

**ANDROID IS AN OPEN-SOURCE, ROBOTICS LINUX-BASED OPERATING SYSTEM
DEVELOPED BY GOOGLE, DESIGNED FOR TOUCHSCREEN MOBILE DEVICES
LIKE SMARTPHONES AND TABLETS****Adrita Banik, Shreyoshi Halder, Devojit Dev, Nandita Bera*, Dr. Dhrubo Jyoti Sen**

School of Pharmacy, Techno India University, Salt Lake City, Sector-V, EM-4/1, Kolkata-700091, West Bengal, India.

***Corresponding Author: Nandita Bera**School of Pharmacy, Techno India University, Salt Lake City, Sector-V, EM-4/1, Kolkata-700091, West Bengal, India. DOI: <https://doi.org/10.5281/zenodo.19606066>**How to cite this Article:** Adrita Banik, Shreyoshi Halder, Devojit Dev, Nandita Bera*, Dr. Dhrubo Jyoti Sen (2026). Android is an Open-Source, Robotics Linux-Based Operating System Developed By Google, Designed for Touchscreen Mobile Devices Like Smartphones and Tablets. World Journal of Pharmaceutical and Medical Research, 12(4), 428-431. This work is licensed under Creative Commons Attribution 4.0 International license.

Article Received on 21/02/2026

Article Revised on 11/03/2026

Article Published on 01/04/2026

ABSTRACT

In the context of technology, "Android" refers to an open-source mobile operating system based on the Linux kernel, primarily used for smartphones and tablets. Android is an open-source Linux-based operating system for mobile devices, home appliances, and enterprise handhelds. In this article, learn more about the operating system, its features, versions, and benefits. (In science fiction) a robot with a human appearance. An open-source operating system used for smartphones and tablet computers. The first commercial version, Android 1.0, was released on September 23, 2008. The operating system has been developed by Google on a yearly schedule since at least 2011.

KEYWORDS: android, tablet, mobile, Google, Linux, pixel.**INTRODUCTION**

Android 14 is the fourteenth major release and the 21st version of Android, the mobile operating system developed by the Open Handset Alliance led by Google. Both the Google & AOSP versions were released to the public on October 4, 2023. The first devices to ship with Android 14 were the Pixel 8 and Pixel 8 Pro. As of March 2026, 13.80% of Android devices run Android 14, making it the fourth-most widely used version of Android. This is the oldest Android version supported with the security source code. Android 14 (internally codenamed Upside Down Cake), was announced on February 8, 2023. Android 1.0, the first commercial version of the operating system, was released on September 23, 2008, and made its debut on the HTC Dream (also known as the T-Mobile G1). Introduced by Andy Rubin and team, this initial release featured a physical QWERTY keyboard, trackball, and essential Google apps like Maps, Gmail, and YouTube. The Android operating system and company were named after one of its founders, Andy Rubin, who was known for his love of robots, earning him the nickname "Android. Android, the mobile operating system, was invented in 2003 by Andy Rubin, Rich Miner, Chris

White, and Nick Sears, who founded Android Inc. Google acquired Android Inc. in 2005 and subsequently developed and released the Android operating system, with the first Android phone, the HTC Dream (also known as the T-Mobile G1), launched in 2008 September. Android is a operating system based on a modified version of the Linux kernel and other open-source software, designed primarily for touchscreen-based mobile devices such as smartphones and tablets. Android is an open-source Linux-based operating system for mobile devices, home appliances, and enterprise handhelds. Android is an operating system owned by Google which is based on a modified version of the Linux kernel and other open-source software, designed primarily for touchscreen-based mobile devices such as smartphones and tablet computers. Android has historically been developed by a consortium of developers known as the Open Handset Alliance, but its most widely used version is primarily developed by Google. First released in 2008, Android is the world's most widely used operating system; it is the most used operating system for smartphones, and also most used for tablets; the latest version, released on June 10, 2025, is Android 16.



Figure-1: Logo of Android.

Developers: Android was originally developed by Android Inc., founded in October 2003 by **Andy Rubin, Rich Miner, Nick Sears, and Chris White**. The company was created to build smarter operating systems for digital cameras before shifting focus to mobile phones. Google acquired Android Inc. in 2005, subsequently leading the development of the operating system.

Key Details regarding the creation of Android

Founders: Andy Rubin (often called the "Father of Android"), Rich Miner, Nick Sears, and Chris White.

Initial Goal: To create an open operating system for cameras, later pivoting to mobile phones.

