Operating System Comparison Activity

Market Share

Android's market share ranges from 70.1% to 71.65%, while Apple's is between 27.62% and 29.2%. Globally, Android dominates, controlling over two-thirds of the mobile OS market.

Availability in 2-3 years

The two OS are expected to continue evolving, with iOS gaining ground in the U.S. market and offering extended support for older devices. Apple will still maintain a grace period of 1 to 2 years between major releases, while Google is committed to providing 5 years of full updates for its Pixel devices, though consistency will vary among other manufacturers. Both platforms will continue to introduce new features and significant improvements in the future.

Features

Android prioritizes customization and expanded connectivity. One example of this is Android 14 introducing larger fonts and Android 15, that will bring satellite connectivity and a high-quality camera mode. In contrast, iOS emphasizes privacy, interactive features like StandBy mode and enhancements like better two-factor authentication privacy.

Mono vs Multivendor hardware availability

There are between 100 and 200 companies worldwide that manufacture Android mobile devices, including major brands such as Samsung, Huawei, Xiaomi and Google. In contrast, only Apple produces iOS devices.

Restrictions in terms of copyright, patents, availability of source code

In one hand, iOS is a closed system, with Apple's proprietary source code unavailable to third-party developers, ensuring consistent control across devices. In the other hand, Android is an open-source platform, allowing developers and manufacturers to modify the system freely. This enables customization by manufacturers like Nokia but also can result in fragmentation, complicating app development.

Security

In general, iOS is known for being more secure due to its closed ecosystem, strict control over apps in the Apple Store and the ability to roll out security updates quickly and globally. Android, in the other hand, offers more flexibility, allowing users to download apps from different sources and customize the system, which can introduce security risks. However, some studies suggest that security ultimately depends more on user behaviour than on the operating system itself, as both platforms offer solid protections when used responsibly.

Development tool support

The two OS offer extensive developer resources, but Android's are significantly more abundant and detailed. With just a Google search, there are approximately 25 times more resources for Android development (1.86 billion results) compared to iOS (73.5 million). While iOS tools may reduce the need for extensive resources focusing on simplicity with streamlined APIs, Android's broader capabilities and variety make it more accessible for any type of developers.

Learning curve for developers

Both Kotlin and Swift are beginner-friendly languages used for Android and iOS development, respectively. Kotlin is easy to learn, especially for people with Java experience and integrates well with existing Java code. Swift has a simple syntax and safety features that speed up development, but it requires a Mac and offers limited support in its IDE, Xcode.

Developing Costs

Developing an Android app requires optimizing for a wide range of devices, increasing time and cost, while iOS development is simpler with fewer devices to support. Testing and design flexibility vary between the two, with iOS apps typically facing stricter review processes.

Recommendations

In my opinion, the client should develop an Android app not only to tap into a larger market share but also to use in their favour the greater customization and flexibility that Android offers. This adaptability allows the client to differentiate itself more effectively from competitors and potentiate their personal brand. Additionally, the open-source nature of Android provides access to a wide range of tools and libraries that can streamline the development process. This, coupled with the generally quicker review process for Android apps compared to iOS, enables the client to engage with users more rapidly. Finally, the difference in access and initial investment could also be considered a decisive factor. Obtaining a high-end mobile device and computer for developing iOS apps can cost around £2500 or more, while acquiring high-end equipment for Android development can be approximately £1200.

References:

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