktops usually used 1280 x 720 for landscape and 720 x 1280 for portrait. Now, it's **1920 x 1080**.

Design for mobile displays from 360×640 **(mostly 420 x 640) through 414×896**. Design for tablet displays from **601×962 through 1280×800**. **Never a fixed size.**

Apple Products

iPhone	Pixel Size
iPhone 13 Pro	1170 x 2532
iPhone XR	828 x 1792
iPhone XS	1125 x 2436
iPhone XS Max	1242 x 2688
iPhone X	1125 x 2436
iPhone 8 Plus	1080 x 1920
iPhone 8	750 x 1334
iPhone 7 Plus	1080 x 1920
iPhone 7	750 x 1334
iPhone 6 Plus / 6S Plus	1080 x 1920
iPhone 6/6S	750 x 1334
iPad	
iPad Pro	2048 x 2732
iPad 3rd & 4th Generation	1536 x 2048
iPad Air 1 & 2	1536 x 2048

Android Products

Phones	Pixel Size
Nexus 6P	1440 x 2560
Nexus 5X	1080 x 1920
Google Pixel 7 Pro	1440 x 3120
Google Pixel 4 XL	1440 x 869
Google Pixel 4	1080 x 2280
Google Pixel 3a XL	1080 x 2160
Google Pixel 3a	1080 x 2220
Google Pixel 3 XL	1440 x 2960
Google Pixel 3	1080 x 2160
Google Pixel 2 XL	1440 x 2560
Google Pixel XL	1440 x 2560
Google Pixel	1080 x 1920
Samsung Galaxy Note 10+	1440 x 3040
Samsung Galaxy Note 10	1080 x 2280
Samsung Galaxy Note 9	1440 x 2960
Samsung Galaxy Note 5	1440 x 2560
LG G5	1440 x 2560
One Plus 3	1080 x 1920

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Samsung Galaxy S9 / S9+	1440 x 2960
Samsung Galaxy S8 / S8+	1440 x 2960
Samsung Galaxy S7/S7 Edge	1440 x 2560
Tablets	
Nexus 9	1536 x 2048
Nexus 7 (2013)	1200 x 1920
Pixel C	1800 x 2560
Samsung Galaxy Tab 10	800 x 1280
Chromebook Pixel	2560 x 1700

Enhance mobile interaction

1. **Increase learnability (Instant familiarity)**

   Learnability stands for how easy tasks can be attained during the first usage and how quickly users learn from the previous experience. To increase learnability, designers need to keep it simple and clear helping quickly adjust to it. In addition, the system should be **consistent and logical** so that users could identify the repeating patterns and use a mobile app intuitively.

2. **Make a clean UI**

   A big pitfall of mobile UI design is small screens of the devices. Designers have to figure out how to **include all content in a short space without turning UI into clutter**. Clean UI design helps effectively interact with a product since all the core elements can be easily reached. To create neat mobile UI, it is recommended to **use icons** as interactive components.

3. **Easy and enjoyable to use**

   Your app's UI determines how easily users can make your app do what they want. Create a UI that helps users get the value out of your app quickly and with the minimum amount of effort. Although providing valuable content is still a crucial part of developing an effective app. If your app's useful features and **great content is hidden** behind a clunky and **generally unpleasant UI**, then no one is going to hang

around long enough to discover just how much your app actually has to offer. Make sure you **put as much effort into designing and developing your UI** as you put into crafting your app's content and features.

4. **Consistency**

A good UI establishes the rules of your app early on and sticks with them throughout. Once users feel **comfortable interactin**g with a single screen in your app, they should be able to **find their way around your entire app**.

5. **Preventing user frustration**

UI should ensure users **never feel confused or frustrated** by your app, by gently **guiding them toward the tasks they need to complete next** in order to get value (work done) from your application. Whether your UI takes the subtle approach (such as using size and color to make certain UI elements stand out) or a more obvious approach (for example, highlighting the text field the user needs to complete next), you should make sure the user never has ask, "So what am I supposed to do next?"

6. **Helping users fix their mistakes**

A good UI is like a **helpful, non-judgmental friend, gently pointing out where you've gone wrong and giving you advice on how to fix it**.