Acquisition: Google acquired the company in 2005 for roughly \$50 million.

Launch: The first publicly available Android phone was the HTC Dream (T-MobileG1) in 2008.

Partnership: The Open Handset Alliance, led by Google, was formed in 2007 to develop the OS further.

Andrew E. Rubin [Father of Android] (born March 13, 1963) is an American computer programmer, entrepreneur, and venture capitalist. Rubin founded Danger Inc. in 1999 and left in 2003; Danger was eventually acquired by Microsoft in 2008. Rubin founded Android Inc. in 2003, which was acquired by Google in 2005; Rubin served as a Google vice president for nine years and led Google's efforts in creating and promoting the Android operating system for mobile phones and other devices during most of his tenure. Rubin left Google in 2014, initially presented as a voluntary departure; but later revealed to be a dismissal due to allegations of sexual harassment by Rubin. Rubin then served as co-founder and CEO of venture capital firm Playground Global from 2015 to 2019. Rubin also helped found Essential Products in 2015, a mobile phone start-up that closed in 2020 without finding a buyer. In 2019, Rubin was inducted into the Wireless Hall of Fame.



Figure-2: Developers of Android.

Rich Miner (born 1964) is an investment partner on the GV team. Miner joined the GV team in March, 2009 and is based out of Cambridge, MA. Before joining GV, Miner was a co-founder of Android, Inc., origin of the Android mobile operating system and was an executive on the Android team after its acquisition by Google. Miner also co-founded Wildfire Communications, a voice communications startup that was sold to Orange in April 2000. He has a doctorate in computer science from the University of Massachusetts Lowell. In 2019, Miner was inducted into the Wireless Hall of Fame for his position in the wireless industry. The Richard A. Miner

School of Computer & Information Sciences at UMass Lowell was named after Miner in 2022.

Nick Sears is a co-founder of Android is a mobile internet and smartphone pioneer. During his eight years at Google after the acquisition of Android, Nick helped launch and grow Android OS. He negotiated the first Android carrier agreement with T-Mobile. Nick served as account manager of the first Android device (T-Mobile G1) and the first open app store (Google Play) which allowed third party developers to distribute apps directly to end users without carrier or individual app approval. Early in Nick's career he was a financial

analyst and later a product manager for AT&T Wireless. Then as a Vice President at T-Mobile USA, Nick led product management and marketing teams through the convergence of mobile phones, personal computers and the Internet. During his tenure there, T-Mobile developed groundbreaking devices like the first BlackBerry phone and the T-Mobile Sidekick.

2013, he taught classes for PLU's MBA program and wrote 7 Career Drivers for career development. He currently serves as chief career coach and founder of the career counselling website Big Career. Nick was inducted into the Wireless Hall of Fame in 2019.

Sears received his bachelor's and master's degrees from Pacific Lutheran University. After leaving Google in

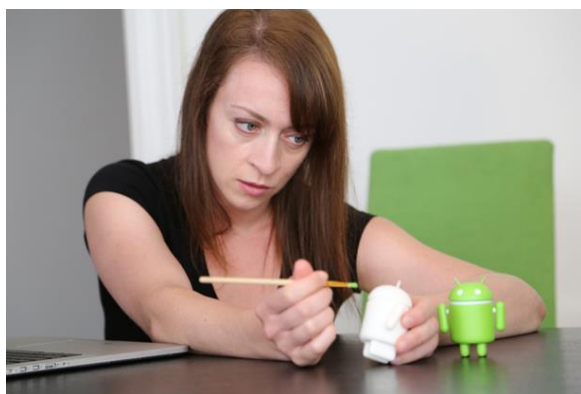


Figure-3: Irina Blok; graphics designer.

Chris White is a computer programmer specializing in user interface and operating systems for emerging technology. He was co-founder and CTO of Android Inc, and helped build the Android engineering team at Google. Chris has been fortunate to work with and learn from some of the brightest people at several cool companies, including Apple Computer, Artemis Research, General Magic, and Sun Microsystems. He received his B.S. in Computer Science from Syracuse University.

splash screens, packaging, and promotional materials. Because it reminded (us of a) nostalgic code colour, and it would stand out against dark background." Code colour probably refers to the colour of text in Monochrome monitors, derived from the green "P1" phosphor. The creative team sought an energetic colour that appealed to a broad audience. Bright green symbolizes growth and stands out on screens and promotional materials. This choice also gave the mascot a friendly and modern feel, matching the open and innovative personality of the Android platform.