Imagine your app contains a form that users need to complete before tapping Submit. The user completes this form and taps the Submit button, but nothing happens. At this point, your app can either leave them wondering whether the Submit button is broken or your UI can step in and show them what's wrong by underlining the one text field they forgot to fill in. (missed field, wrong format)

7. **Providing a better overall Android experience**

Because it is not all about app. If you **design your UI well** and **follow Material Design principles**, app will feel like a seamless extension of the Android platform and an extension of the other apps users have installed on their device. By putting the effort into designing UI, you can actually improve the user's overall experience.

8. **Consider multiple holds**

We all are different in many ways, even how we hold smartphones.

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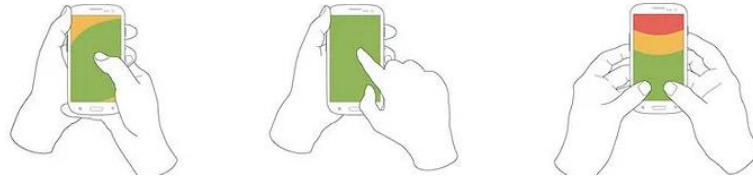
There are three common types of holding a mobile. The first is when we take it with one hand and navigate it with a thumb. Another way is to hold a smartphone in one hand and interact with it with the forefinger of the other hand. Also, the type which is common for chatting people is holding a phone in two hands using both thumbs for actions.

Considering this fact, designers have to figure out if the layout elements placed effectively for different holds. One-handed hold requires special attention since it has the most limited space of reach. To make the interaction process within a mobile app effortless, it may be a good idea to **put the key components at the bottom of screen** so that users would be able to reach tap areas easily. In addition, the interactive elements should be big enough so there would be no chance for a mistap.

9. **Add game mechanics (gamification)**

Effective mobile interaction system should be simple & clear. However, simplifying the interface, it is vital **not make it boring**. Apps that seem ordinary have fewer chances to **gain users' attention.** That is why it is important to **bring some emotional aspects** into applications. To make design interesting & catchy, good idea is to **use gamification**. Various **challenges & leaderboards along with the awards & stickers motivate users to interact with a product more & come back to it constantly**.

Step to make powerful mobile UI

A successful UI should be made by following the below key steps:

1. **Clear and concise:** UI is how the app communicates with users. Make sure it is clear what your app is trying to say. If the user cannot glance at every single screen within your app and immediately know what the screens asking them to do, then your UI is not clear enough. Do **not overcrowd your app** with the bunch of unnecessary words. **Avoid** adding the element of **ambiguity and make the language easier**. Try to keep the design as simple as possible.

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An effective UI strikes a **balance between being clear and concise**. If you design your UI well, the user will immediately know that the **+** icon in music-playing app means add new track to playlist. Create buttons that are easier to understand such as choosing the **red color for the delete option.** You need to keep in mind that if somebody is using your app for the first time, he should be familiar with call-to-action (CTA) keys (e.g. buy now, sign-up, download now etc.).

2. **Responsive:** No matter how great your app's content, if the UI is **laggy (slow) & prone to freezing**, no one wants to use it. Effective UI is **responsive, smooth**, and plays out like a conversation between the user and your application. App should have a **good navigation speed & should not lack behind**. Note that according to one of the **surveys, 53% lose their interest** in the mobile app due to slow speed.

3. **Easy on the eye:** In an ideal world, it would not matter how attractive your UI is (or is not). After all, if your content is good, what does it matter if your buttons are not **perfectly aligned**? On the other hand, if your images are not quite as **high-definition** as they could be? The simple truth is that it does matters a lot.

   It is not enough for UI to be clear, consistent, and responsive; it has to look nice, too.

4. **Appealing design:** It is also worth noting that creating an appealing, professional-looking UI may mean forgoing your own tastes and sticking with the safe option. Your app need to be **aesthetically pleasing to the target audiences** in order to attract more. In order to achieve that, the best way is to incorporate some animations if your app demands so. Trends are changing and today the **static images and animations have been replaced by the motion pictures**.

   Choose color wisely by remembering that you are trying to attract audience.

5. **Choose the Appropriately Sized Fonts:** font play a crucial role in deciding the fate of the interface whether it is website or a mobile app. Therefore, the UI designers have to **take clear stand** while choosing the font for the app; both in case of style and size. **Do not go for very stylish fonts that are difficult to comprehend**.

   In addition, **font size should match with interface design**. It must be appropriate; **neither should it be too small** making it difficult to read the content or large so that you face the difficulty in adjusting the entire content.

6. Keep **following the latest design trends and target users.**