The Android logo is meant to represent the open-source nature of the operating system and its adaptability to different devices. The green colour represents growth, progress, uniqueness and the struggle for newness, while the shape of the robot symbolizes technology and innovation. The Android logo represents the face of a globally recognized mobile operating system. People often think of a minor green character with antennae and a simple shape. That figure has become standard on phones, tablets, and other gadgets. It appears on software

Android 15 is the fifteenth major release and the 22nd version of Android, the mobile operating system developed by the Open Handset Alliance and led by Google. The first developer preview was released on February 16, 2024, the first beta was released on April 11, 2024, and the final source code was released on September 3, 2024. Android 15 was released for Google Pixel devices on October 15, 2024.



Figure-4: Android global networking.

Android 16 As of March 2026, 20.16% of Android devices run Android 15, making it the second-most used version of Android. Android 16 is the sixteenth major release and the 23rd version of Android, the mobile operating system developed by the Open Handset Alliance and led by Google. The first developer preview was released on November 19, 2024. The first beta was released on January 23, 2025. Google released the final version on June 10, 2025. As of March 2026, 21.61% of Android devices run Android 16, making it the most widely used version of Android. **Irina Blok** (born c. 1977) is a graphic designer and an artist. She is best known for the creation of the Android logo including its green robot icon. She was born and raised in Saint Petersburg, Russia, until she and her parents moved to Silicon Valley, a region in Northern California, when she was 18 years old. She comes from a family of engineers, her parents and her grandparents were all engineers, making her their only graphic designer. Android 16 is the sixteenth major release and the 23rd version of Android, the mobile operating system developed by the Open Handset Alliance and led by Google. The first developer preview was released on November 19, 2024. The first beta was released on January 23, 2025. Google released the final version on June 10, 2025.

Android 17 as stable release of Android 17 (codenamed "Cinnamon Bun") is expected in June or July 2026. Google will roll out the update to Pixel devices first, followed by flagship and mid-range devices from other manufacturers later in 2026 and early 2027. Beta testing has been underway since February 2026.

Key Details regarding Android 17

Beta Stage: The third Android 17 beta was released on March 28, 2026.

Initial Rollout: Pixel smartphones will be the first to receive the stable update, with a likely June 2026 launch date.

Features: Early reports indicate that the beta includes system-level controller remapping, allowing customization across all games.

Timeline: While flagships may see updates soon after the June/July launch, budget devices will likely receive it later in 2026 or early 2027. As of March 2026, 21.61% of Android devices run Android 16, making it the most widely used version of Android.

Android 18 is projected for release around August 1, 2027, according to specialized mock-up tracking. As a future operating system based on current annual release cycles, it will likely follow Android 17 (expected 2026) and continue the trend of late-summer or early-fall launches, with supporting hardware beginning to arrive late that year.

Key Aspects of the Android 18 Timeline

Anticipated Release: August 1, 2027 (based on projections).

Preceded by: Android 17 (expected 2026).

Support Cycle: Expected to be supported through 2037.

Current Development: As of April 2026, Android 16 is in development for 2025, placing Android 18 firmly in the future development cycle.

Yahoo Mail: Search, Organize, Conquer

CONCLUSION

The security of Android depends on the timely delivery of updates to fix critical vulnerabilities. Unfortunately few devices receive prompt updates, with an overall average of 1.26 updates per year, leaving devices unpatched for long periods. We showed that the bottleneck for the delivery of updates in the Android ecosystem rests with the manufacturers, who fail to provide updates to fix critical vulnerabilities. This arises in part because the market for Android security today is like the market for lemons: there is information asymmetry between the manufacturer, who knows whether the device is currently secure and will receive updates, and the consumer, who does not. Consequently there is little incentive for manufacturers to provide updates. To address this issue we developed the FUM security metric to quantify and rank the performance of device manufacturers and network operators, based on their provision of updates and exposure to critical vulnerabilities. The metric enables purchasers and regulators to determine which device manufacturers and network operators provide updates and which do not. Using a corpus of 20 400 devices we demonstrated that there is significant variability in the timely delivery of security updates across different device manufacturers and network operators. We find that on average 87.7% of Android devices are exposed to at least one of 11 known critical vulnerabilities and, across the ecosystem as a whole, assign a FUM security score of 2.87 out of 10. In our data, Nexus devices do considerably better than average with a score of 5.17; LG is the best manufacturer with a score of 3.97.

REFERENCES

1. [https://en.wikipedia.org/wiki/Android_\(operating_system\)](https://en.wikipedia.org/wiki/Android_(operating_system))